



2017 Costs & Returns of **TOMATO** Production



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Presentation of Survey Results
PSA Eton Cyberpod Centris 3, Quezon City
<1:00 to 5:00 PM>, <6 April 2018>

OUTLINE OF PRESENTATION

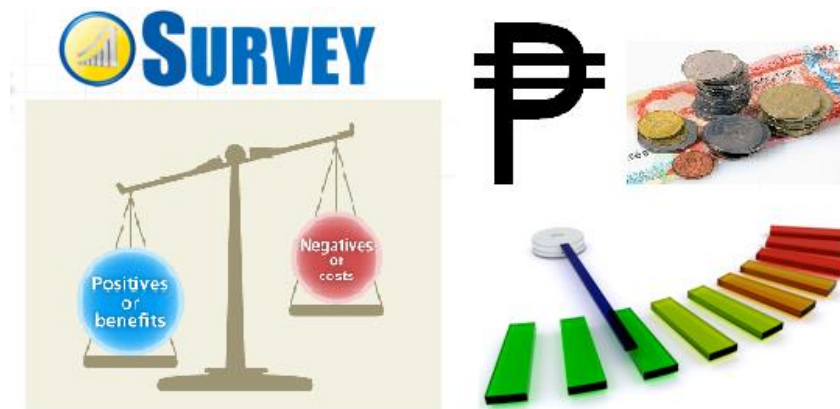
1. Background, Rationale & Objectives
2. Basic Concepts
3. Methodologies
4. Response Rates
5. Survey Results
6. Data Comparisons



What is the Survey on Costs and Returns (SCR)?

A survey that generates information on the costs and returns of production of agricultural commodities.

It provides economic performance indicators for agriculture which are fundamental to improving market efficiency and decision-making.





BACKGROUND & RATIONALE

Costs and Returns data are among the highly requested information from major users such as policy analysts, national accounts compilers, farmers and agribusiness entrepreneurs.



The last Survey on Costs and Returns of Tomato Production was done in **1998.**

The cost of production (CoP) data generated by the 1998 survey were rather old and may no longer be reflective of the current situation.



OBJECTIVES

General Objective:

- To generate data on costs and returns of producing agricultural commodities, particularly *TOMATO*.

Specific Objectives:

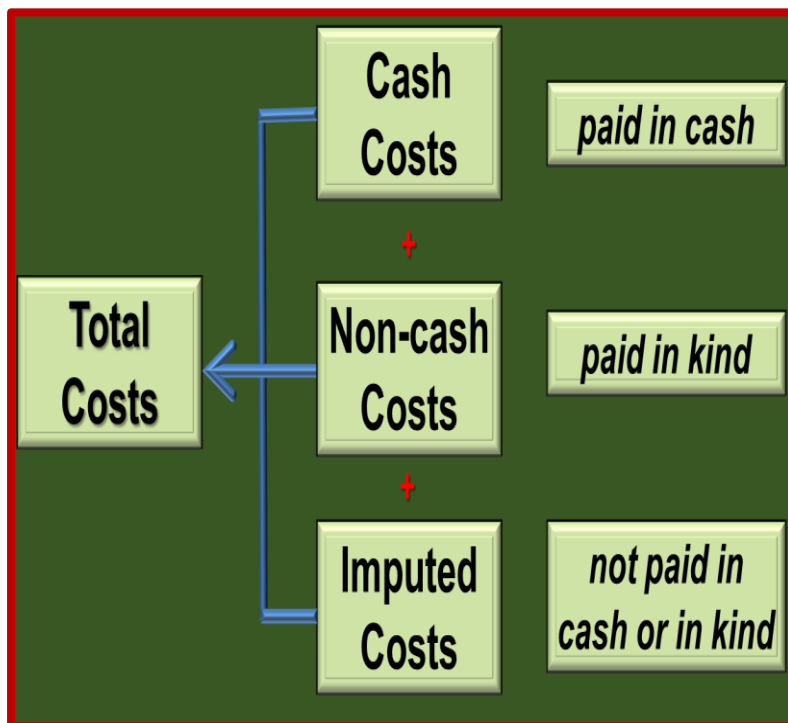
- establish an up-to-date production costs structure;
- determine indicators of profitability such as gross and net returns, returns above cash cost, returns above variable cost, etc.;
- come up with an updated data set on average use of material and labor inputs; and,
- generate other related socio-economic variables.



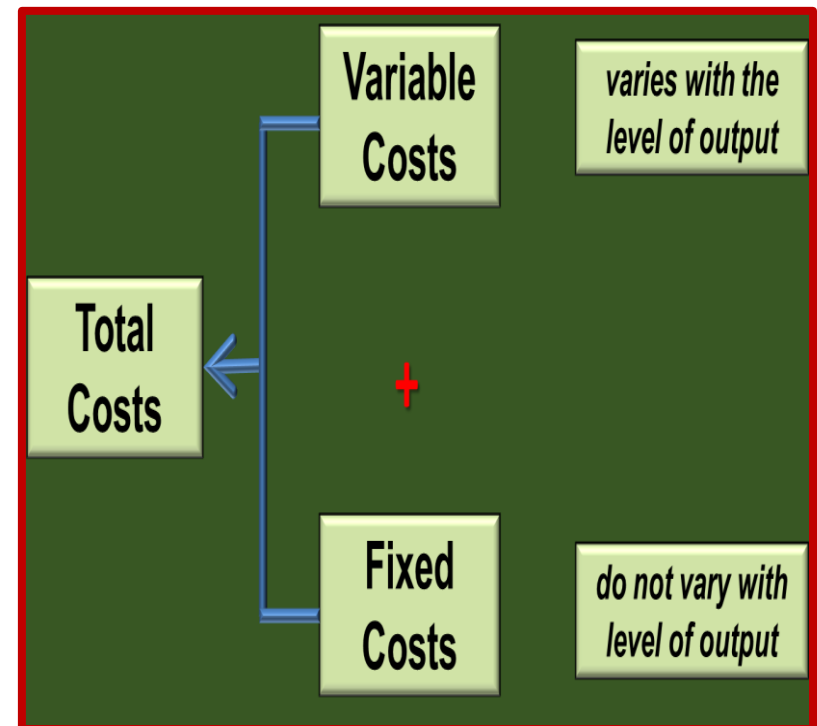
BASIC CONCEPTS

Cost Classification

In relation to **CASH FLOWS**



In relation to **PRODUCTION LEVEL**





BASIC CONCEPTS

Specific Cost Items

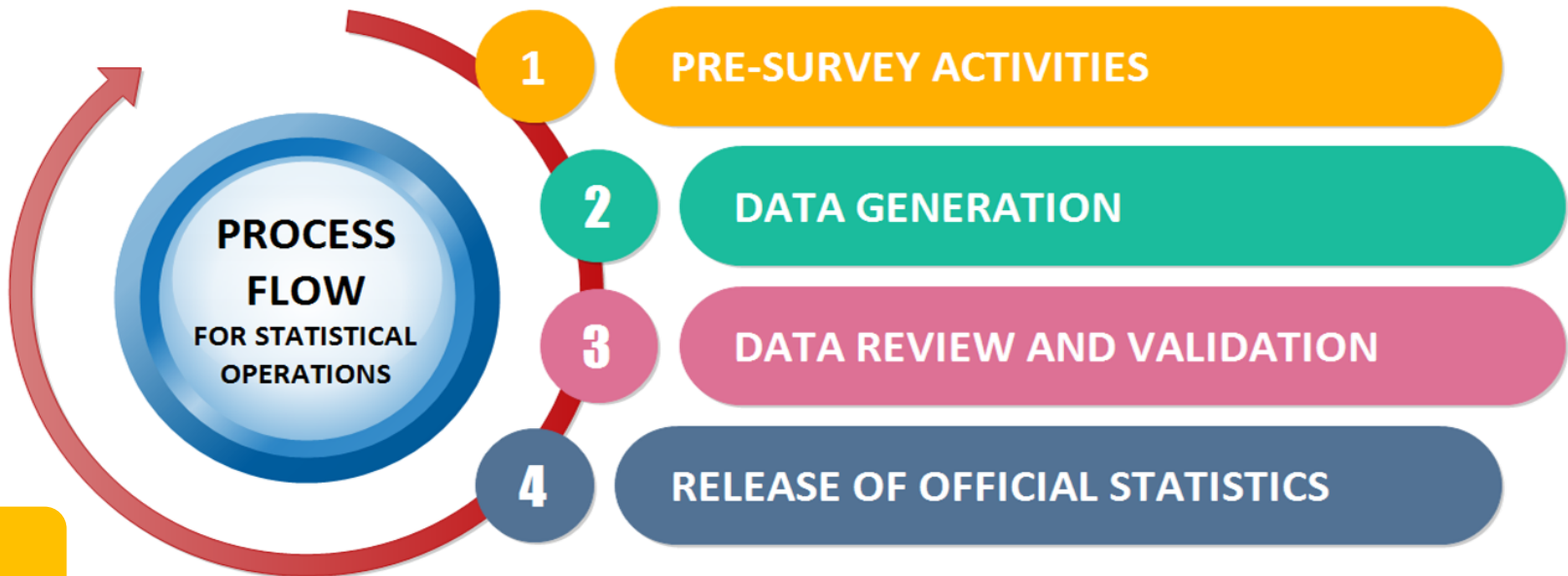


Items in the Costs and Returns data tables for Tomato Production:

- | | |
|-------------------------------|-----------------------------------|
| 1. Planting materials (Seeds) | 13. Fuel and oil |
| 2. Fertilizers | 14. Interest payment on crop loan |
| 3. Pesticides | 15. Food expense |
| 4. Hired Labor | 16. Transport costs |
| 5. Operator Labor | 17. Landowner's share |
| 6. Family Labor | 18. Financier's share |
| 7. Exchange Labor | 19. Depreciation |
| 8. Soil Ameliorants | 20. Electricity cost |
| 9. Mulching Materials | 21. Repairs cost |
| 10. Water Expense | 22. Interest on operating capital |
| 11. Land tax | 23. Rental value of owned |
| 12. Rentals | land/animal |



METHODOLOGIES



1

1. Survey Planning & Programming
2. Statistical Design
3. Frame Development/Updating
4. Preparation of survey instruments:
 - a. Questionnaires
 - b. Manual of Operations
 - c. Editing and Coding guidelines
 - d. Data Processing Program Manual
5. Training/Briefing of C.O staff, field staff and statistical researchers

2

1. Data Collection
2. Manual Editing
3. Machine Processing
4. Generation of Statistical Tables

3

1. Provincial Data Review
2. Regional Data Review
3. Central Office Data Review
4. Preliminary Estimates
5. Quality Checks
6. Final Estimates

4

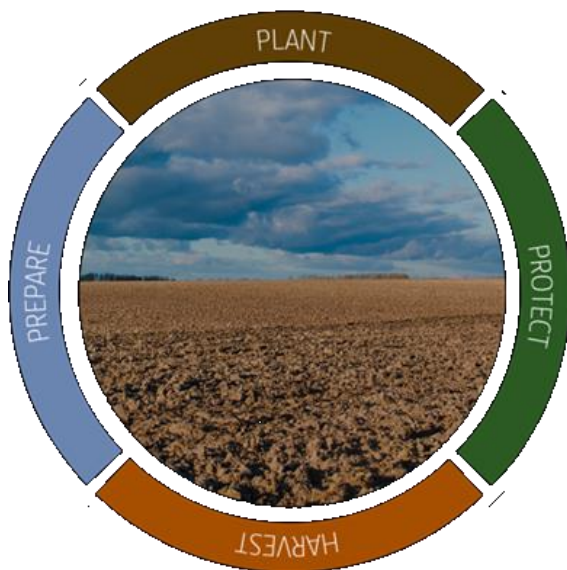
1. Packaging of Statistical Reports
2. Dissemination



METHODOLOGIES

REFERENCE PERIODS

- For Luzon and Visayas, the reference period was the *last completed cropping cycle* within September 2016 to May 2017.
- For Mindanao, the reference period was the *last completed cropping cycle* within January 2017 to September 2017.



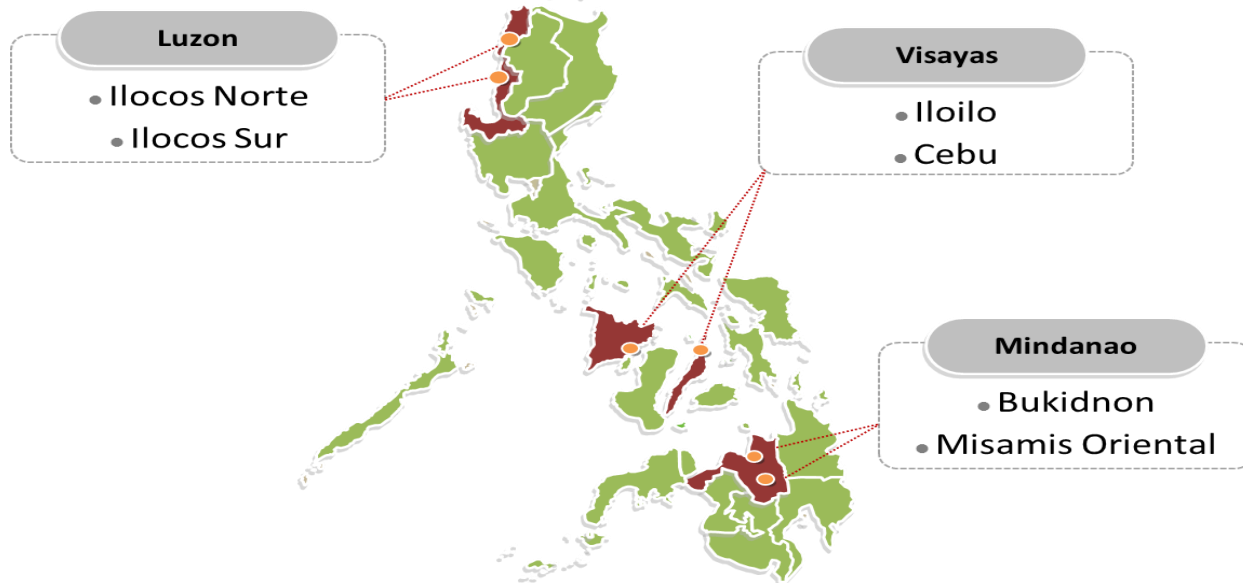
Cropping Cycle – refers to the cycle of activities related to the growth and harvest of a crop. These activities include land preparation, sowing/planting, fertilizer application, watering/irrigation and harvesting.



METHODOLOGIES

COVERAGE

- The domain of the study is the province.
- The survey covered the top six (6) tomato producing provinces from each major island group, namely:



- The target sample/respondents are the tomato sample farmers who planted and harvested tomato within the reference period and are knowledgeable on the details of tomato farming particularly on the investments, material inputs, labor expenses incurred and the disposition of produce.



METHODOLOGIES

SCOPE

The data to be collected are the following:

- **Basic characteristics of the sample farmer, the farm and farmer's household;**
- **Farm investments;**
- **Material inputs;**
- **Labor inputs;**
- **Other production costs;**
- **Production and disposition;**
- **Basic marketing and credit information;**
- **Access to support services;**
- **Problems related to production and marketing;**
- **Basic information on effects of climate change; and**
- **Recommendations and future plans**

METHODOLOGIES

<p>SAMPLING DESIGN AND SAMPLE SELECTION</p>	<p>Two-stage sampling design</p> <ul style="list-style-type: none"> • <u>Primary Sampling Unit (PSU):</u> top-producing barangays ranked based on the volume of tomato production, total area cultivated for tomato and number of tomato farms/farmers during the year 2016-2017. • <u>Secondary Sampling Unit (SSU):</u> tomato farmer that is selected using snowball approach
<p>SAMPLE SIZE</p>	<p>75 Sample farmers per province.</p>

Snowball sampling - is a “special” ***non-probability sampling*** technique where existing study subjects recruit future subjects from among their acquaintances.

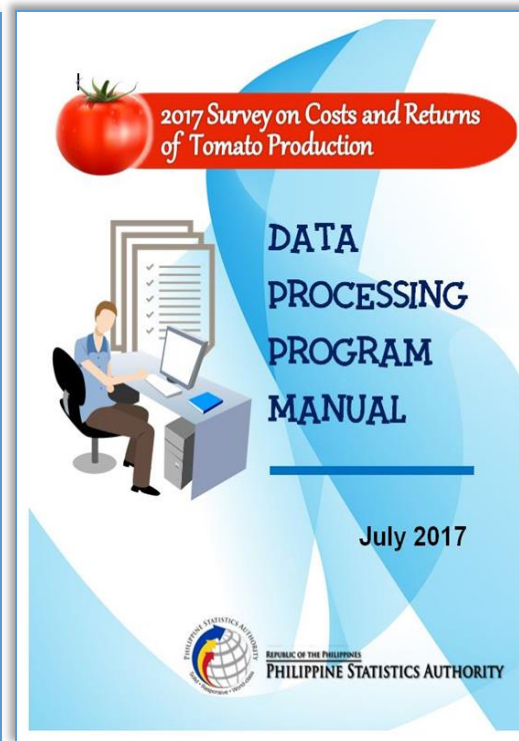
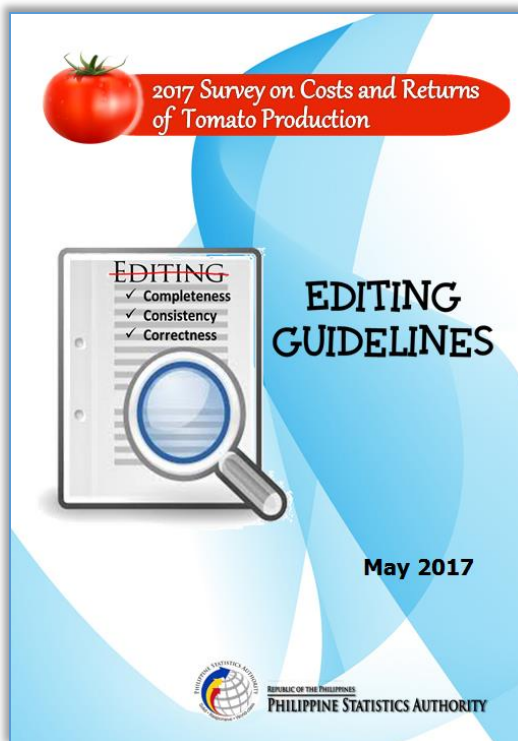
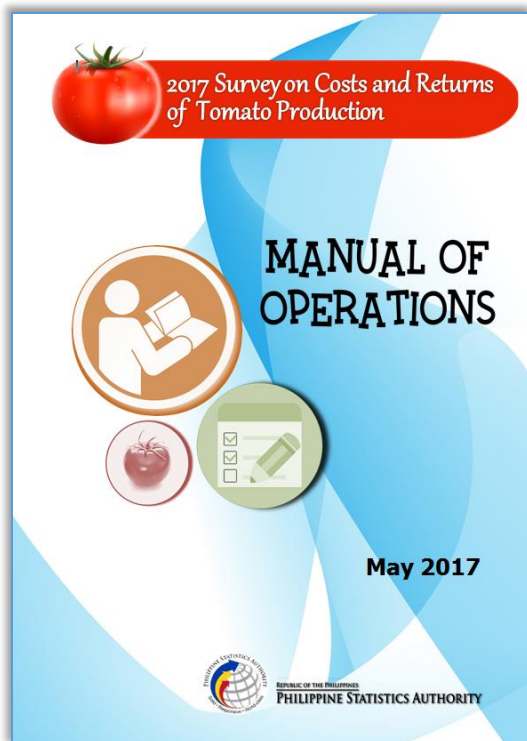
Thus, the sample group is said to grow like a rolling snowball. As the sample builds up, enough data are gathered to be useful for research. This method is used when the survey’s objective is after very specific characteristics.



METHODOLOGIES

SURVEY INSTRUMENTS

- 14-page questionnaire consisting of 15 blocks
- Field Operations Manual
- Editing and Coding Guidelines
- Data Processing Program Manual

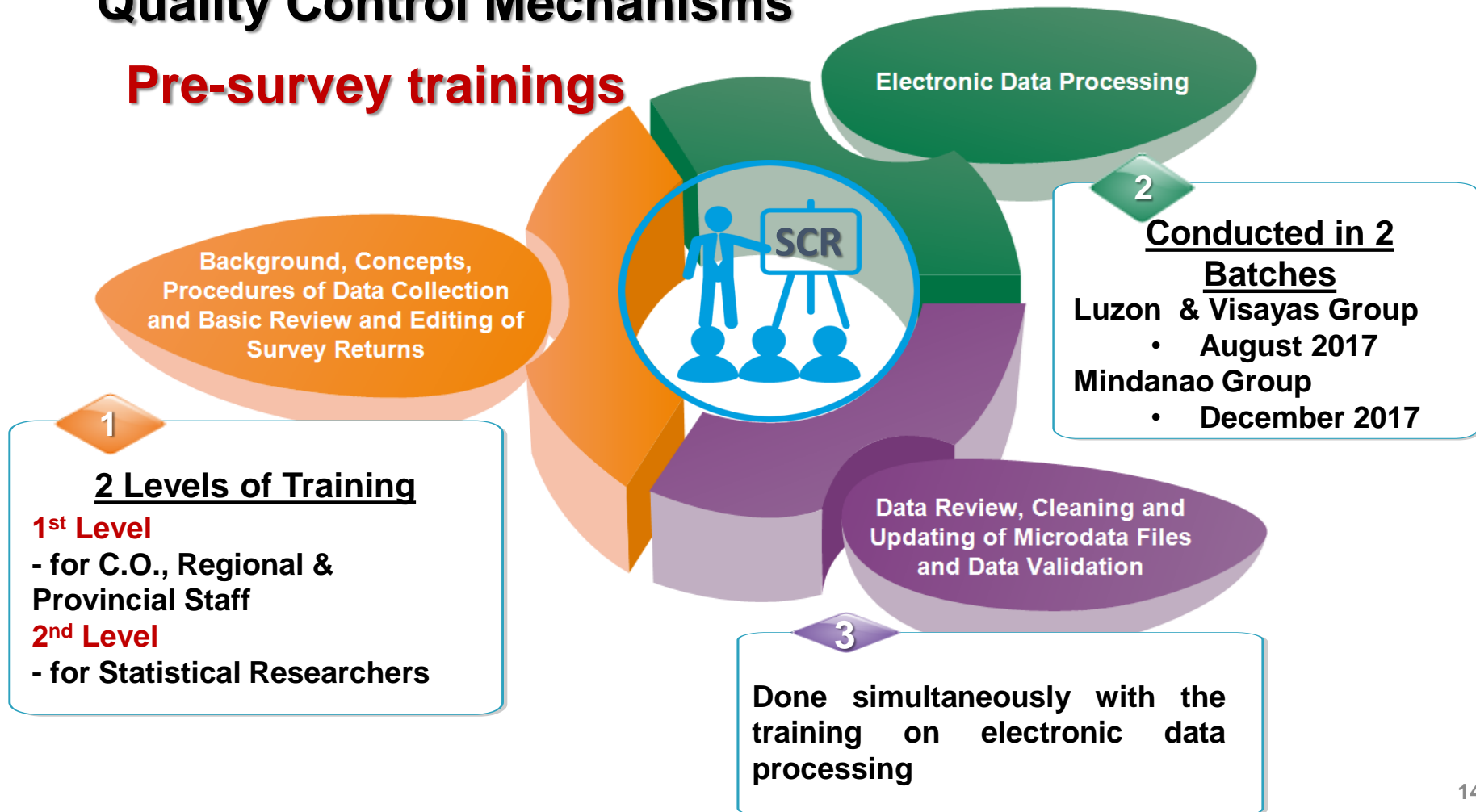




METHODOLOGIES

Quality Control Mechanisms

Pre-survey trainings



METHODOLOGIES

Quality Control Mechanisms

DATA COLLECTION AND SUPERVISION

Following the seasonality of the crop, data collection was done on the following dates:

- July 2017 – Luzon and Visayas provinces
- October 2017 – Mindanao provinces

1. Face-to-face interview by Statistical Researchers
2. Use of a structured questionnaire (14 pages)
3. Spot-checking and ground validation/back-checking by PSO/RSSO supervisors

DATA PROCESSING

Customized data processing system was developed for the survey using MS Excel:

1. Data capture
2. Flat file / microdata file
3. Electronic data editing
4. Data tabulation

METHODOLOGIES

Quality Control Mechanisms

DATA REVIEW AND ANALYSIS

Three (3) levels
of data review:
Provincial,
Regional and
Central Office
Data Reviews

Check for
completeness,
accuracy and
consistency of
estimates

Consider
production
trends, prices
and other
auxiliary data

Spatial
and
Temporal
Analysis





RESPONSE RATES

Province	Number of Sample Tomato Farmers		
	Qualified	Successfully Interviewed	Response Rate
Total	450	450	100.00
Ilocos Norte	75	75	100.00
Ilocos Sur	75	75	100.00
Iloilo	75	75	100.00
Cebu	75	75	100.00
Bukidnon	75	75	100.00
Misamis Oriental	75	75	100.00





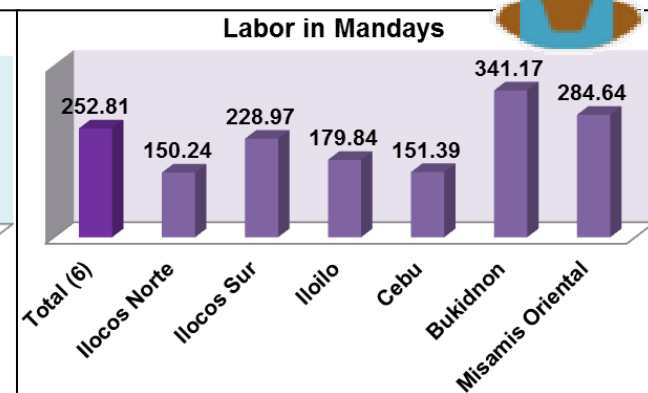
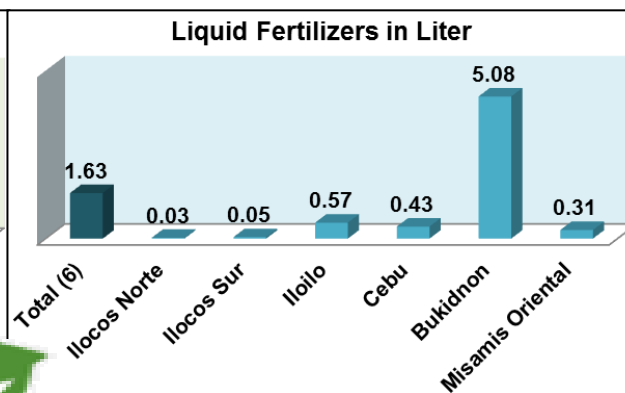
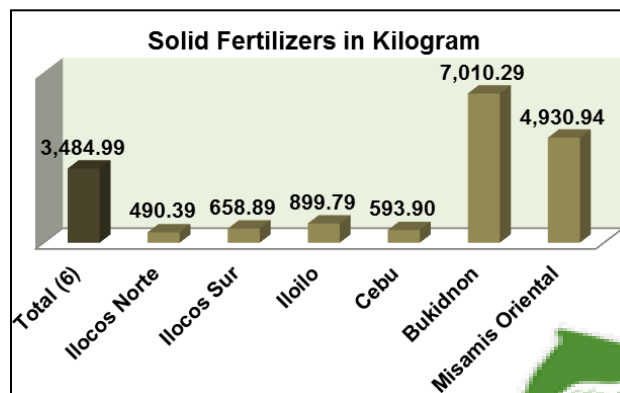
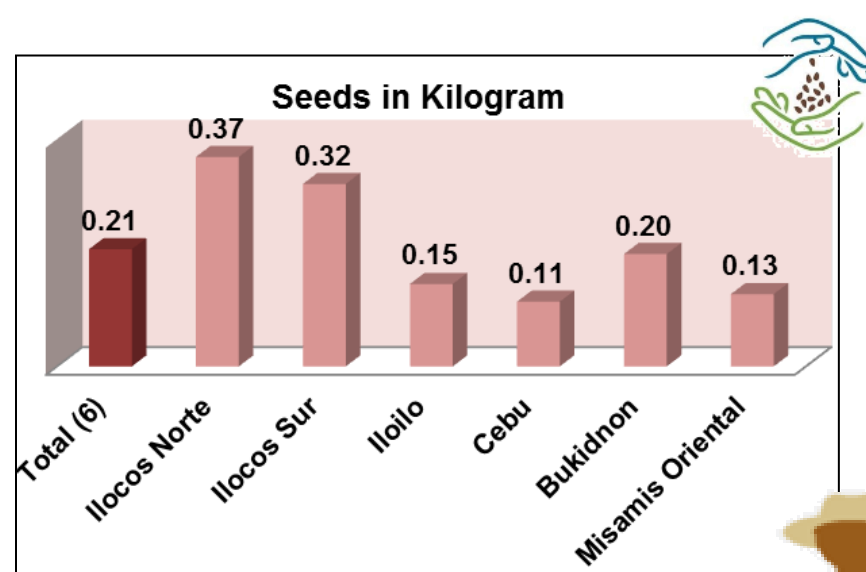
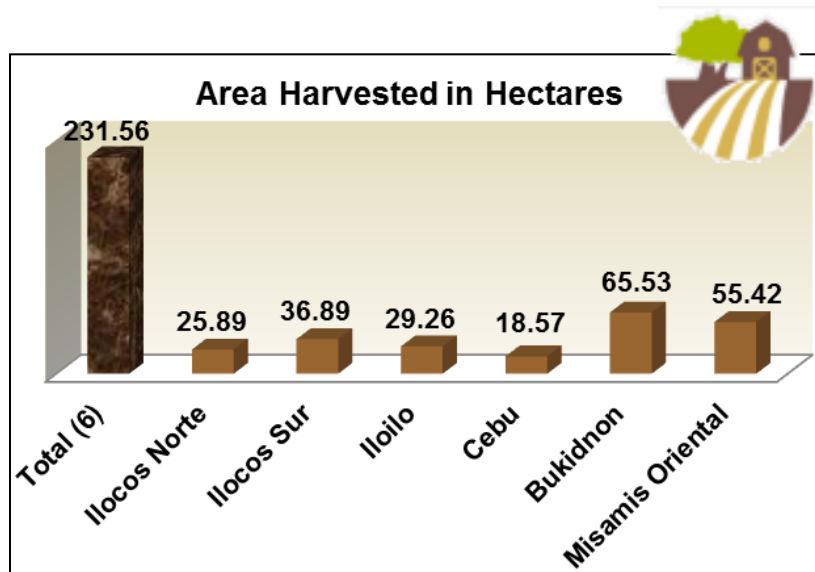
SURVEY RESULTS



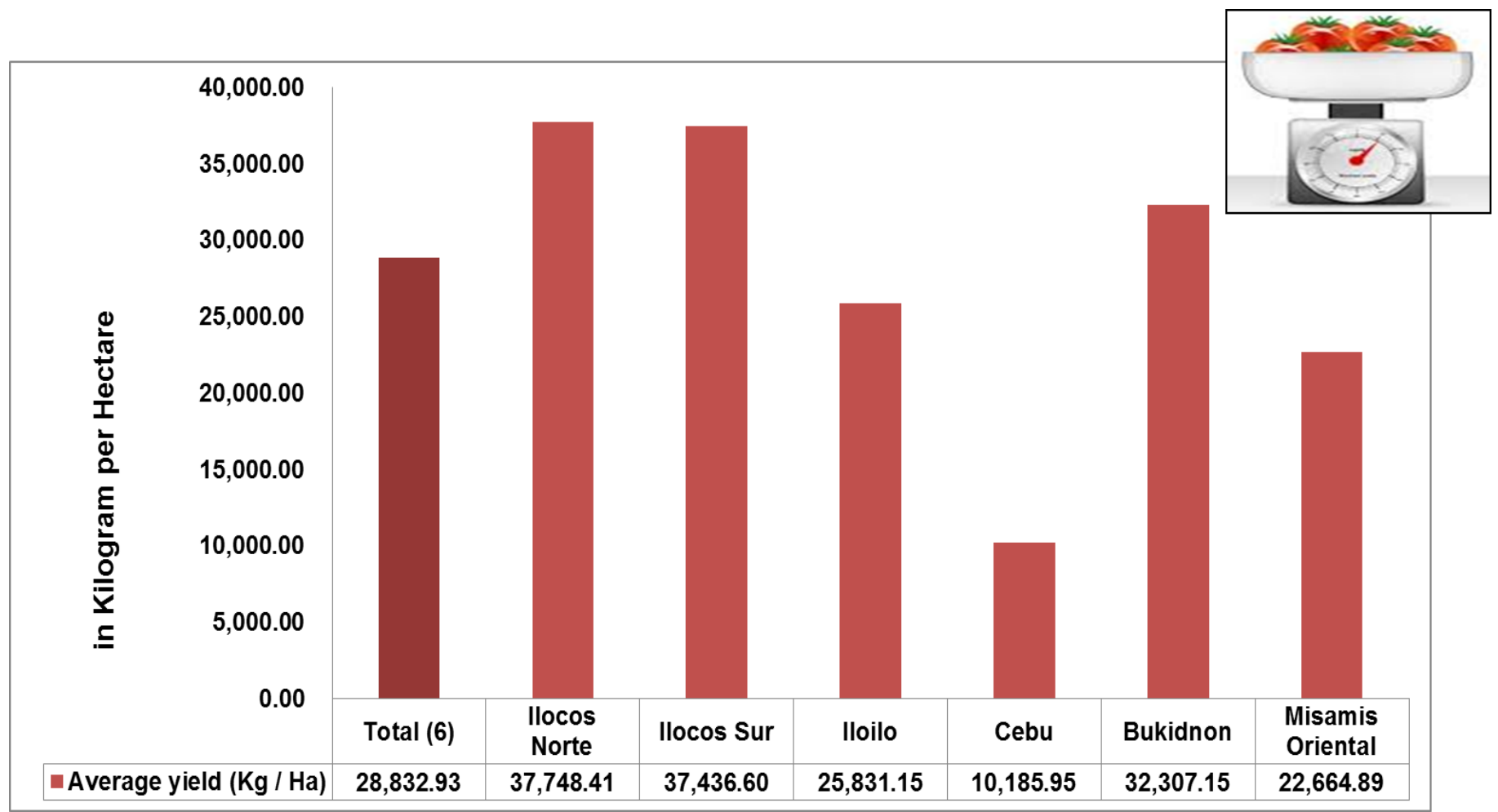
- **Inter-provincial Comparisons**
- **Average Production Costs and Returns by Province**
- **Input Usage**
- **Farmer Characteristics**
- **Farm Characteristics**
- **Farm Practices**
- **Other Information**



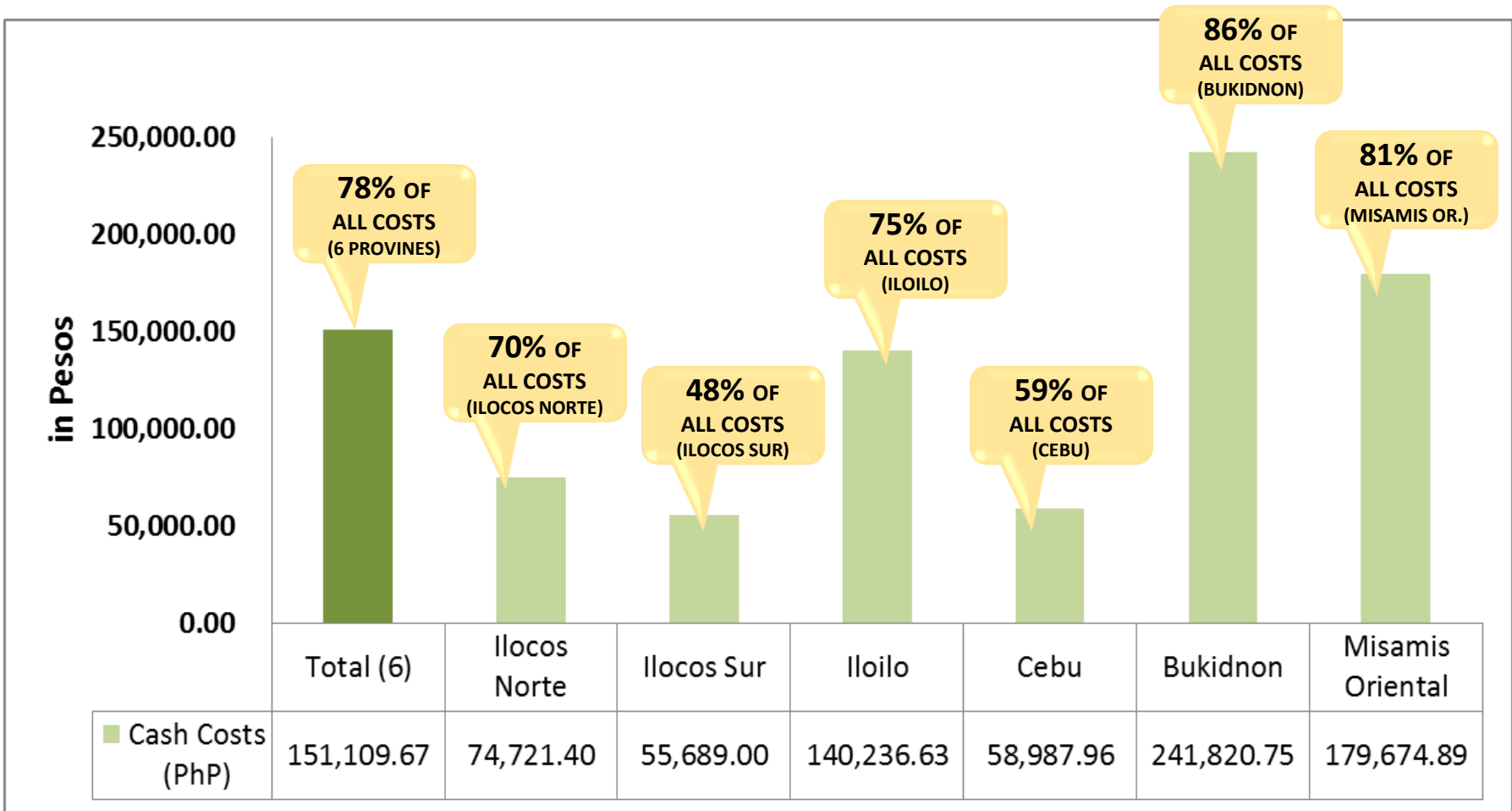
COMPARISON OF THE FACTORS OF PRODUCTION



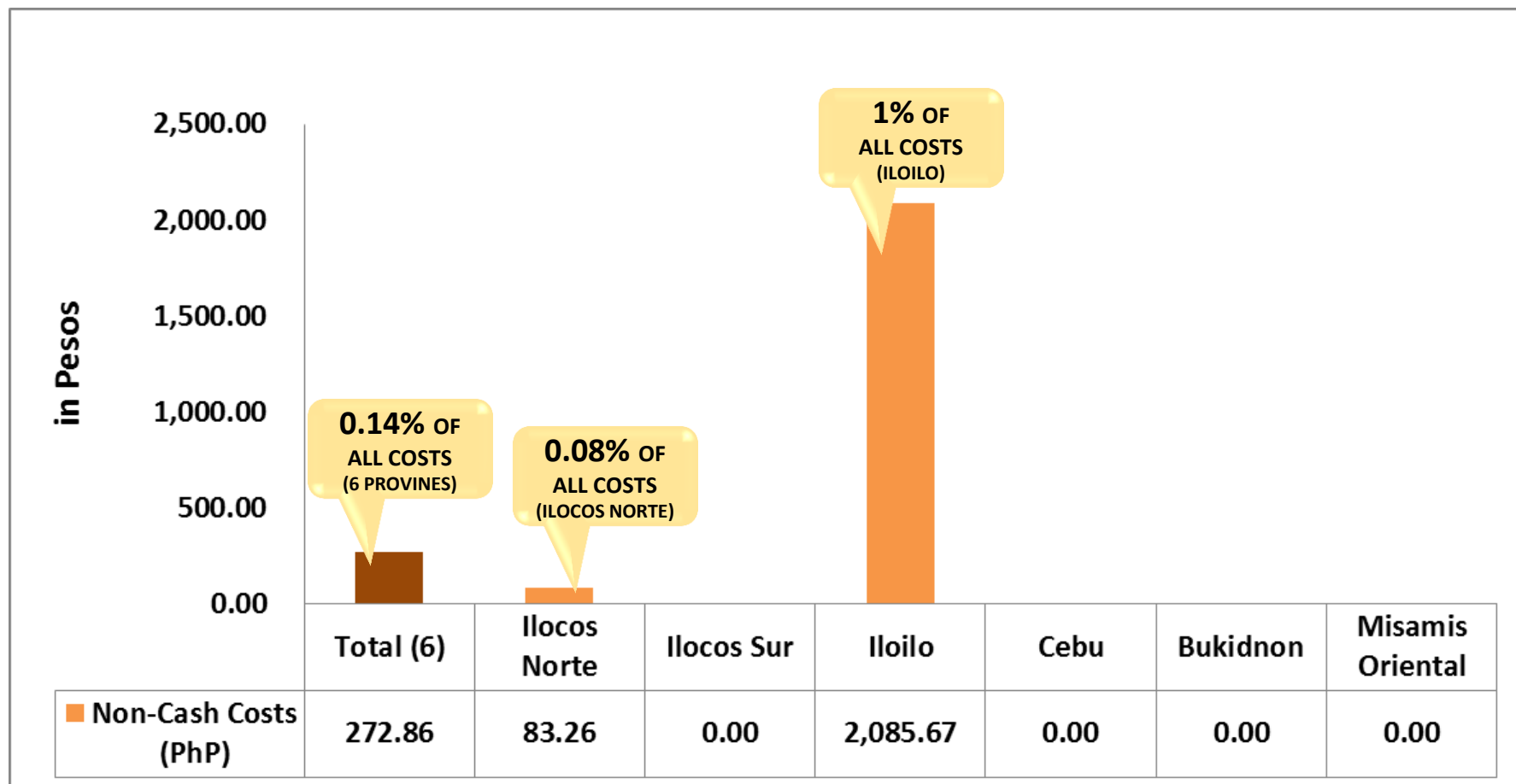
COMPARISON OF YIELD



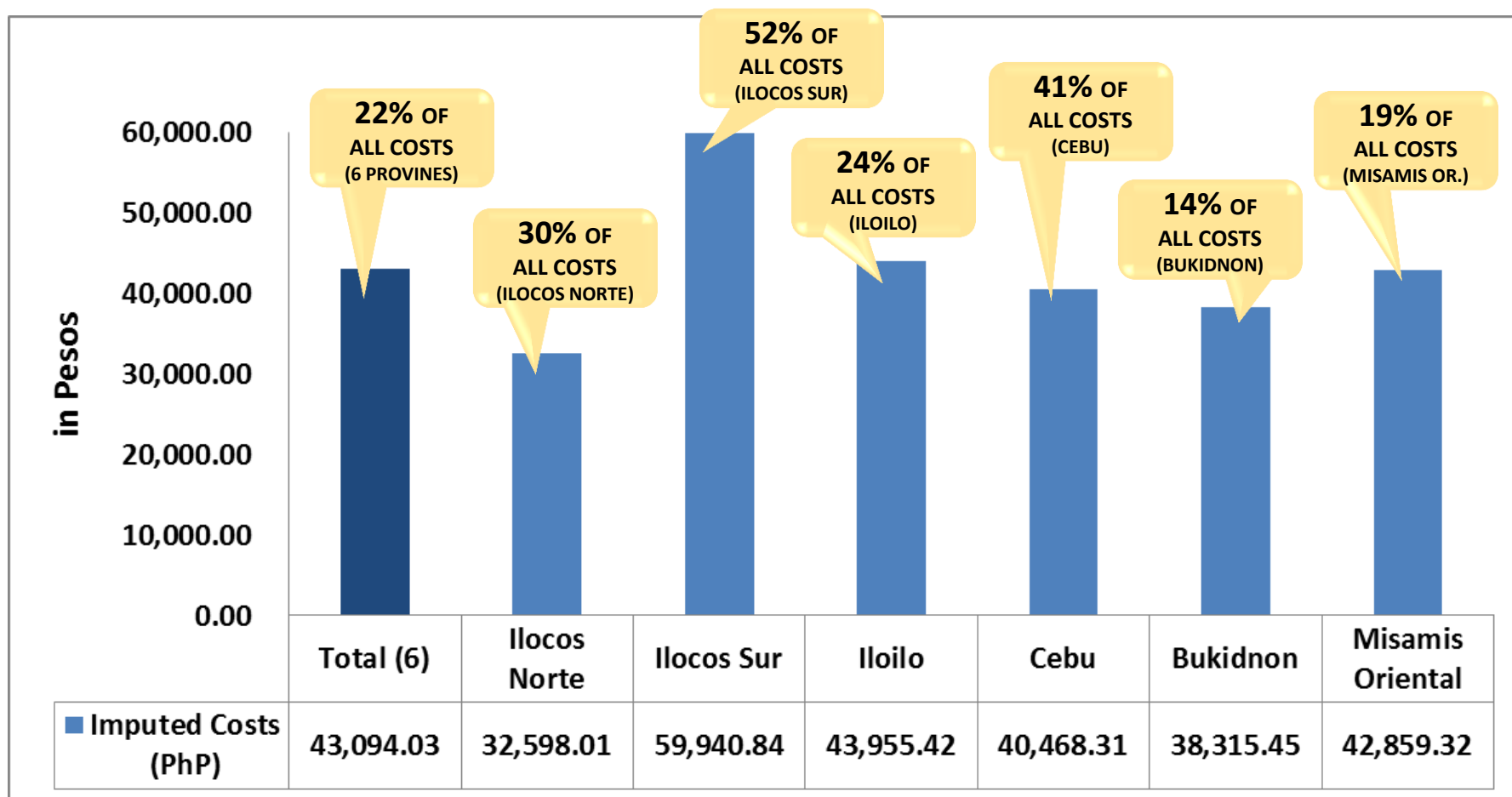
COMPARISON OF CASH COSTS



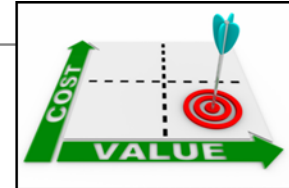
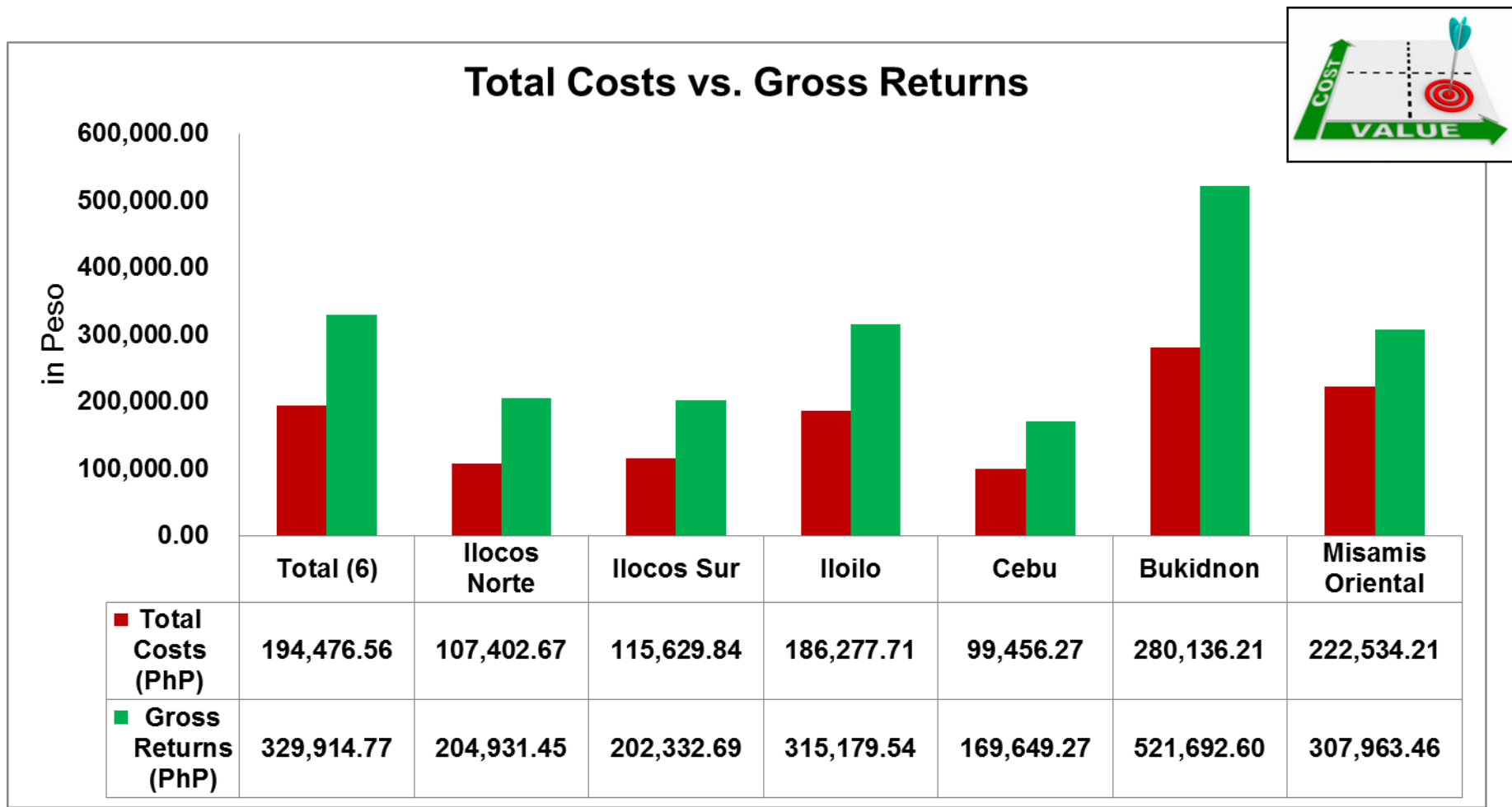
COMPARISON OF NON-CASH COSTS



COMPARISON OF IMPUTED COSTS

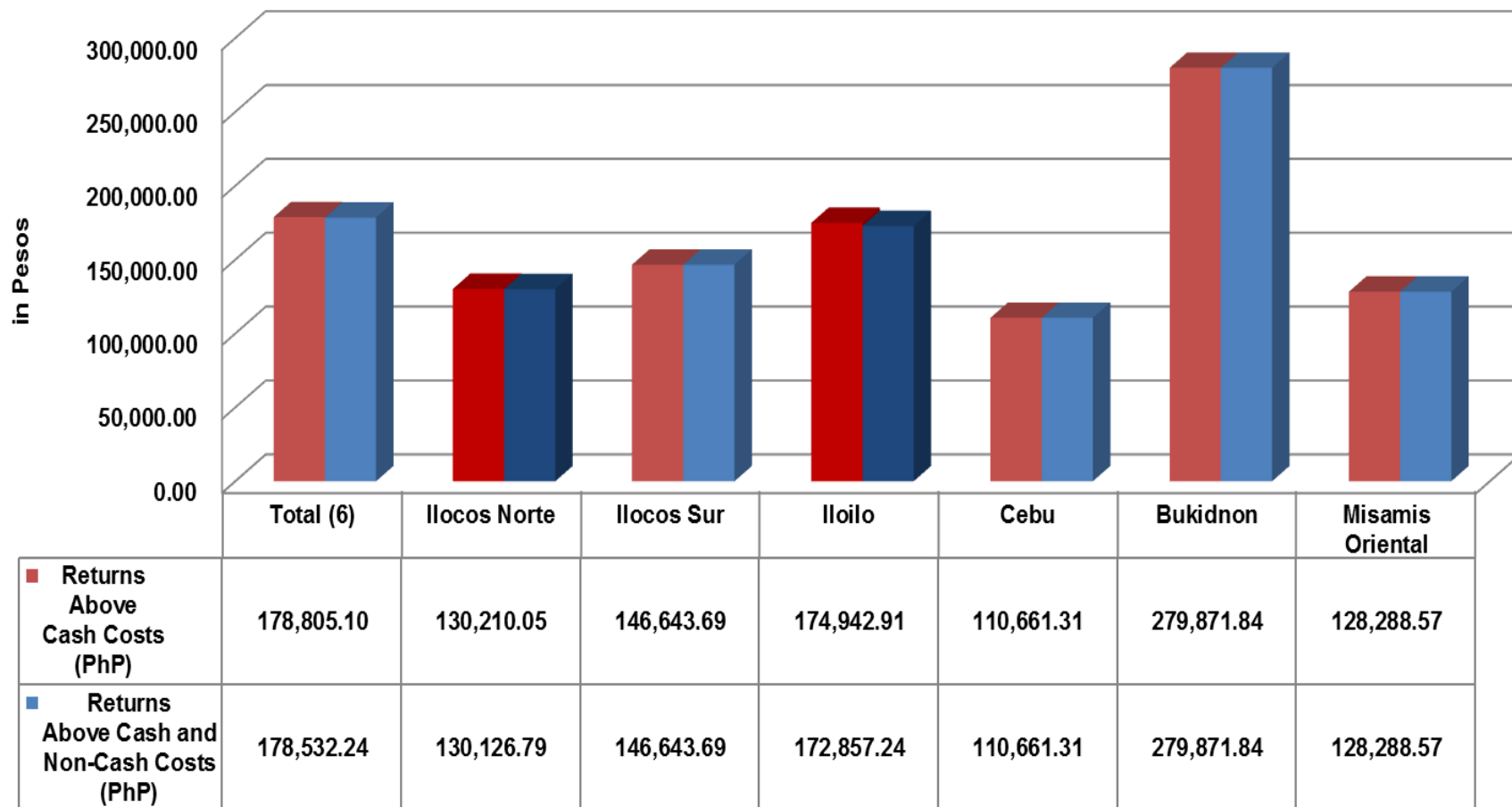


COMPARISON OF AVERAGE PRODUCTION COSTS AND RETURNS



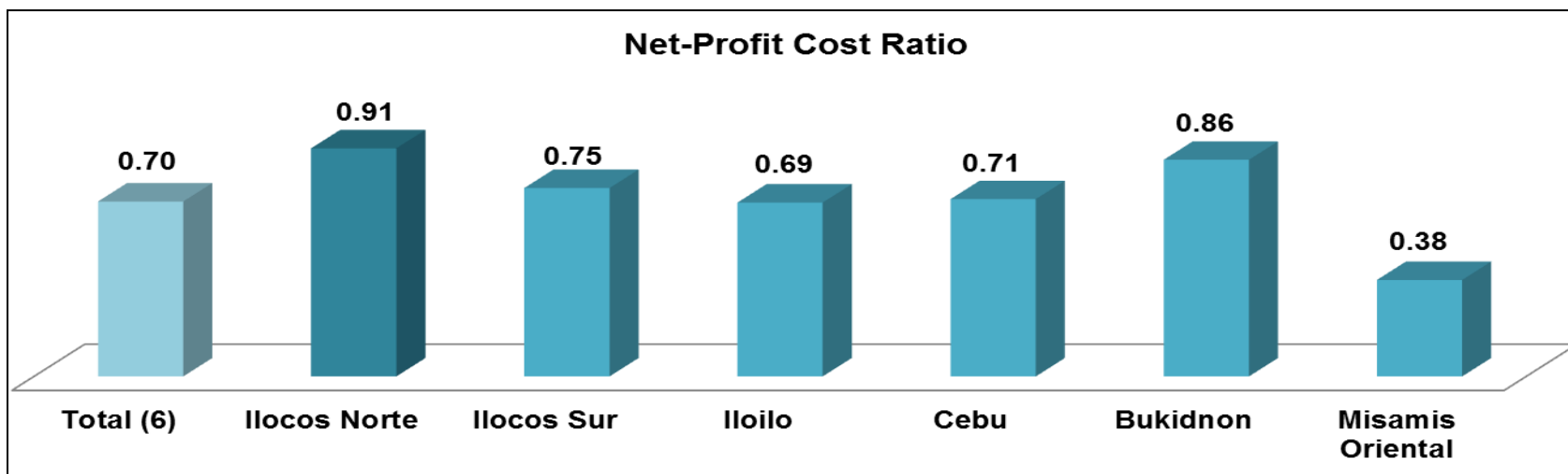
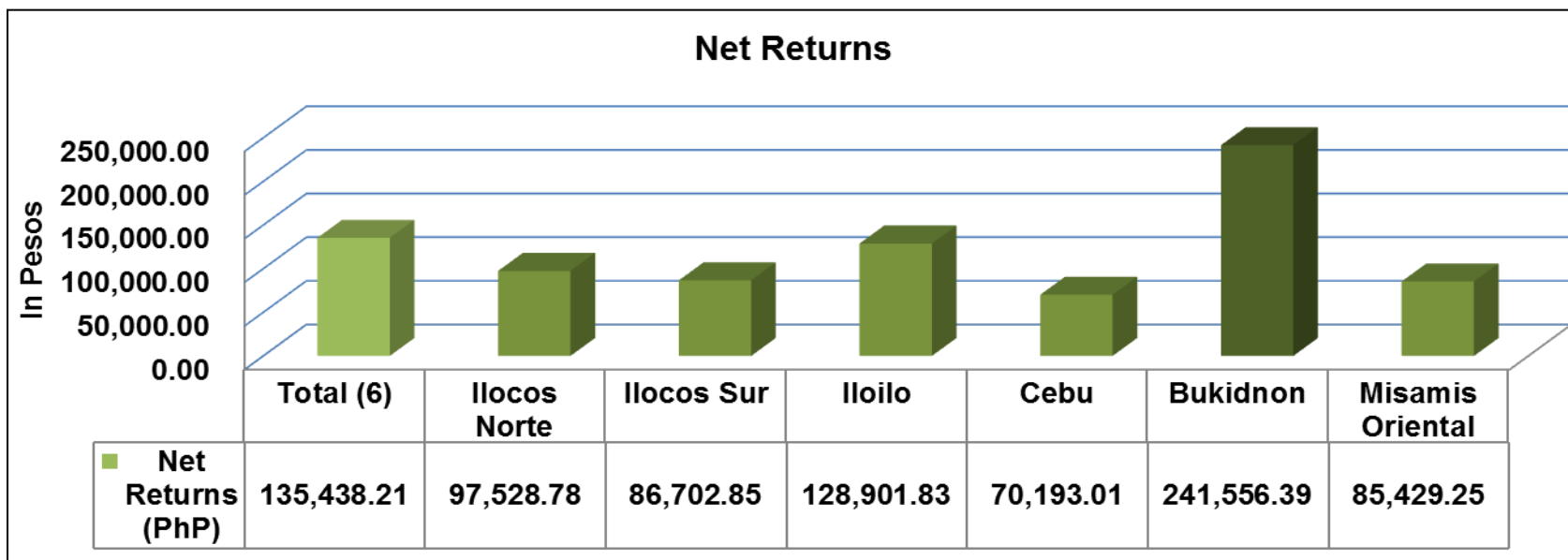


COMPARISON OF INDICATORS OF PROFITABILITY





COMPARISON OF INDICATORS OF PROFITABILITY

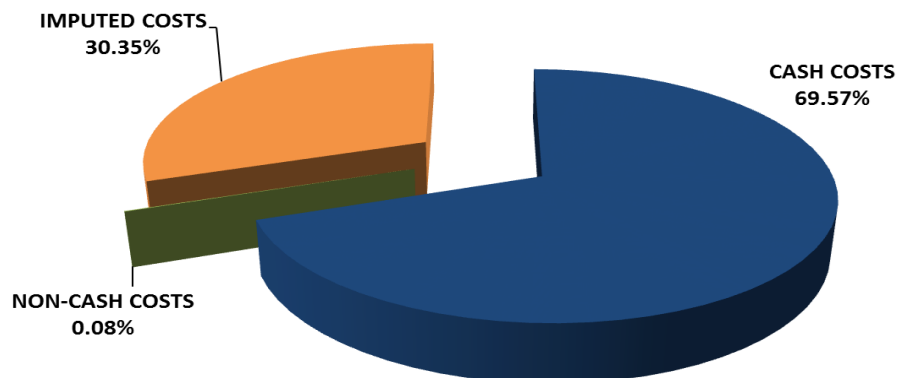


AVERAGE PRODUCTION COSTS AND RETURNS: ILOCOS NORTE

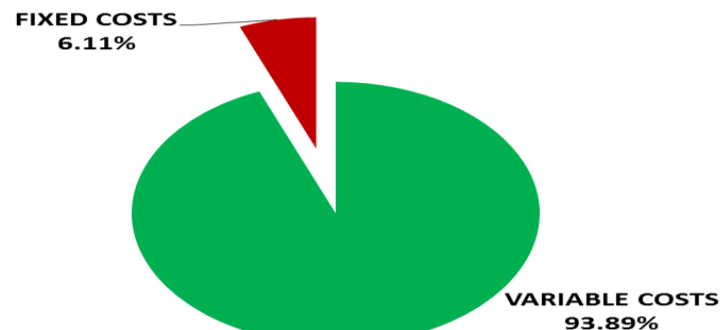
TOTAL COSTS = PhP 107,402.67

Paid labor (hired per day and by contract)	24,145.59
Unpaid labor (operator, family and exchange)	19,622.05
Landowner's share	13,119.81
Fertilizers	9,695.17
Food expense for hired and exchange labor	7,108.79
Planting materials (seeds)	6,473.82
Fuel and Oil	6,106.66
Rentals (machine, animal, tools & equipment)	3,304.92
Depreciation	3,108.18
Sack/Crate/Box/Kaing	3,089.92
Pesticides	2,905.07
Repairs	2,449.86
Interest on operating capital	2,429.81
Transport costs	1,249.29
Water and electricity	984.23
Interest payment on crop loan	560.77
Financier's share	463.42
Rental value of owned animal	463.42
Mulching materials	118.06
Others	3.86

ACCORDING TO CASH FLOWS

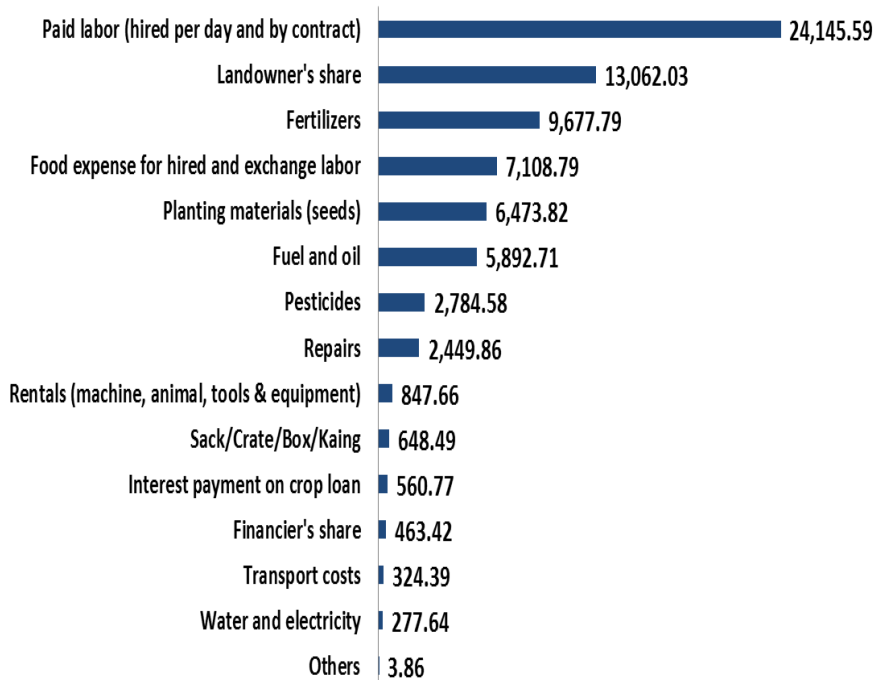


ACCORDING TO PRODUCTION LEVEL

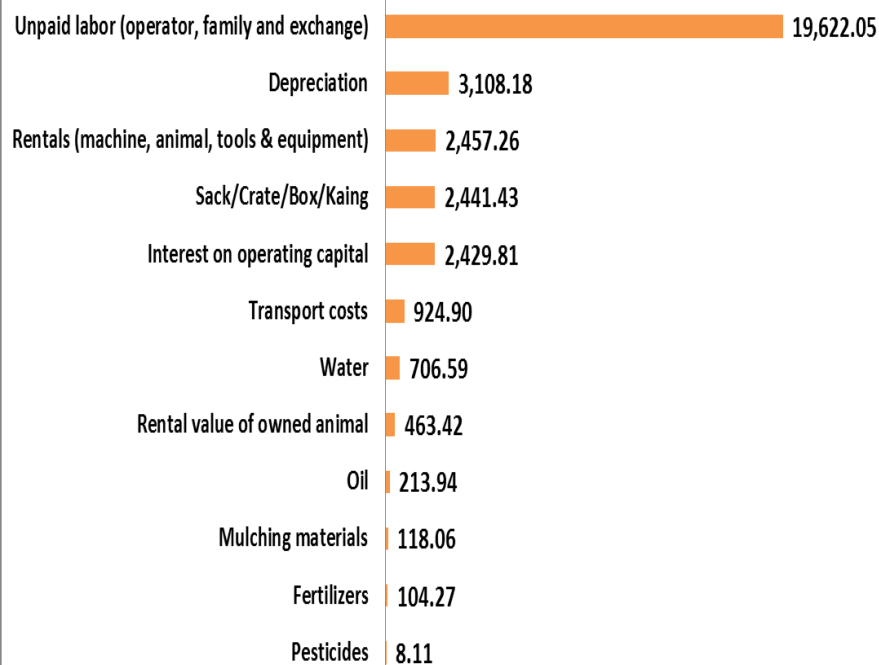


AVERAGE PRODUCTION COSTS AND RETURNS: ILOCOS NORTE

CASH COSTS = PhP 74,721.40



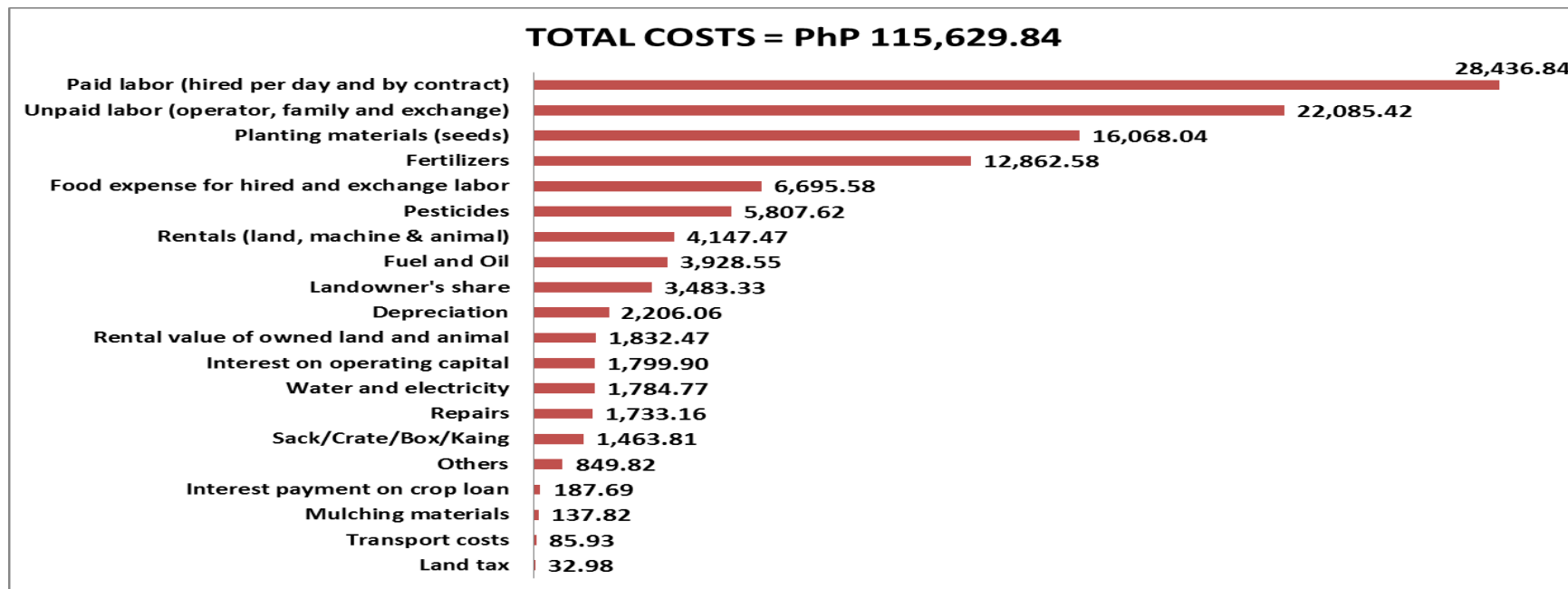
IMPUTED COSTS = PhP 32,598.01



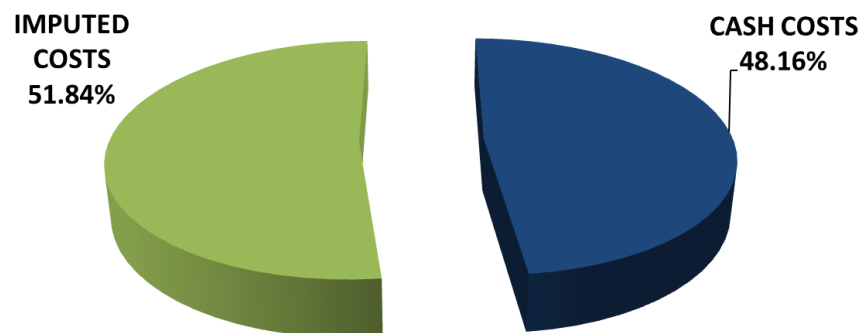
NON-CASH COSTS = PhP 83.26



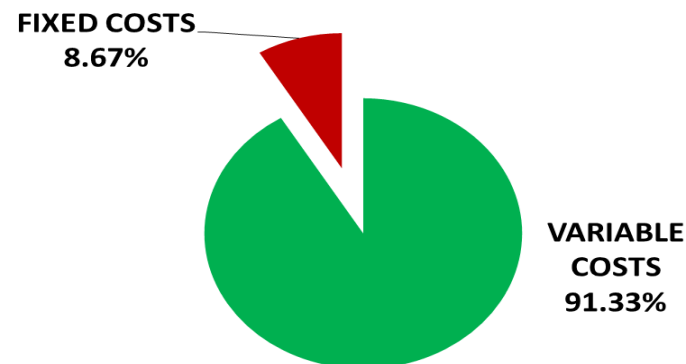
AVERAGE PRODUCTION COSTS AND RETURNS: ILOCOS SUR



ACCORDING TO CASH FLOWS

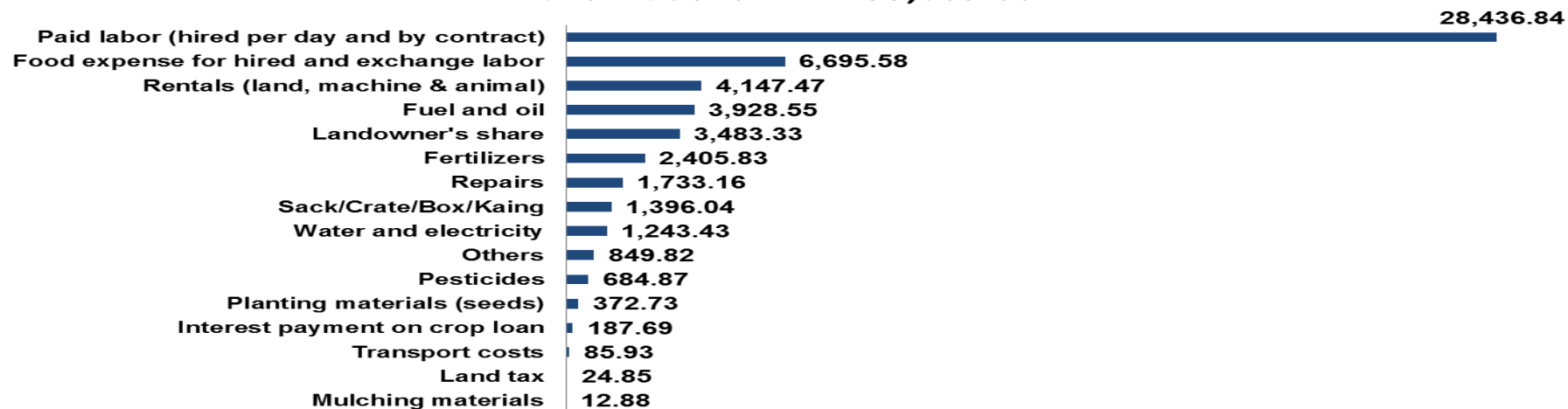


ACCORDING TO PRODUCTION LEVEL

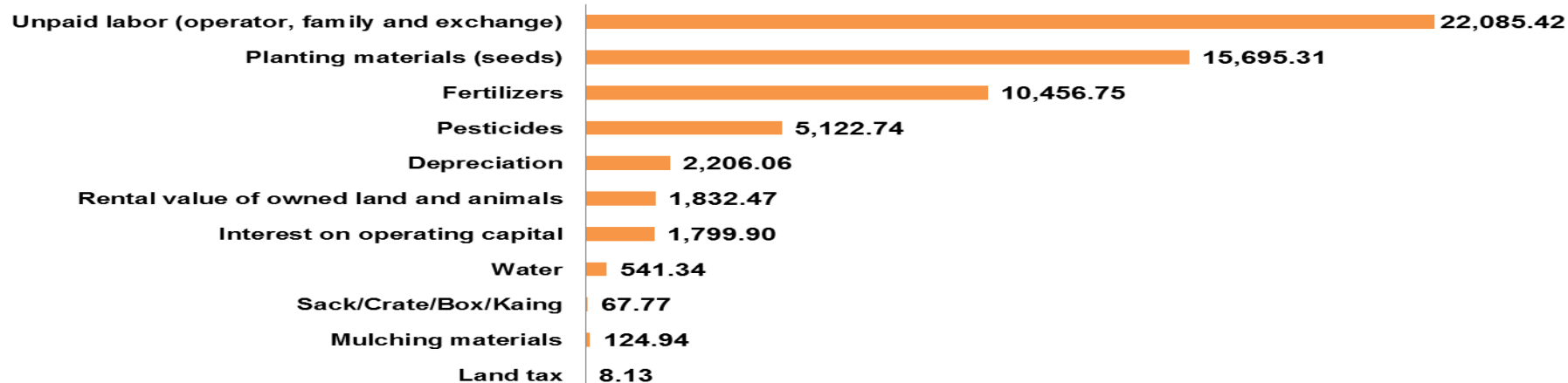


AVERAGE PRODUCTION COSTS AND RETURNS: ILOCOS SUR

CASH COSTS = PhP 55,689.00

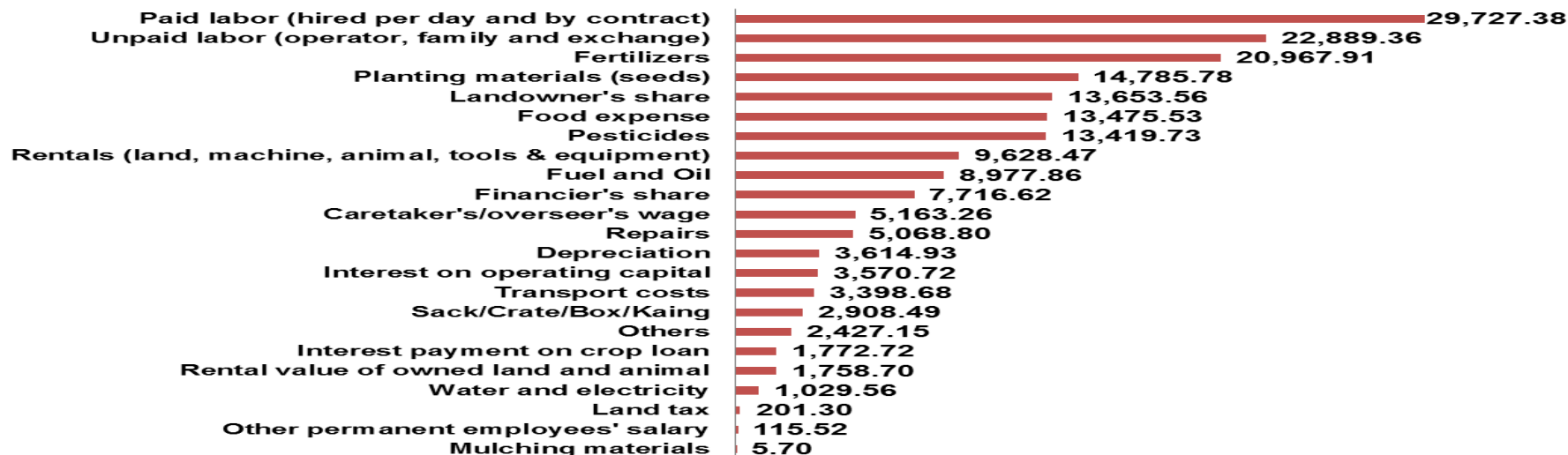


IMPUTED COSTS = PhP 59,940.84

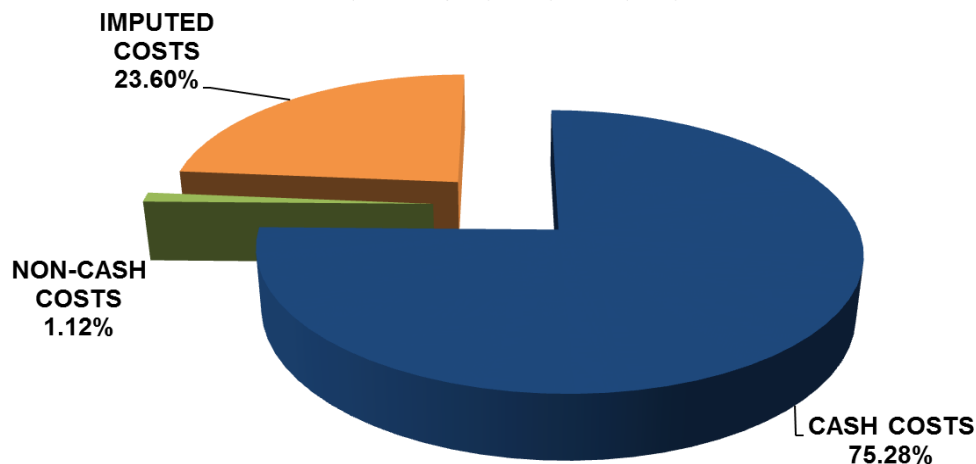


AVERAGE PRODUCTION COSTS AND RETURNS: ILOILO

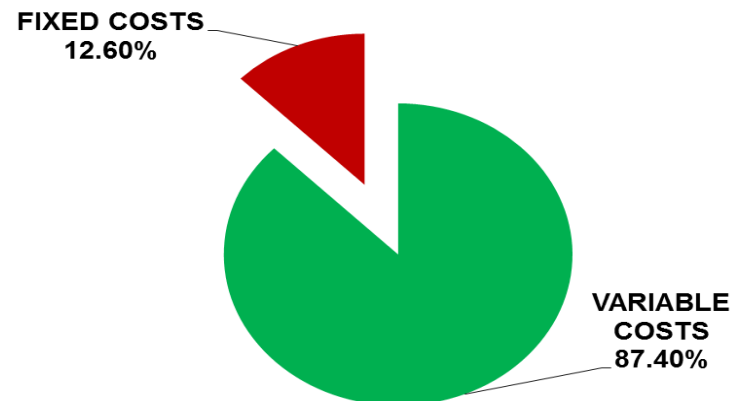
TOTAL COSTS = PhP 186,277.71



ACCORDING TO CASH FLOWS

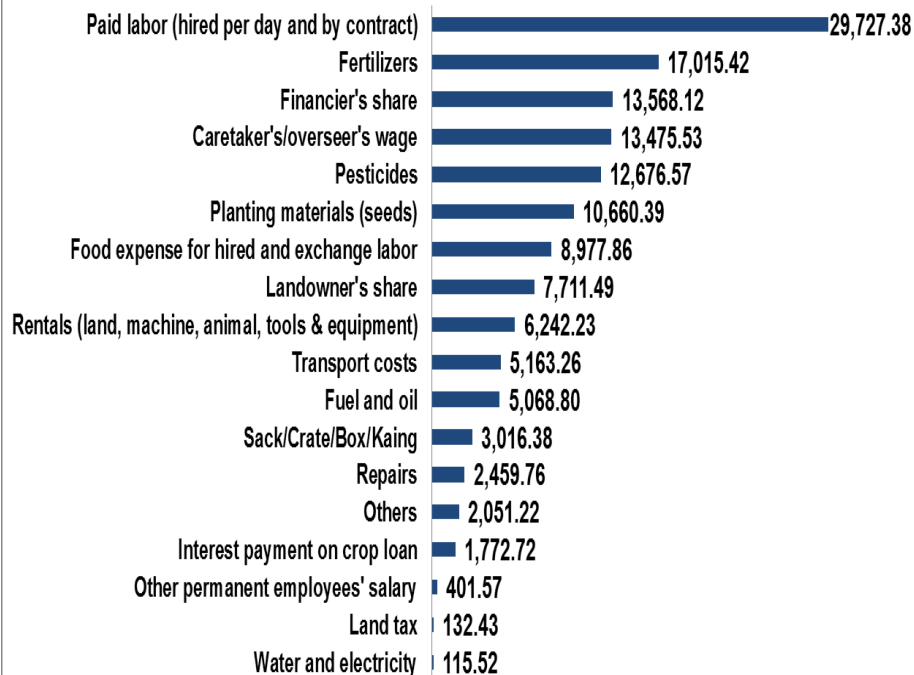


ACCORDING TO PRODUCTION LEVEL

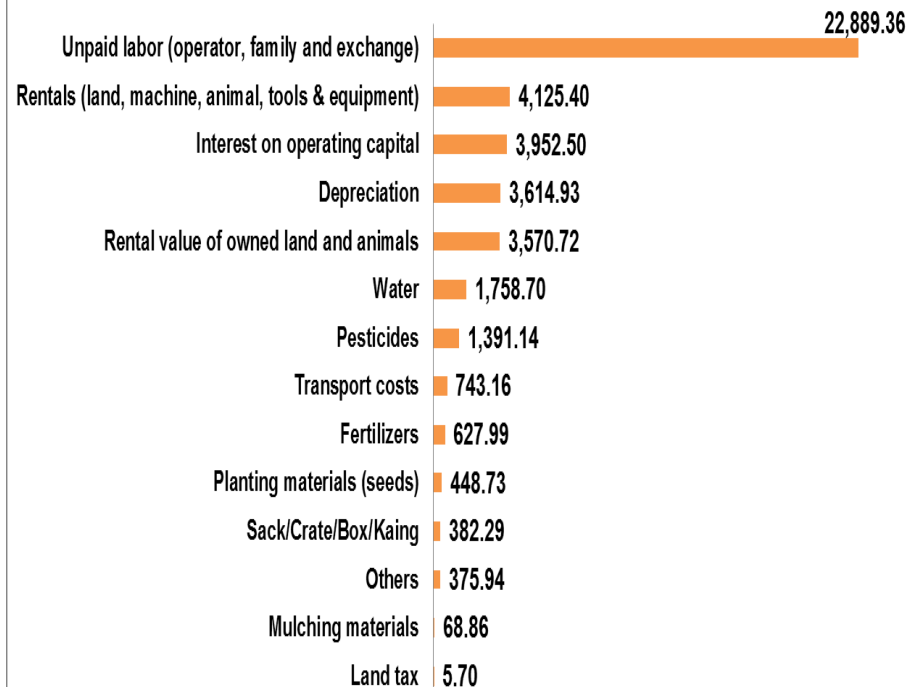


AVERAGE PRODUCTION COSTS AND RETURNS: ILOILO

CASH COSTS = PhP 140,236.63



IMPUTED COSTS = PhP 43,955.42



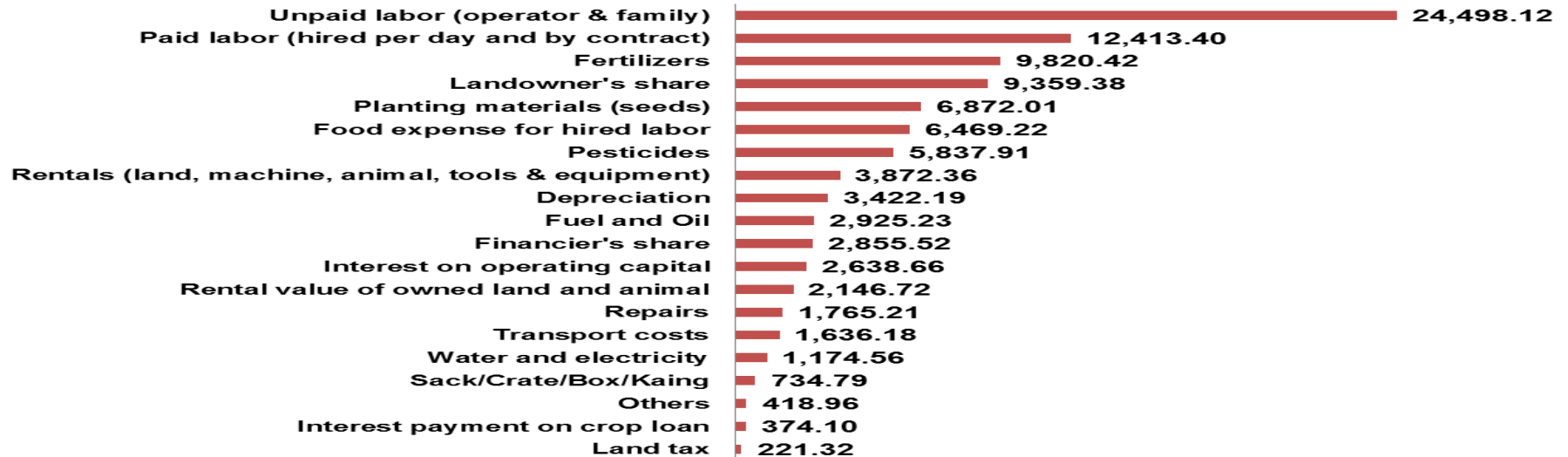
NON-CASH COSTS = PhP 2,085.67



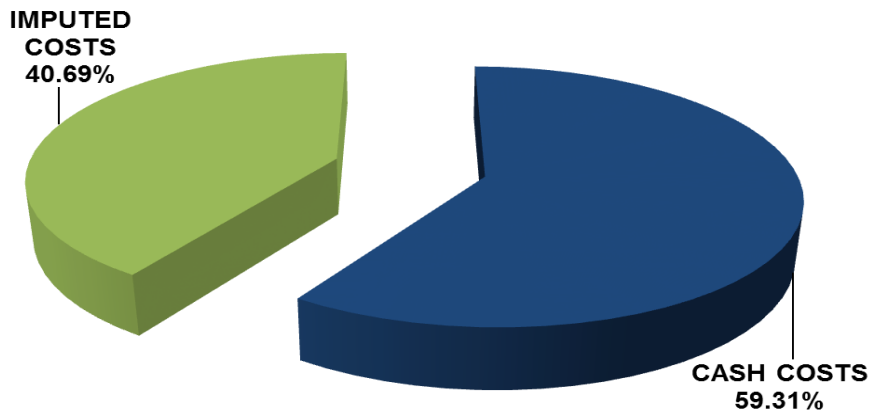


AVERAGE PRODUCTION COSTS AND RETURNS: CEBU

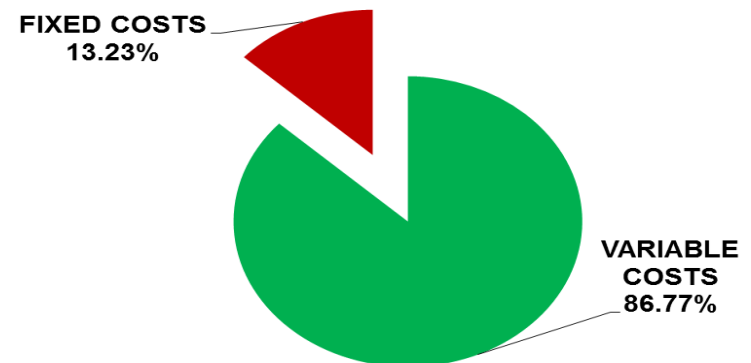
TOTAL COSTS = PhP 99,456.27



ACCORDING TO CASH FLOWS

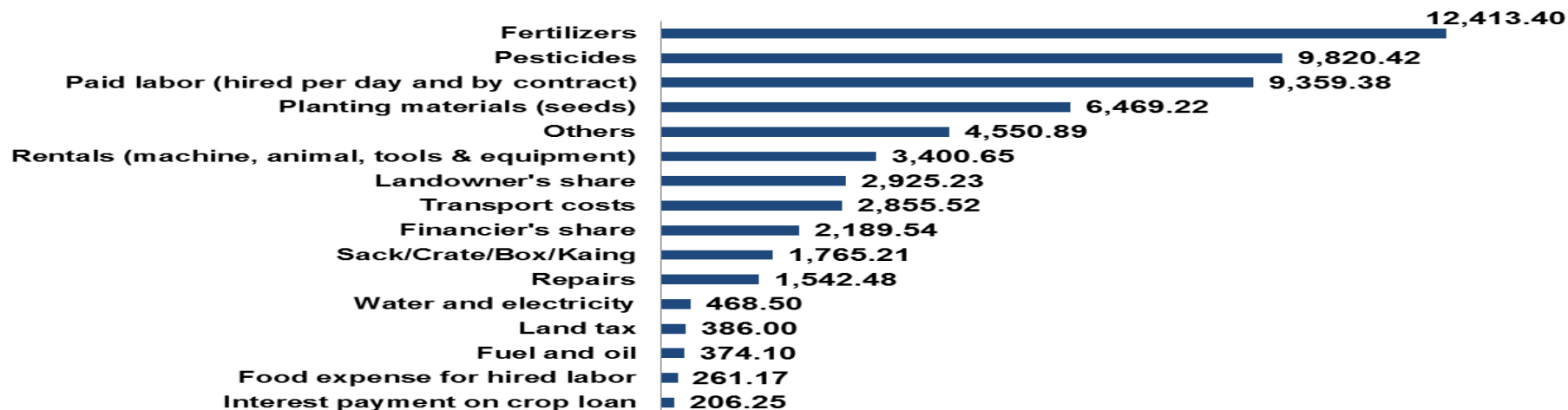


ACCORDING TO PRODUCTION LEVEL

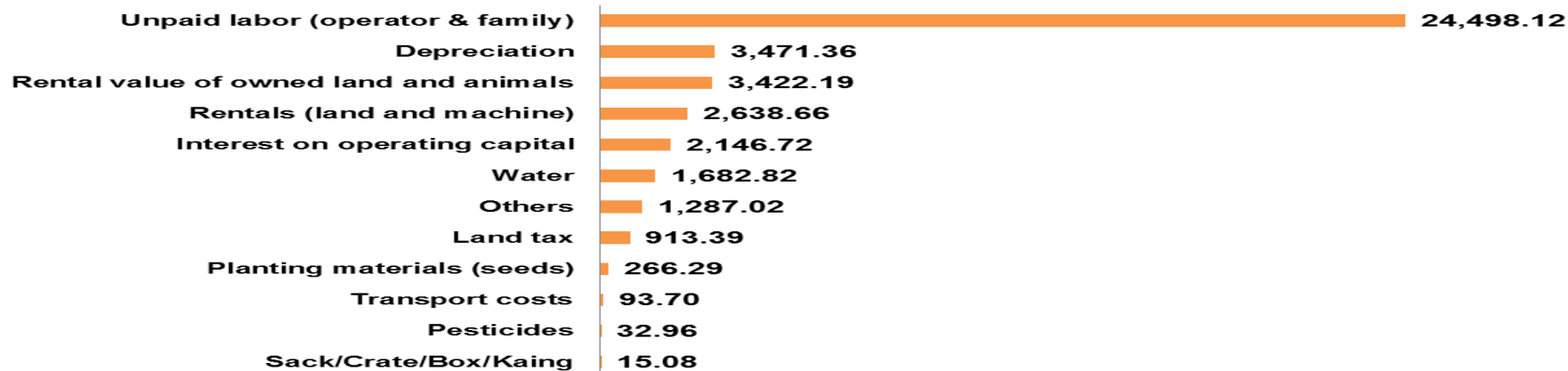


AVERAGE PRODUCTION COSTS AND RETURNS: CEBU

CASH COSTS = PhP 58,987.96

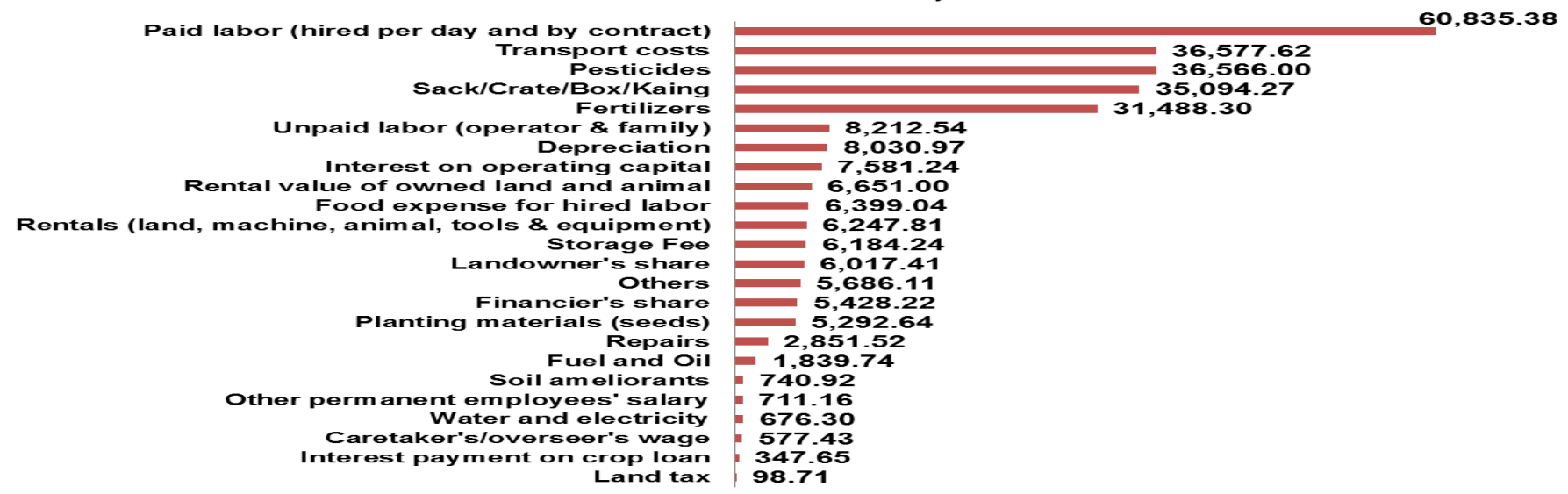


IMPUTED COSTS = PhP 40,468.31

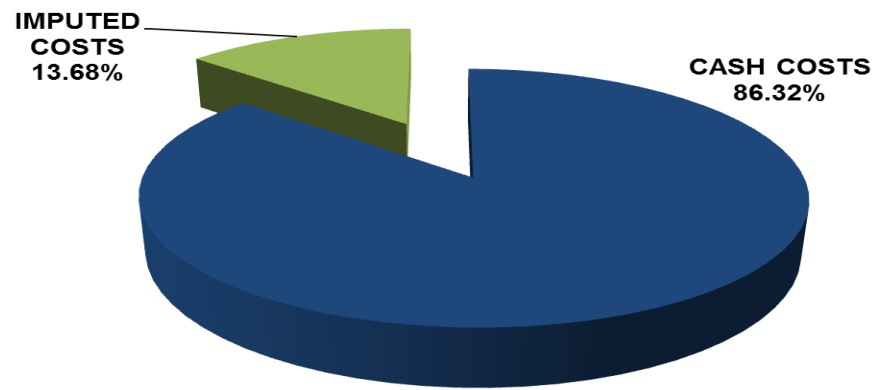


AVERAGE PRODUCTION COSTS AND RETURNS: BUKIDNON

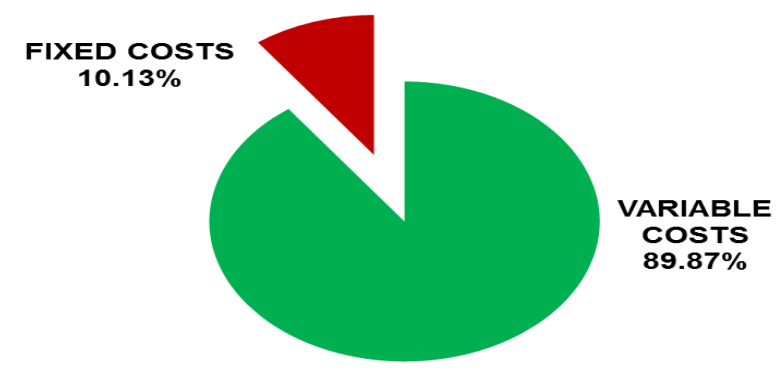
TOTAL COSTS = PhP280,136.21



ACCORDING TO CASH FLOWS

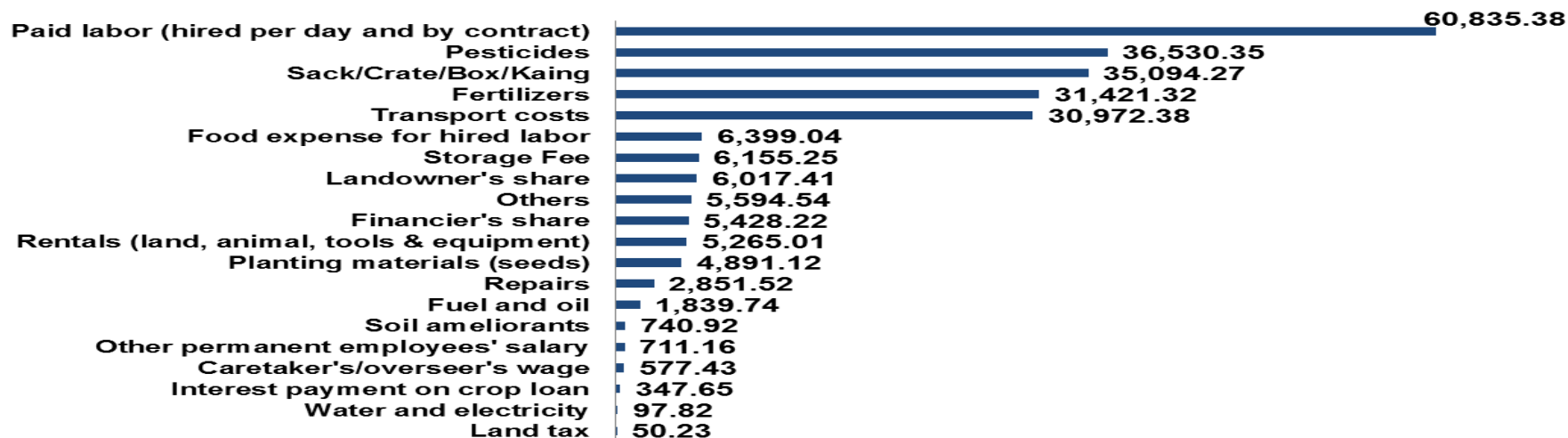


ACCORDING TO PRODUCTION LEVEL

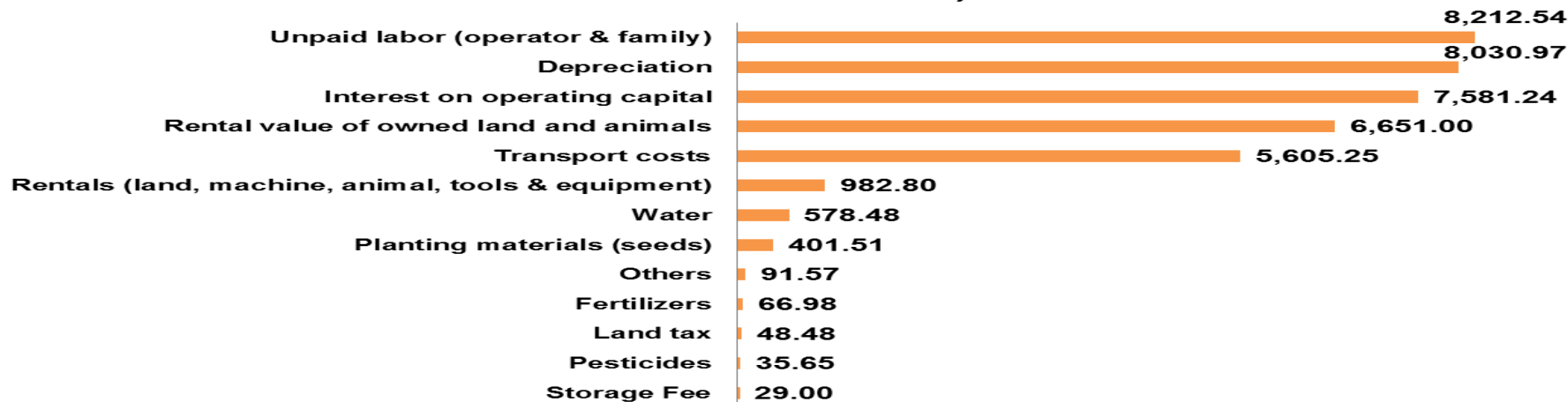


AVERAGE PRODUCTION COSTS AND RETURNS: BUKIDNON

CASH COSTS = PhP241,820.75



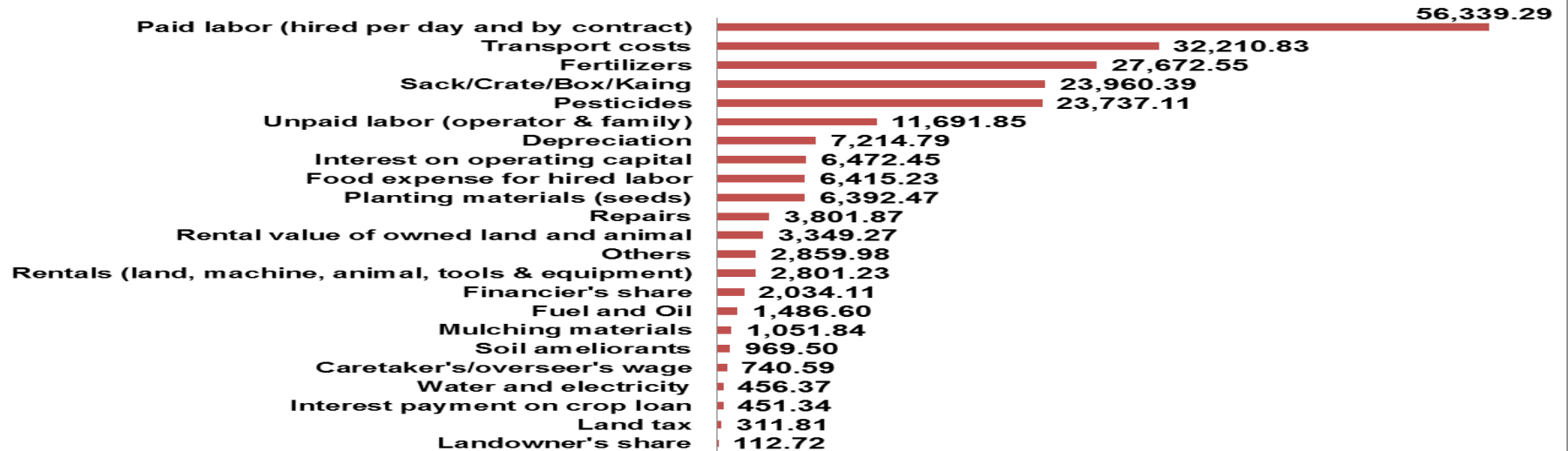
IMPUTED COSTS = PhP38,315.45



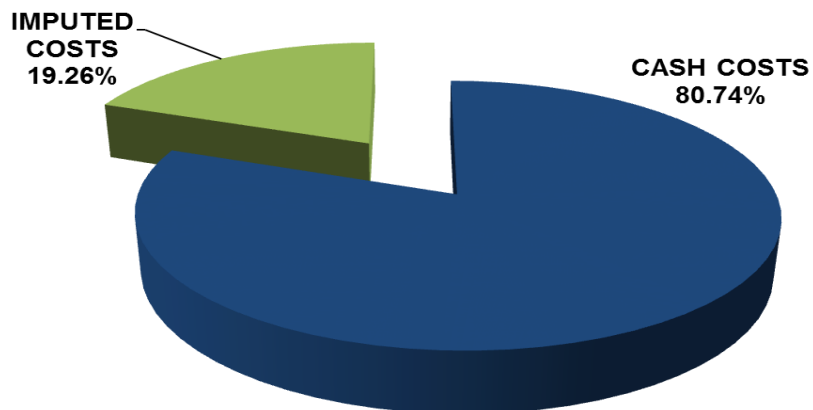


AVERAGE PRODUCTION COSTS AND RETURNS: MISAMIS ORIENTAL

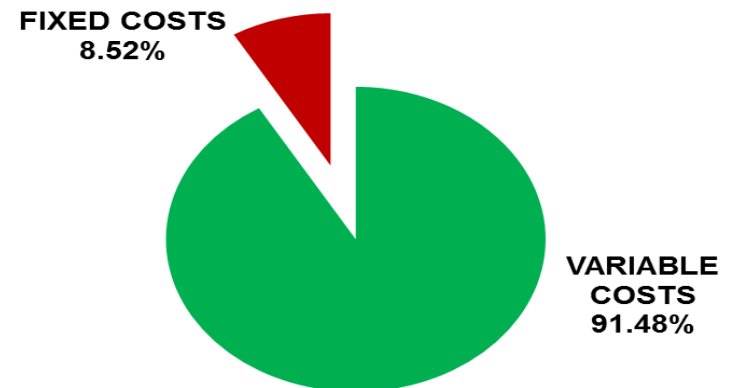
TOTAL COSTS = PhP222,534.21



ACCORDING TO CASH FLOWS

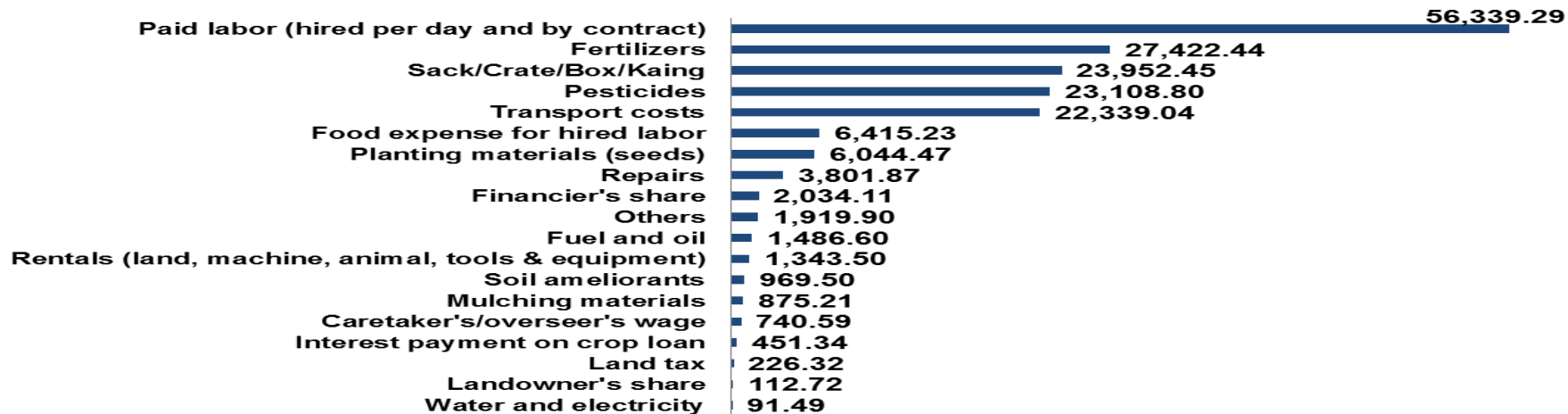


ACCORDING TO PRODUCTION LEVEL

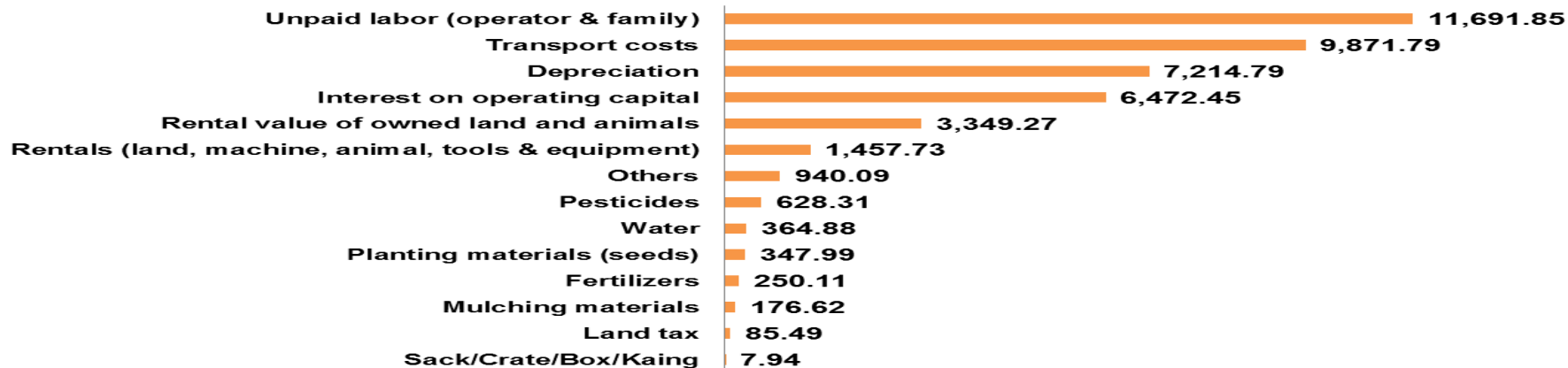


AVERAGE PRODUCTION COSTS AND RETURNS: MISAMIS ORIENTAL

CASH COSTS = PhP179,674.89

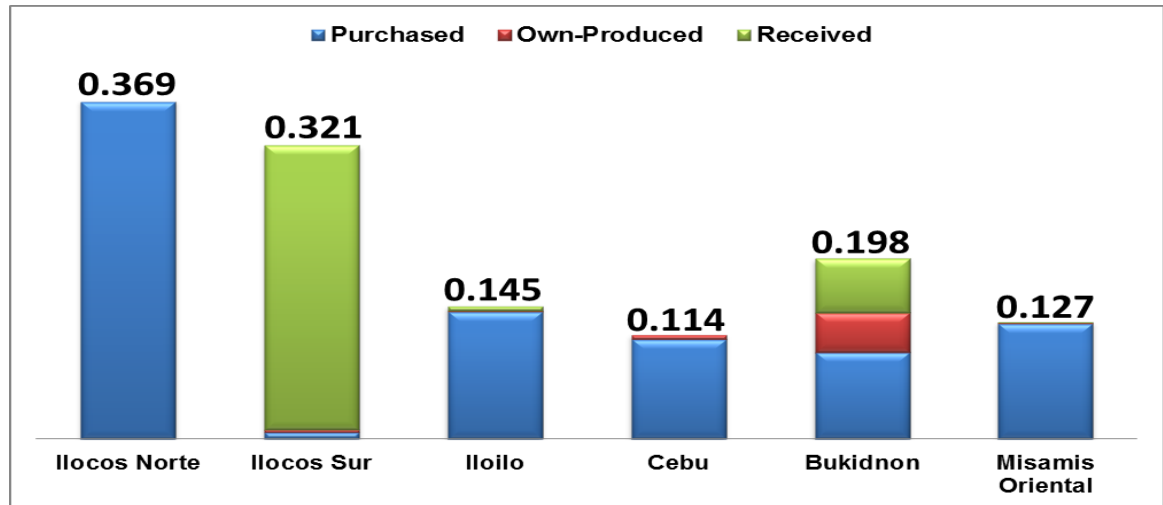
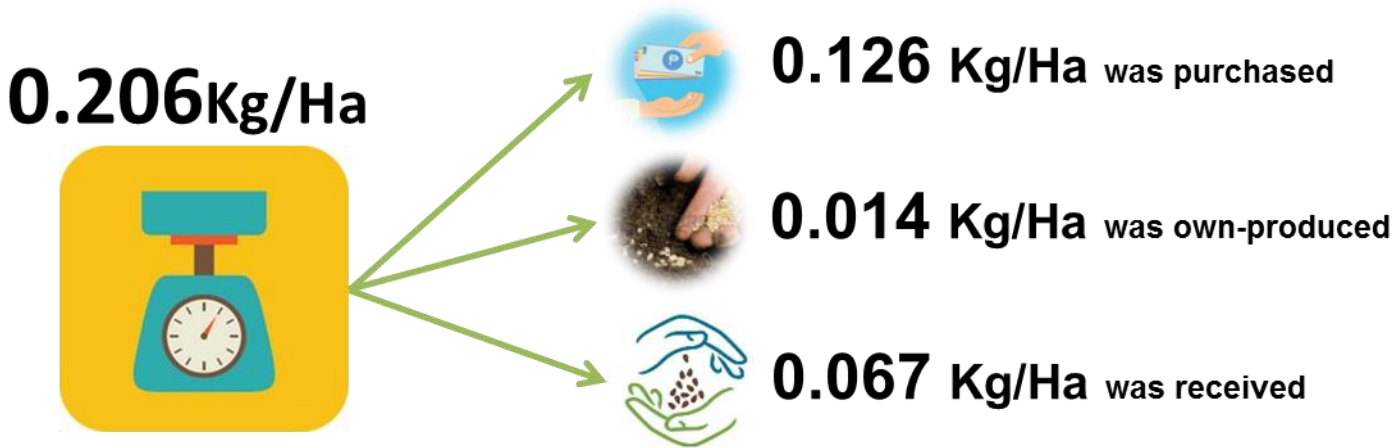


IMPUTED COSTS = PhP42,859.32



INPUT USAGE

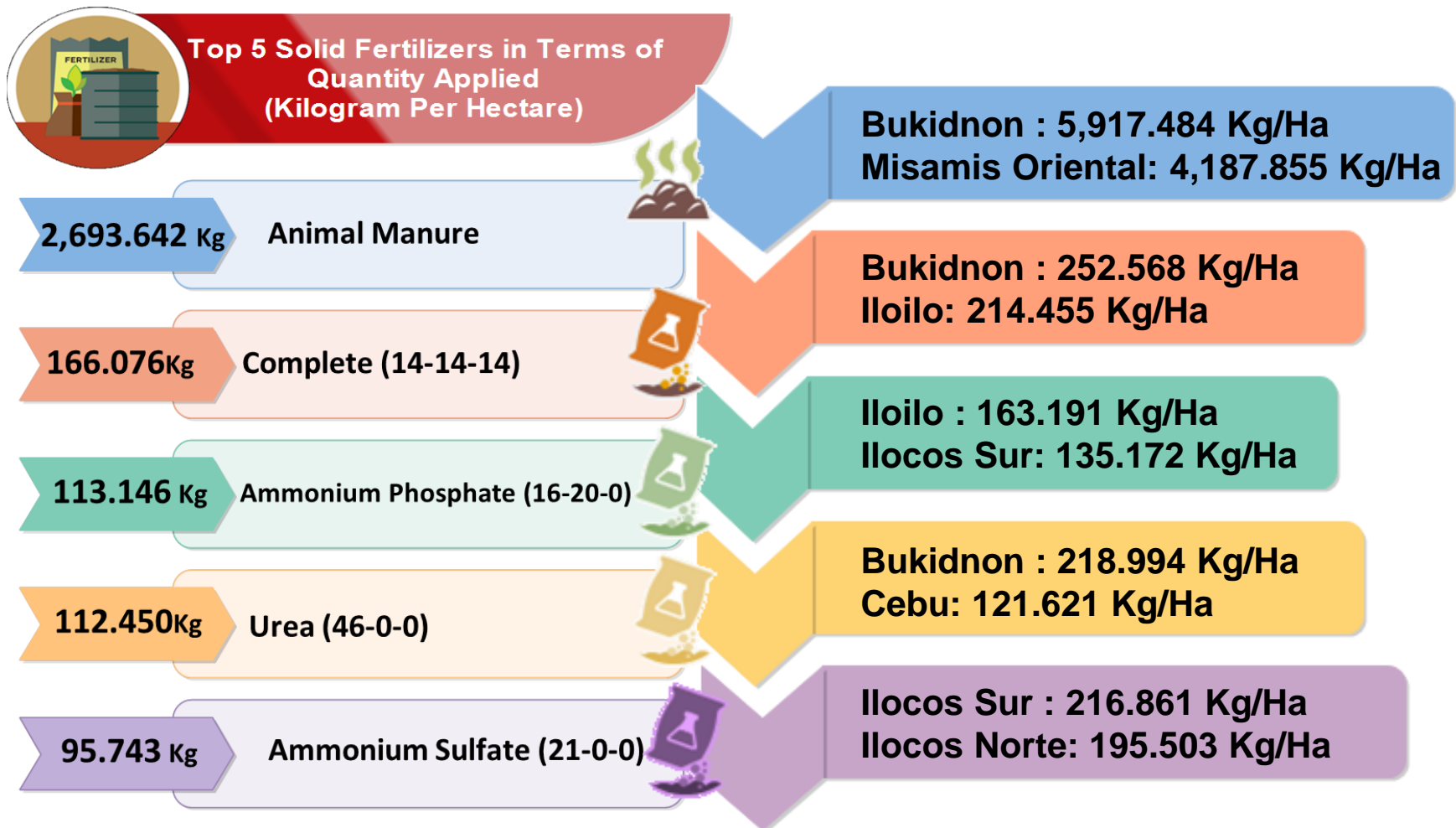
Average quantity of tomato seeds used per hectare by mode of acquisition





INPUT USAGE

Average quantity of solid fertilizers applied per hectare by classification/grade



INPUT USAGE

Average quantity of liquid fertilizers applied in Liter per hectare by name

Province	Foliars	Grower	Others ^{1/}
Total	0.976	0.030	0.624
Ilocos Norte	0.033		
Ilocos Sur	0.054		
Iloilo	0.487		0.084
Cebu	0.054	0.377	
Bukidnon	2.959		2.121
Misamis Oriental	0.253		0.054

1/ include ANA-A, Atomic Grow, Atonik, Biogold, Calcium Boron, Gromix, Plant Care, Rumex and Wokozim



INPUT USAGE

Average quantity of soil ameliorants and mulching materials applied in Kilogram per hectare by type

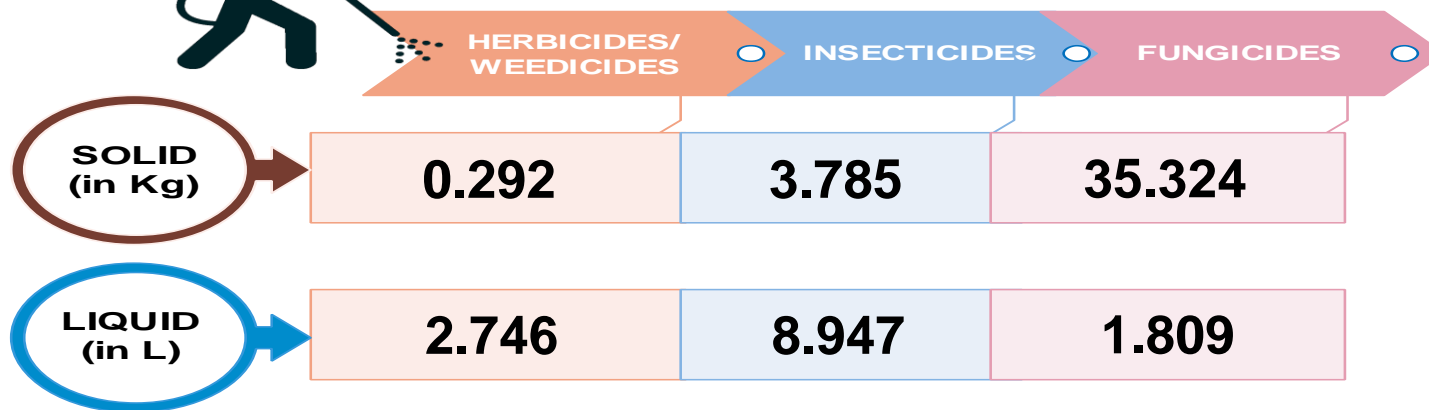
Province	Soil Ameliorants	Mulching Materials	
	Lime	Rice Hay	Others ^{1/}
Total	542.826	30.245	21.593
Ilocos Norte		40.487	
Ilocos Sur		111.819	5.286
Iloilo		53.998	5.639
Cebu			
Bukidnon	998.596		
Misamis Oriental	1,087.431	4.511	83.732

1/ include rice husk, saw dust, net, banana leaves, coconut leaves and sack

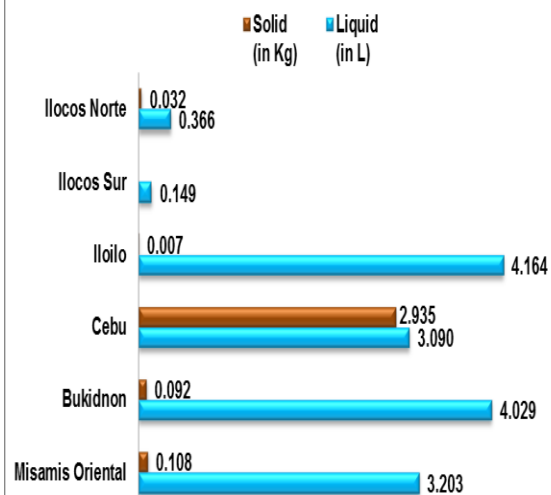
INPUT USAGE



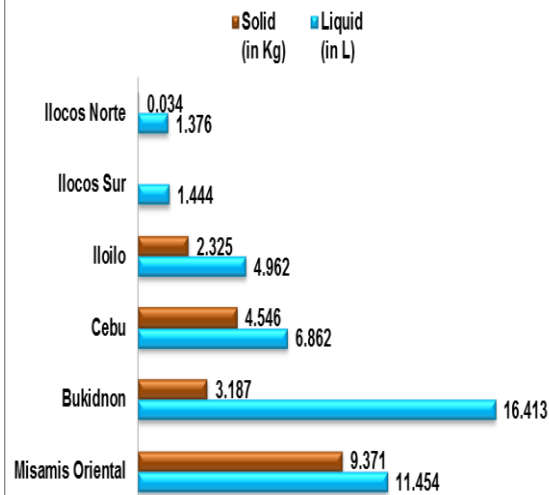
Average quantity of pesticides applied per hectare by type



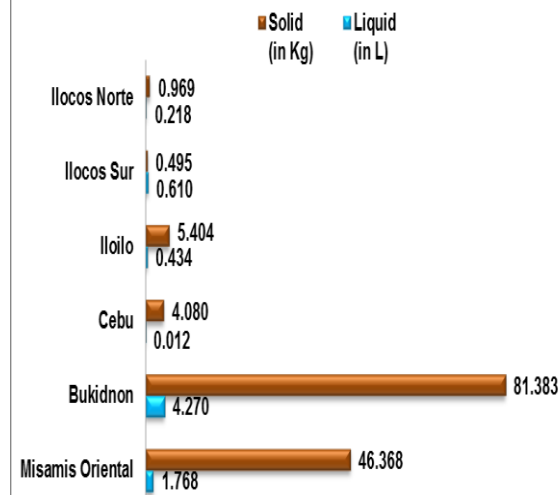
Average quantity of herbicides/weedicides



Average quantity of insecticides



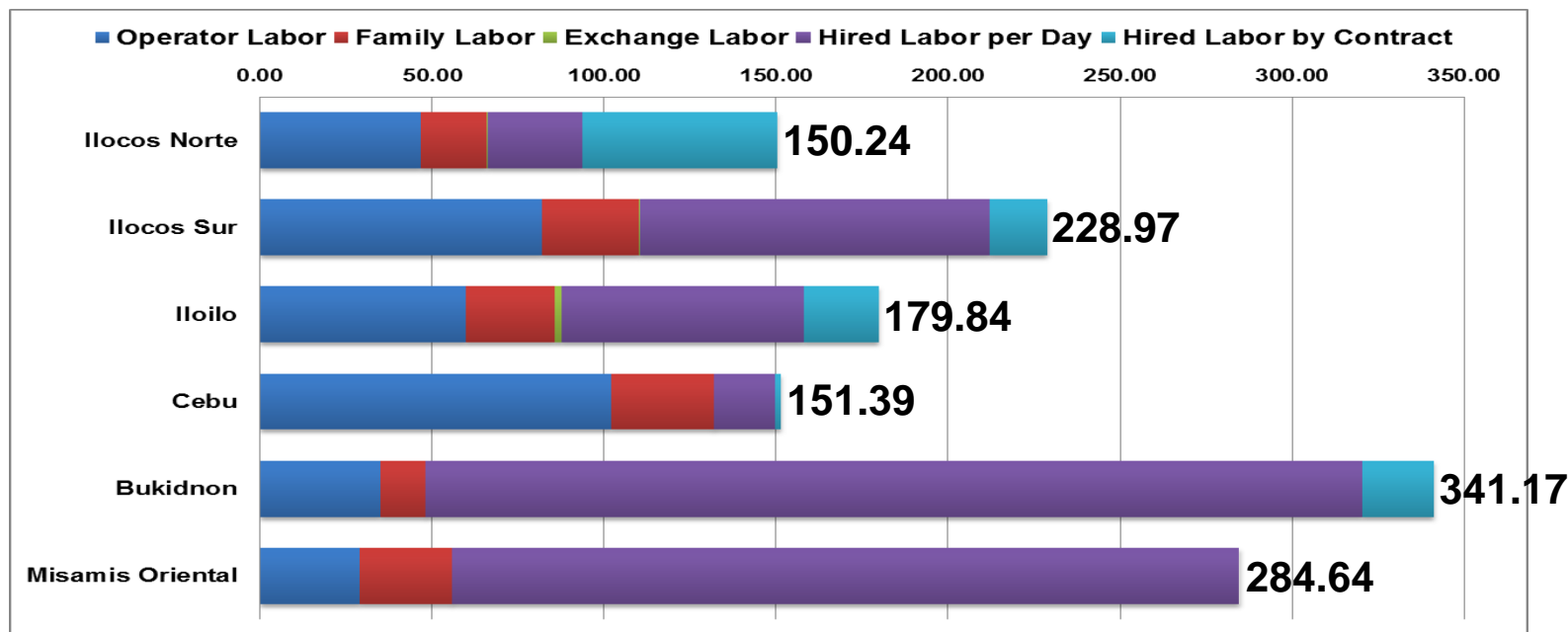
Average quantity of fungicides



INPUT USAGE

Average labor utilization in mandays per hectare of tomato production by source of labor

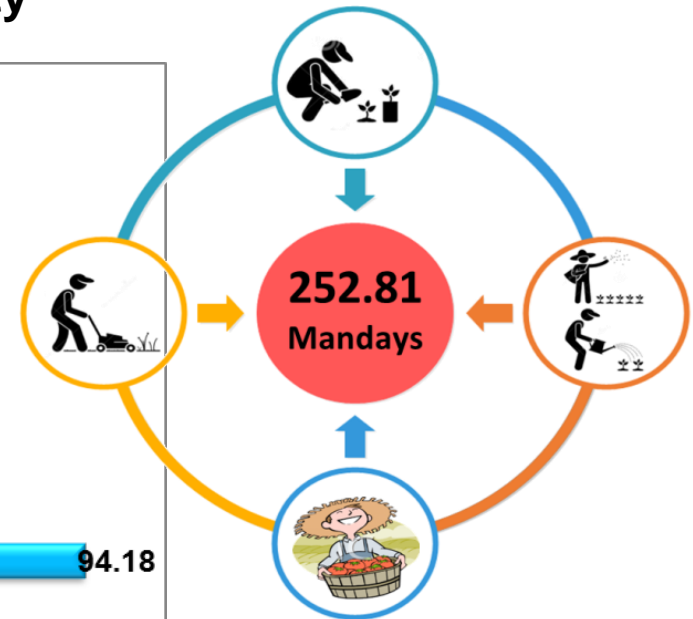
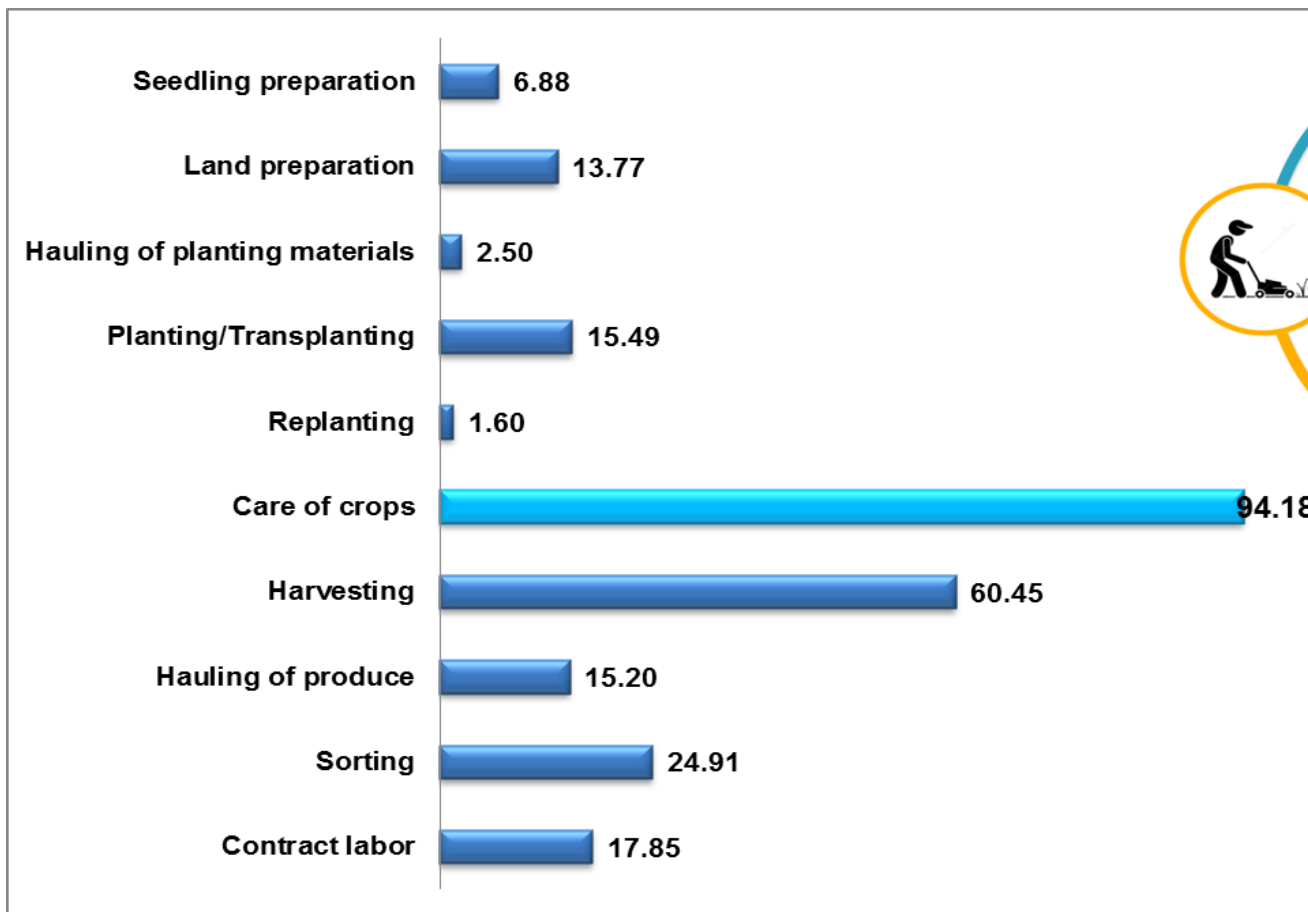
Province	All Sources	Operator Labor	Family Labor	Exchange Labor	Hired Labor	
					Per Day	By Contract
Total	252.81	50.82	22.43	0.32	161.50	17.73





INPUT USAGE

Average labor utilization in mandays per hectare of tomato production by major farm activity



FARMER CHARACTERISTICS

Distribution by Sex and Average Age



92.89 %
MALES



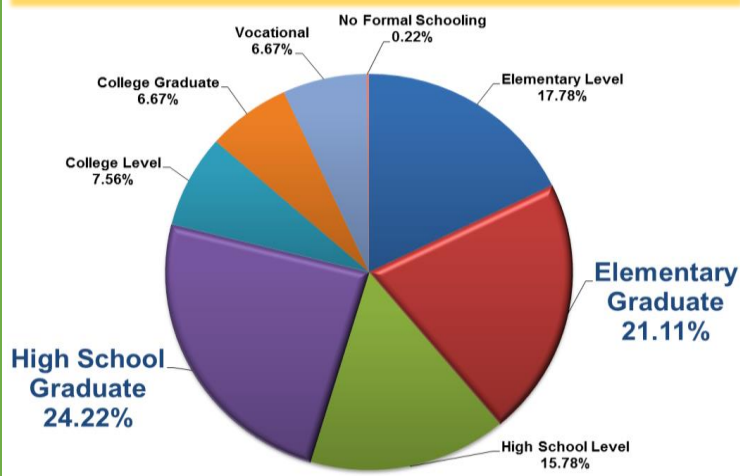
7.11 %
FEMALES

***100% male in ILOCOS NORTE.**




***Age range:**
43 yrs. old in BUKIDNON to
51 yrs. old in ILOCOS SUR.

Distribution by Highest Educational Attainment



Elementary
32% in CEBU



High School
41.33% in ILOCOS NORTE



College
16% in ILOCOS SUR



Average Farming Experience



14 years
experience
in tomato
farming

***Range is from :**
10 yrs. in BUKIDNON to
18 yrs. in CEBU.

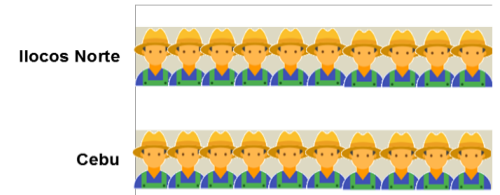
Distribution by Main Occupation



Farming is the
main occupation
of **95.56%** of
the sample
tomato farmers

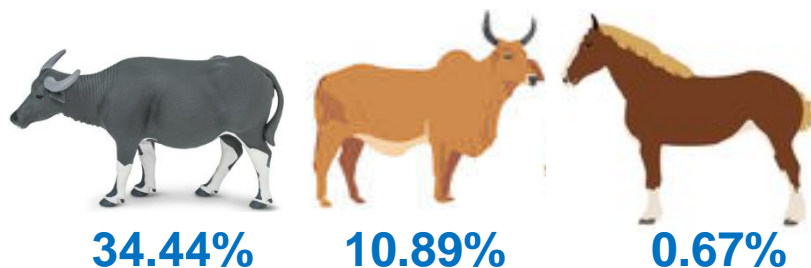
■ Farmers, Forestry Workers and Fishermen

0.00 20.00 40.00 60.00 80.00 100.00

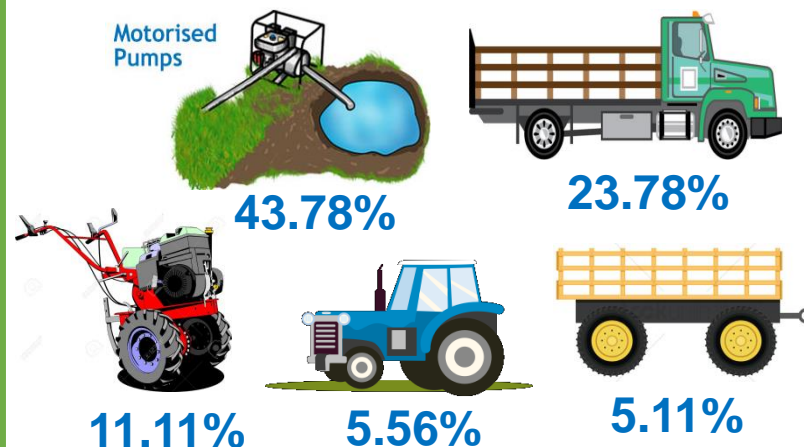


FARMER CHARACTERISTICS

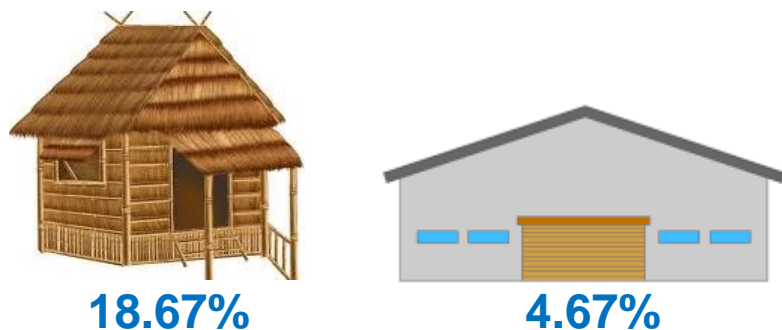
Percentage of tomato farmers by type of farm investment owned and used in tomato farm parcels



WORK ANIMALS



FARM MACHINERY & TRANSPORT FACILITIES



FARM BUILDINGS & OTHER STRUCTURES

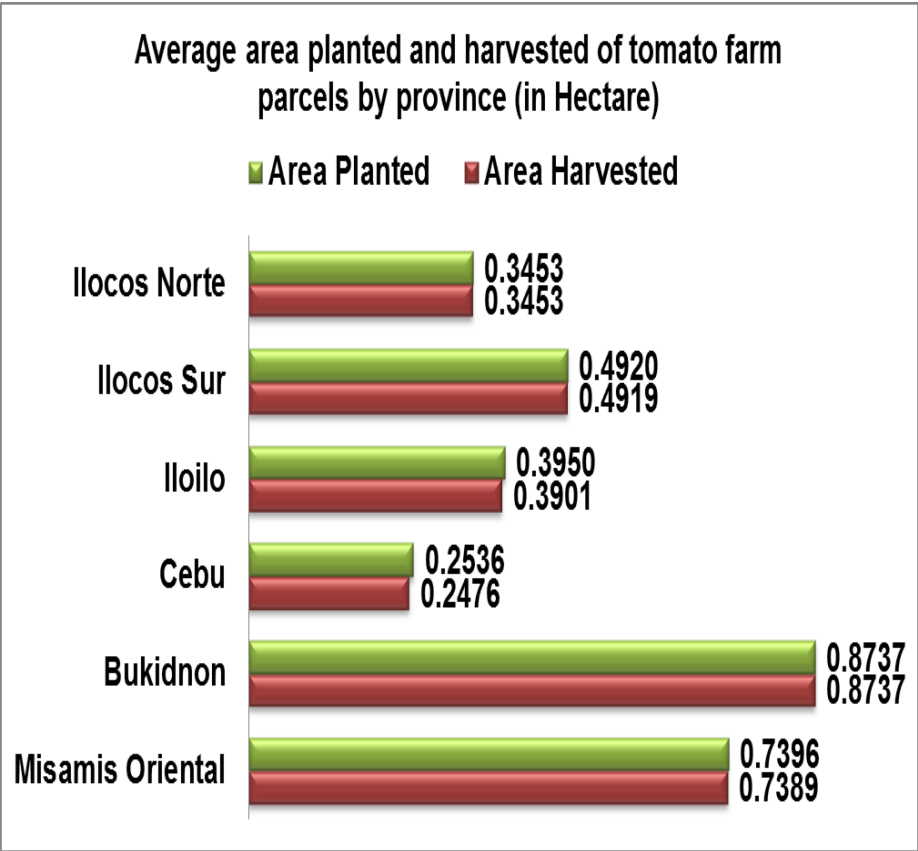
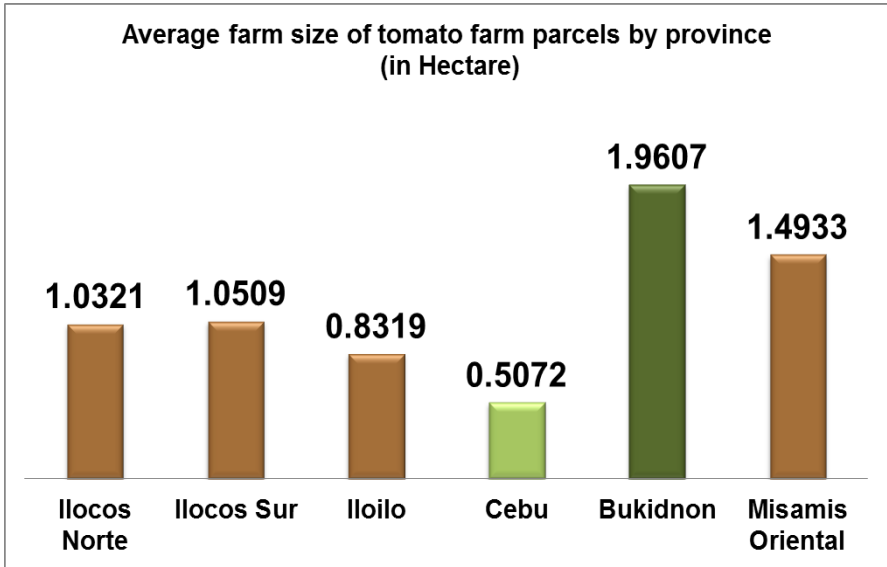


FARM TOOLS & IMPLEMENTS

FARM CHARACTERISTICS



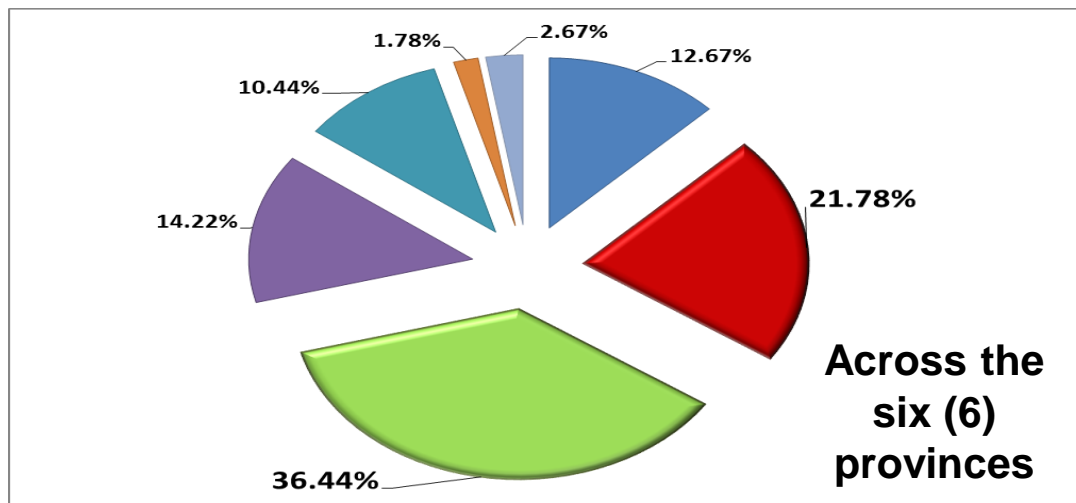
Average farm size across the six (6) provinces is **1.1460 hectares**





FARM CHARACTERISTICS

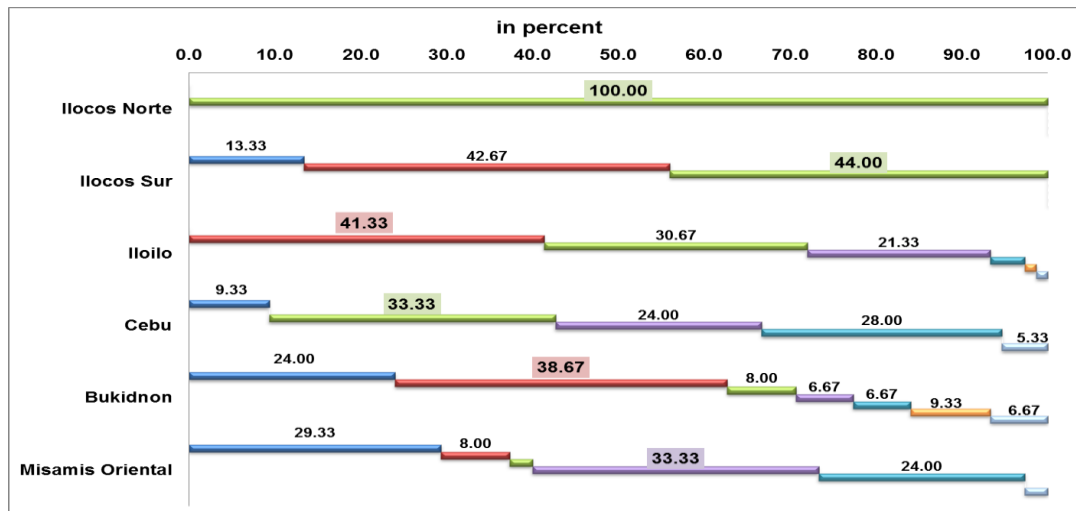
Percentage distribution of tomato farm parcels by tenural status



- Fully Owned
- Leased / Rented
- Tenanted
- Rent- Free



- Owner-like Possession
- Held under CLT / CLOA
- Mortgaged



FARM PRACTICES

Percentage of tomato farmers by variety and source of seeds

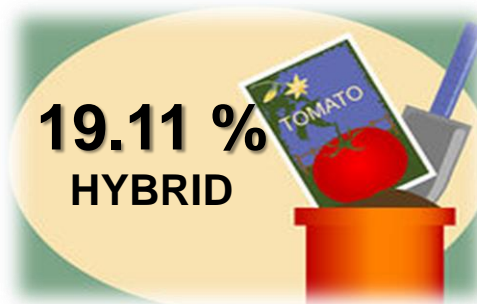
Top 3 Tomato Seed Variety



*93% to 96% used this seed in Iloilo and Cebu.

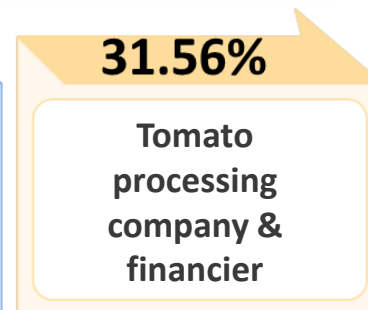
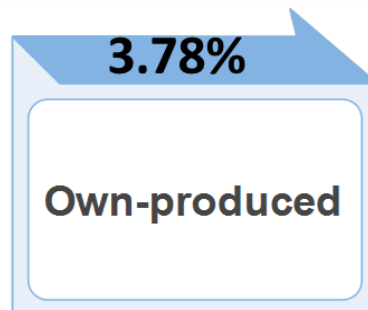
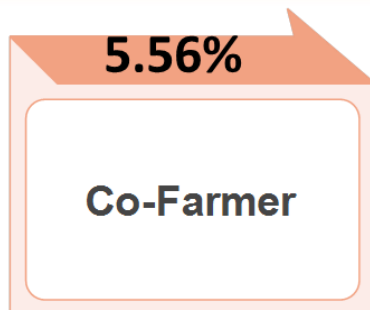


*92% to 99% used this seed in Ilocos Norte and Ilocos Sur.



*45% to 69% used this seed in Bukidnon and Misamis Oriental.

Sources of Tomato Seeds



**In Ilocos Norte and Ilocos Sur, 92% to 93% sourced their seeds from tomato processing company.*

FARM PRACTICES

Percentage distribution of tomato farmers by month of planting and harvesting

Across the six (6) provinces

Activity	2016				2017								
	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June	Jul	Aug	Sept
Planting	10.00	6.89	11.33	11.11	17.33	10.22	8.44	5.56	10.22	6.44	2.44		
Harvesting			1.56	7.56	3.78	8.00	15.11	21.78	12.44	4.89	8.22	7.78	8.89

Luzon provinces

Ilocos Norte

Activity	2016				2017								
	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June	Jul	Aug	Sept
Planting	9.33	1.33	29.33	20.00	40.00								
Harvesting				4.00	5.33	26.67	24.00	40.00					

Ilocos Sur

Activity	2016				2017								
	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June	Jul	Aug	Sept
Planting	1.33	16.00	30.67	25.33	24.00	2.67							
Harvesting					2.67	5.33	37.33	49.33	5.33				

FARM PRACTICES

Percentage distribution of tomato farmers by month of planting and harvesting

Visayas provinces

Iloilo

Activity	2016				2017								
	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June	Jul	Aug	Sept
Planting	32.00	14.67	5.33	16.00	16.00	13.33	2.67						
Harvesting			4.00	22.67	10.67	13.33	13.33	17.33	18.67				

Cebu

Activity	2016				2017								
	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June	Jul	Aug	Sept
Planting	17.33	9.33	2.67	5.33	20.00	38.67	6.67						
Harvesting			5.33	18.67	4.00	2.67	16.00	20.00	33.33				

Mindanao provinces

Bukidnon

Activity	2016				2017								
	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June	Jul	Aug	Sept
Planting					4.00	4.00	6.67	13.33	37.33	28.00	6.67		
Harvesting								4.00	4.00	8.00	21.33	28.00	34.67

Misamis Oriental

Activity	2016				2017								
	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June	Jul	Aug	Sept
Planting						2.67	34.67	20.00	24.00	10.67	8.00		
Harvesting									13.33	21.33	28.00	18.67	18.67

FARM PRACTICES

Percentage of tomato farmers by type of labor used in seedling and land preparation



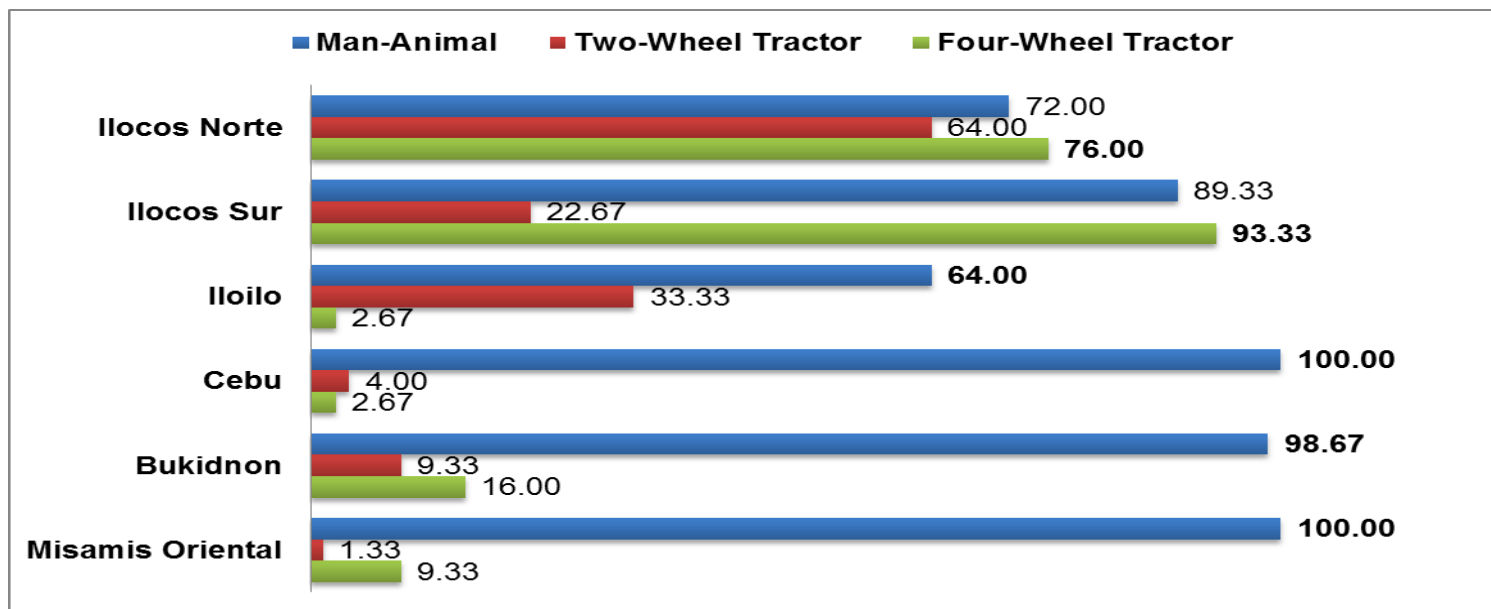
87.33% of the sample farmers employed man-animal labor



22.44% of the sample farmers employed man-machine (2-Wheel Tractor) labor



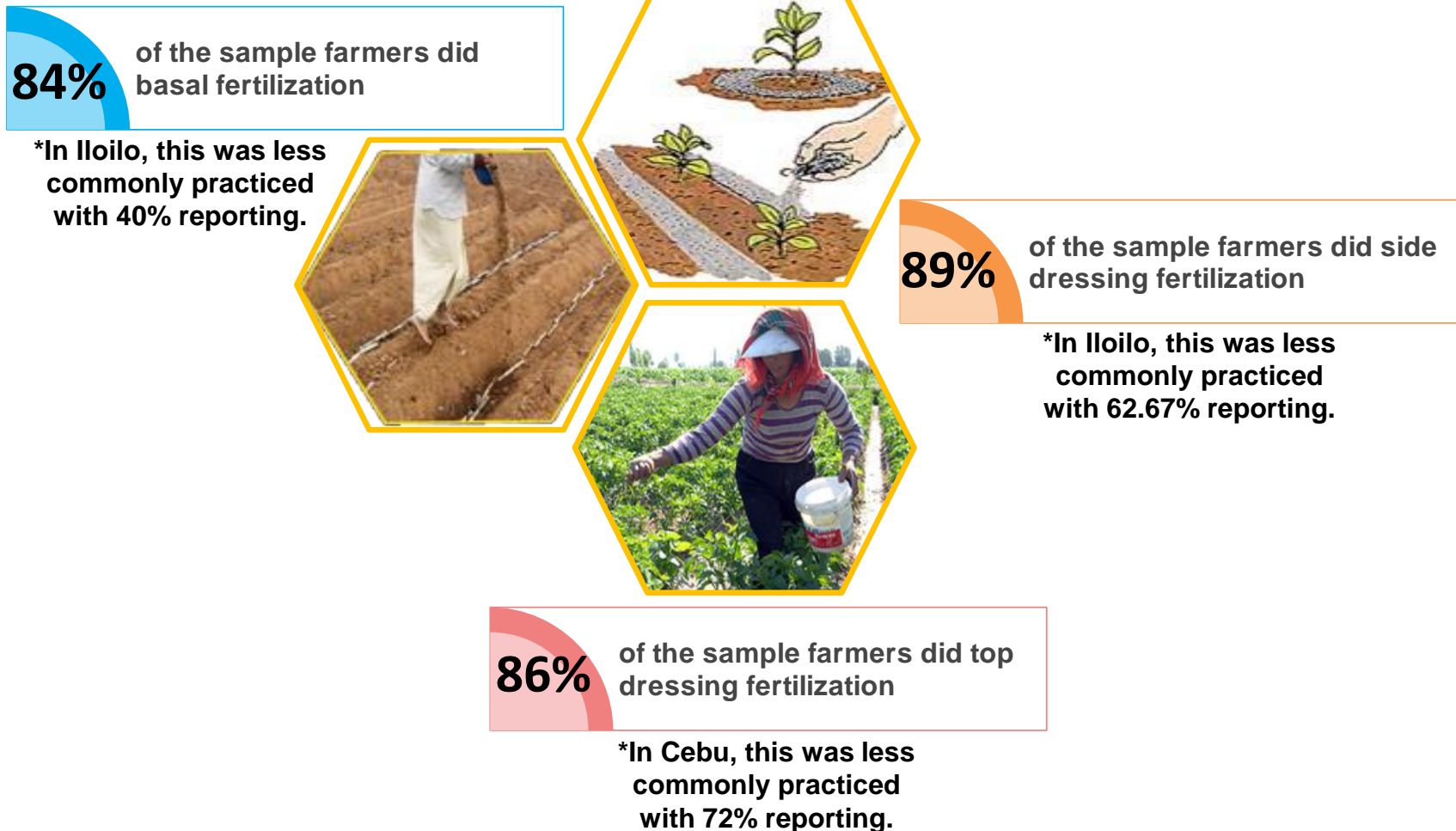
33.33% of the sample farmers employed man-machine (4-Wheel Tractor) labor





FARM PRACTICES

Percentage of tomato farmers by method of fertilizer application

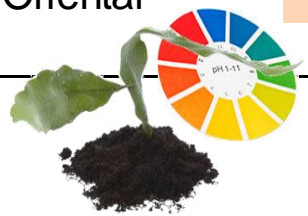


FARM PRACTICES

Percentage distribution of tomato farmers who applied/did not apply soil ameliorants and mulching materials



Province	Soil Ameliorants		Mulching Materials	
	Applied	Did Not Apply	Applied	Did Not Apply
Total	13.78	86.22	33.78	66.22
Ilocos Norte		100.00	97.33	2.67
Ilocos Sur		100.00	81.33	18.67
Iloilo		100.00	9.33	90.67
Cebu		100.00		100.00
Bukidnon	37.33	62.67		100.00
Misamis Oriental	45.33	54.67	14.67	85.33





FARM PRACTICES

Percentage of tomato farmers by grade/name of fertilizers used



Top 5 Fertilizers Used According to Sample Farmers

68.67% of sample farmers used
Complete (14-14-14)

50.67% of sample farmers used
Muriate of Potash (0-0-60)

50.44% of sample farmers used
Ammonium Phosphate (16-20-0)

48.67% of sample farmers used
Urea (46-0-0)

44.67% of sample farmers used
Ammonium Sulfate (21-0-0)

MOST COMMON FERTILIZERS USED BY PROVINCE

ILOCOS NORTE

96% - Ammonium Sulfate (21-0-0)
88% - Muriate of Potash (0-0-60)

ILOCOS SUR

92% - Muriate of Potash (0-0-60)
81% - Ammonium Sulfate (21-0-0)

ILOILO

69% - Complete (14-14-14)
52% - Ammonium Phosphate
(16-20-0)

CEBU

79% - Urea (46-0-0)
77% - Complete (14-14-14)

BUKIDNON

87% - Animal Manure
84% - Complete (14-14-14)
81% - Urea (46-0-0)

MISAMIS ORIENTAL

96% - Animal Manure
88% - Complete (14-14-14)
68% - Complete (16-16-16)



FARM PRACTICES

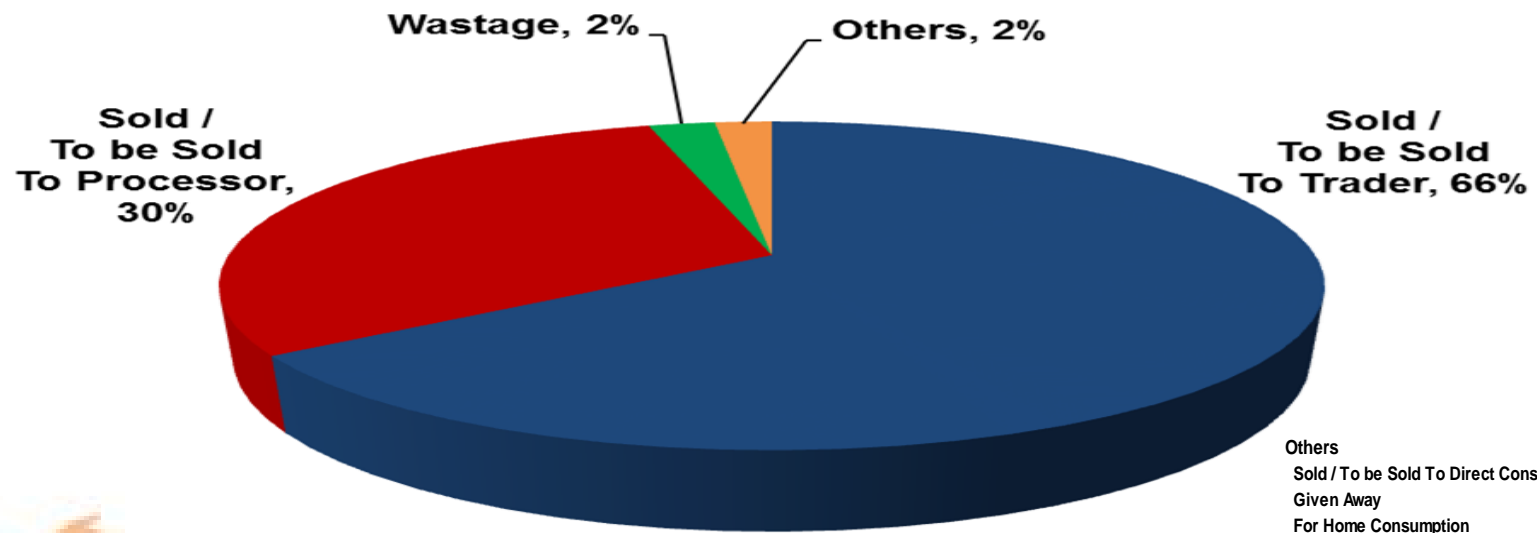
Percentage of tomato farmers by type of pesticides used

Province	Herbicides / Weedicides		Insecticides		Fungicides	
	Solid	Liquid	Solid	Liquid	Solid	Liquid
Total	4.89	48.44	41.33	95.56	68.89	34.67
Ilocos Norte	9.33	42.67	5.33	90.67	54.67	25.33
Ilocos Sur		8.00		100.00	16.00	68.00
Iloilo	1.33	82.67	77.33	93.33	92.00	18.67
Cebu	13.33	25.33	50.67	93.33	56.00	2.67
Bukidnon	2.67	78.67	57.33	98.67	96.00	72.00
Misamis Oriental	2.67	53.33	57.33	97.33	98.67	21.33



OTHER INFORMATION

Percentage distribution of tomato produce by disposition item

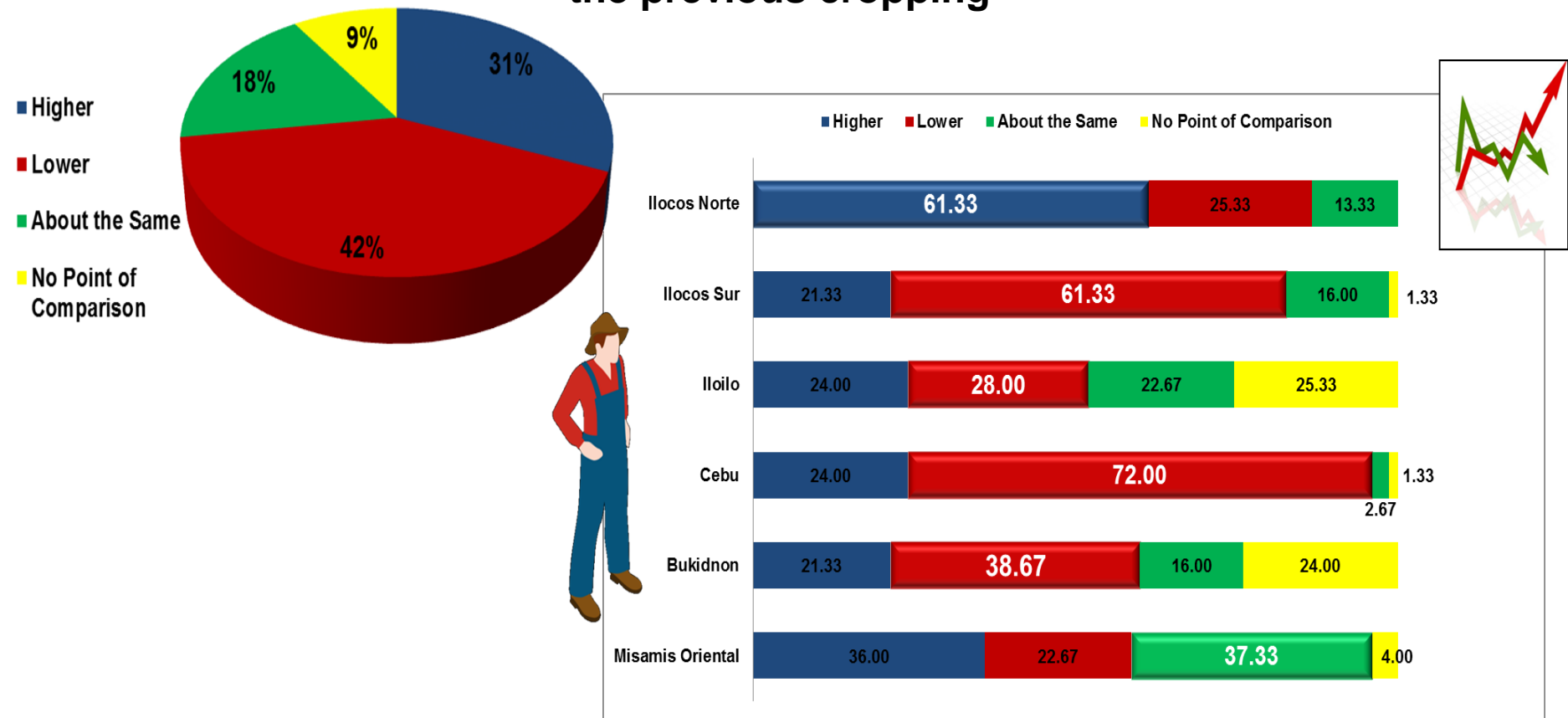


Others	
Sold / To be Sold To Direct Consumer	0.83%
Given Away	0.55%
For Home Consumption	0.12%
For Home-based Processing	0.01%
Used/To be Used for Planting Materials	0.01%
Other Laborers' Share	< 0.01%
Landowner's Share	< 0.01%
Financier's Share	< 0.01%
Paid to Creditor	< 0.01%

Province	Sold / To be Sold To Trader	Sold / To be Sold To Processor	Wastage
Ilocos Norte	14.71	81.32	0.27
Ilocos Sur	8.79	89.62	0.73
Iloilo	96.99		1.26
Cebu	99.27		0.08
Bukidnon	94.11		5.13
Misamis Oriental	96.13		1.96

OTHER INFORMATION

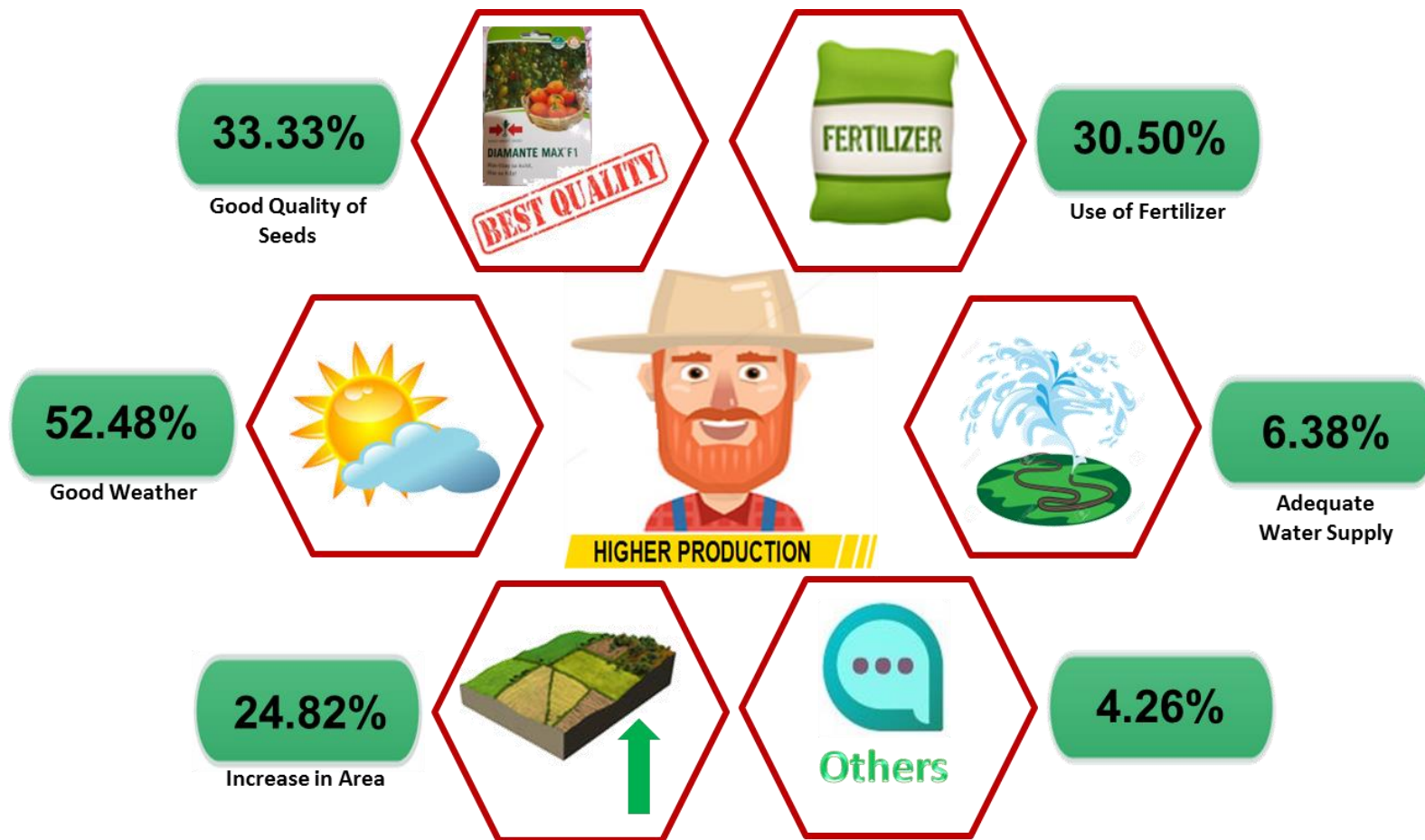
Percentage distribution of tomato farmers reporting on the current level of production in comparison with the production in the previous cropping





OTHER INFORMATION

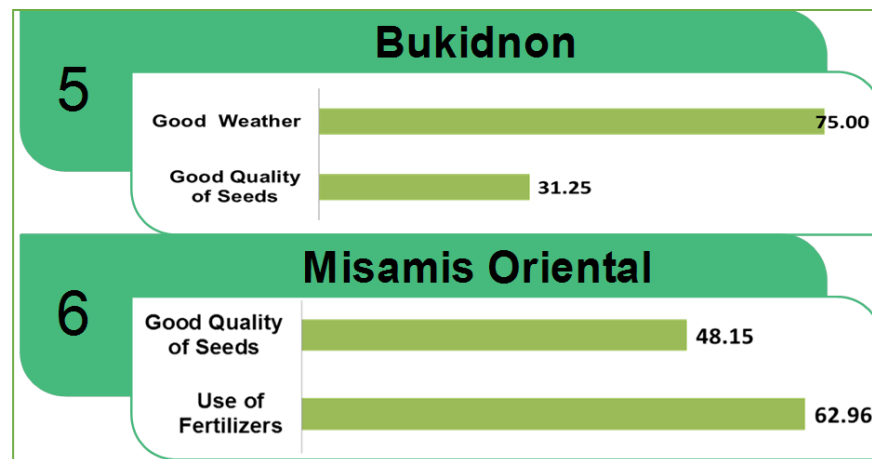
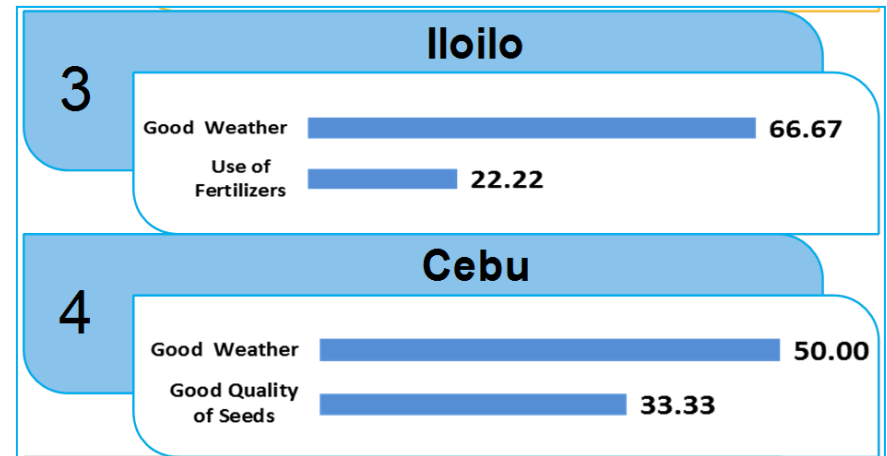
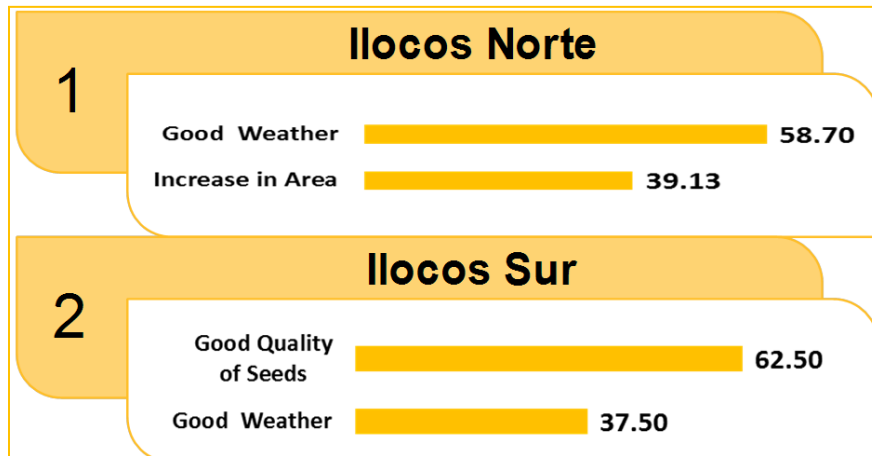
Percentage of tomato farmers with higher volume of production this year by reason for change in production





OTHER INFORMATION

Percentage of tomato farmers with higher volume of production this year by reason for change in production





OTHER INFORMATION

Percentage of tomato farmers with lower volume of production this year by reason for change in production

Pests and

9.68%



1.08%

Inadequate Water Supply

18.82%

Low Quality of Seeds



60.22%

Bad Weather



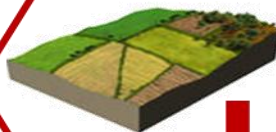
43.01%

Poor Quality of Produce



9.14%

Decrease in Area



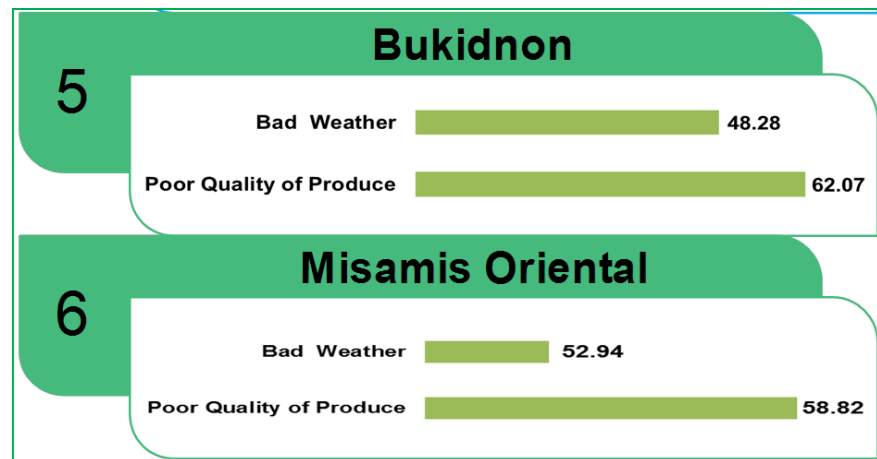
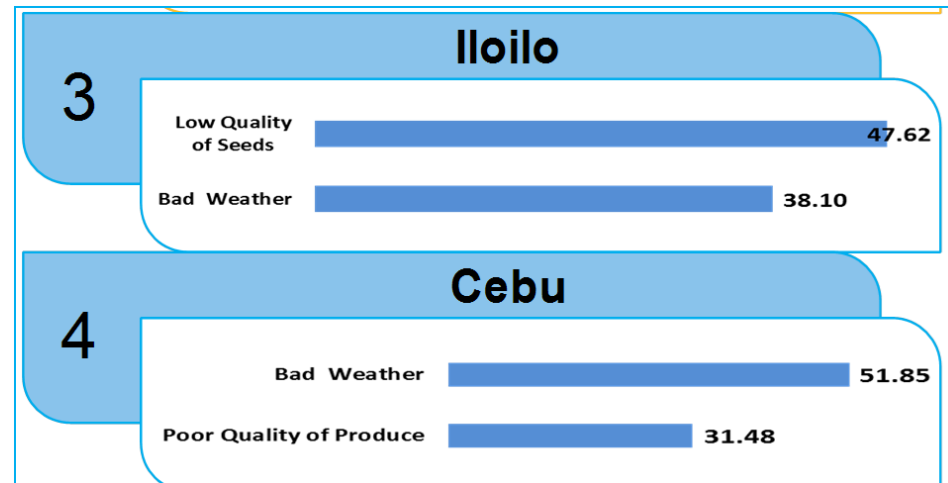
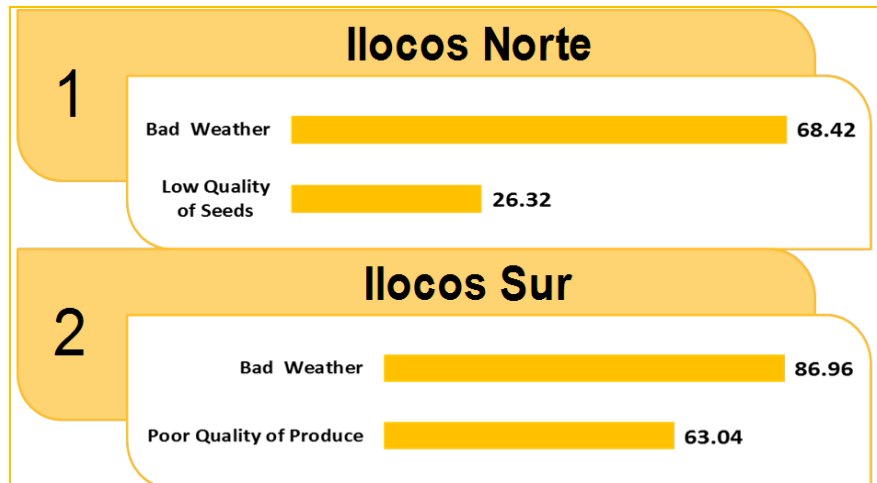
Others

3.76%



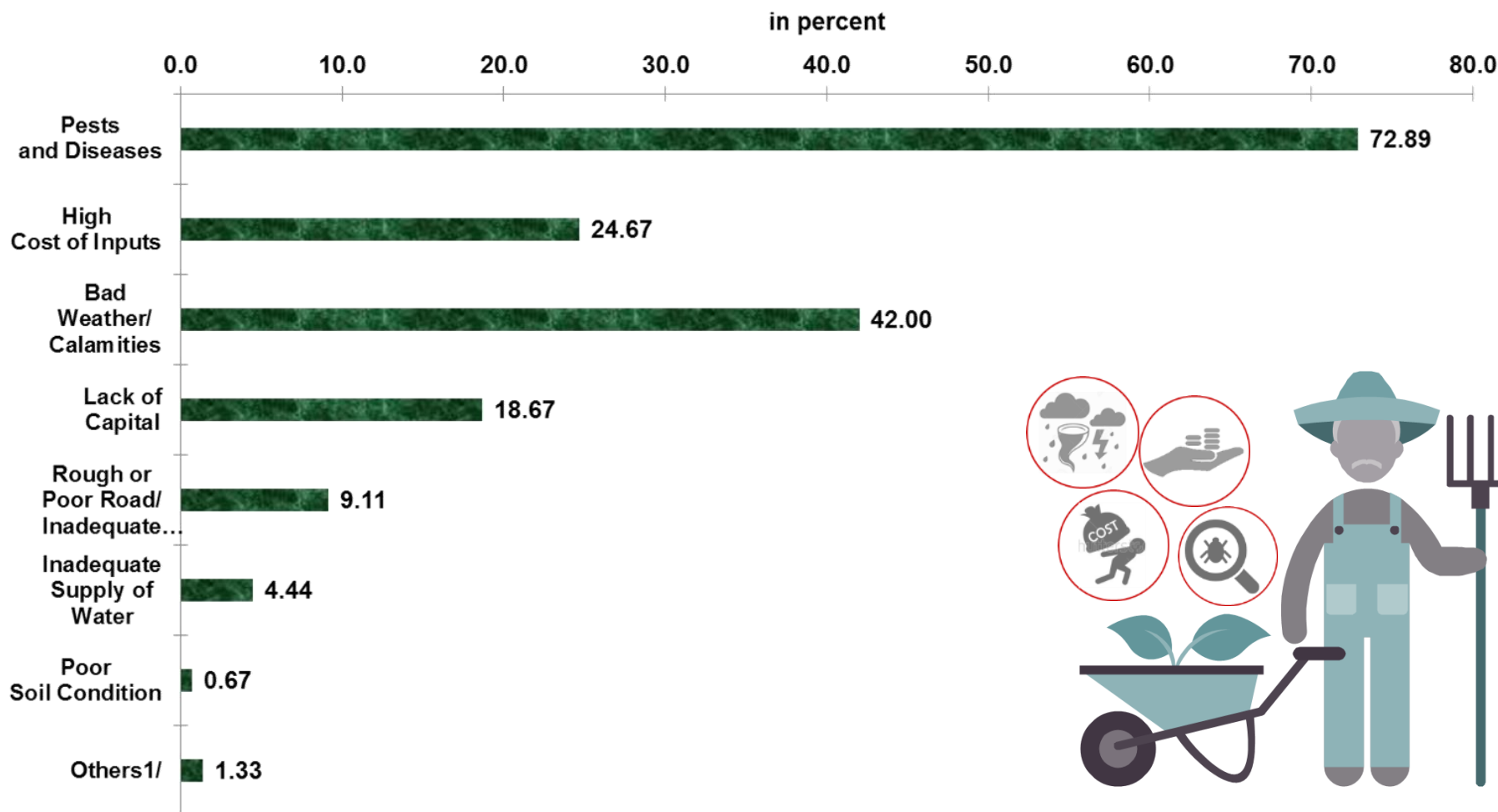
OTHER INFORMATION

Percentage of tomato farmers with lower volume of production
this year by reason for change in production



OTHER INFORMATION

Percentage of tomato farmers reporting problems on production

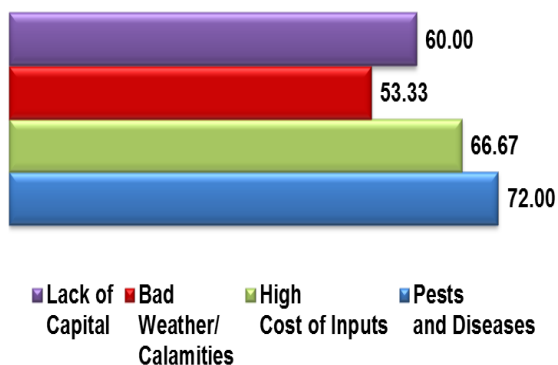




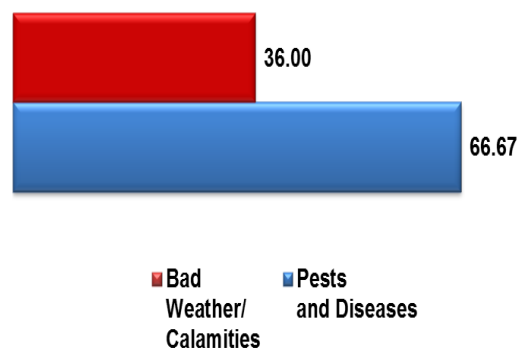
OTHER INFORMATION

Leading problems on production by province

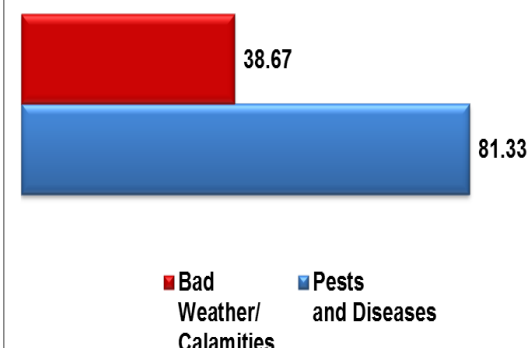
Ilocos Norte



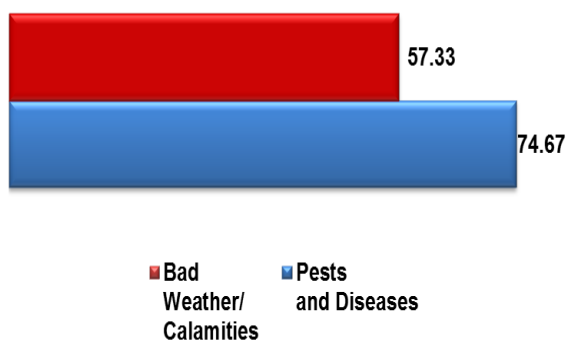
Iloilo



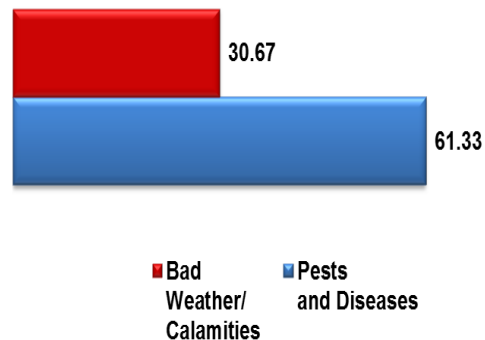
Bukidnon



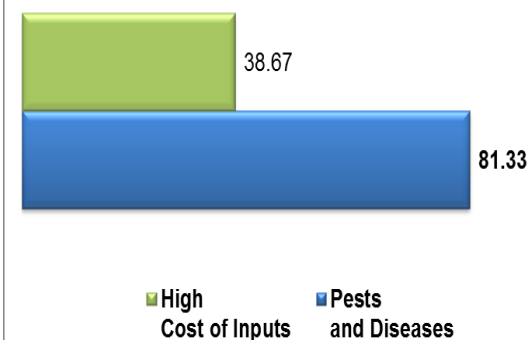
Ilocos Sur



Cebu



Misamis Oriental

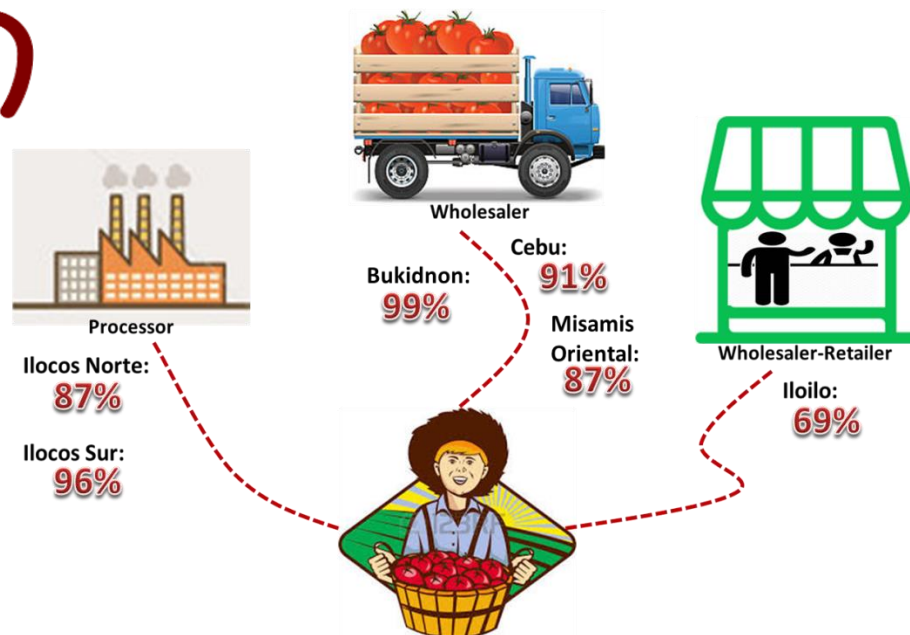


OTHER INFORMATION

Percentage of tomato farmers reporting on the buyers of produce



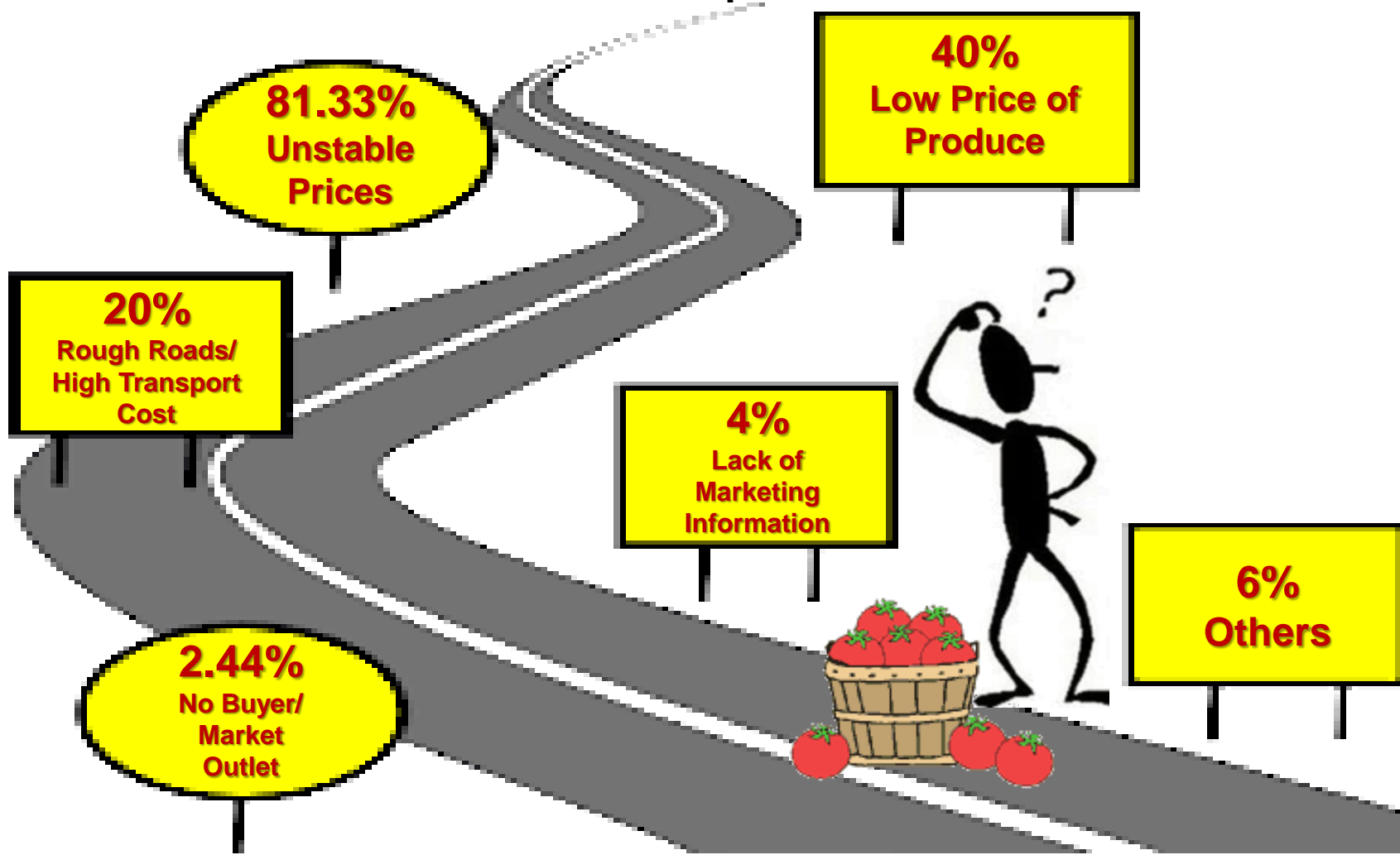
Top Buyers of Produce According to Tomato Farmers by Province





OTHER INFORMATION

Percentage of tomato farmers reporting problems on marketing of produce



OTHER INFORMATION

Leading problems on marketing of produce by province

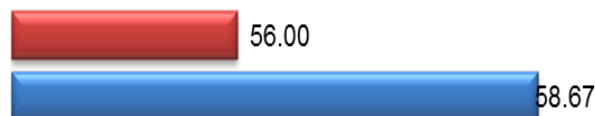
Ilocos Norte

■ Low Price of Produce ■ Unstable Prices



Iloilo

■ Low Price of Produce ■ Unstable Prices



Bukidnon

■ Rough Roads/ High Transport Cost ■ Unstable Prices



Ilocos Sur

■ Low Price of Produce ■ Unstable Prices



Cebu

■ Rough Roads/ High Transport Cost ■ Unstable Prices



Misamis Oriental

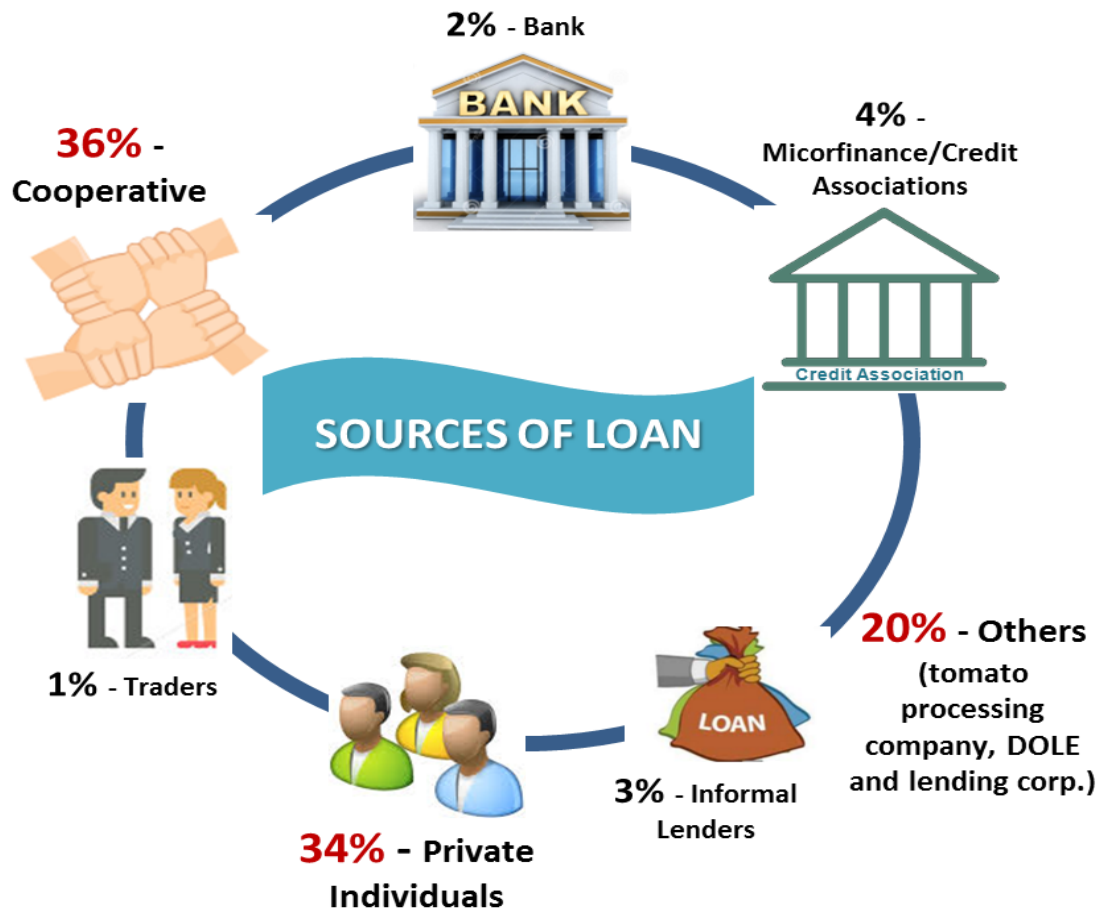
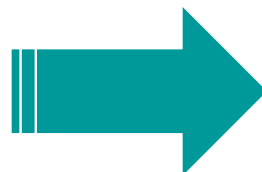
■ Rough Roads/ High Transport Cost ■ Unstable Prices



OTHER INFORMATION

Percentage of tomato farmers who availed loans for tomato production by major source of loan

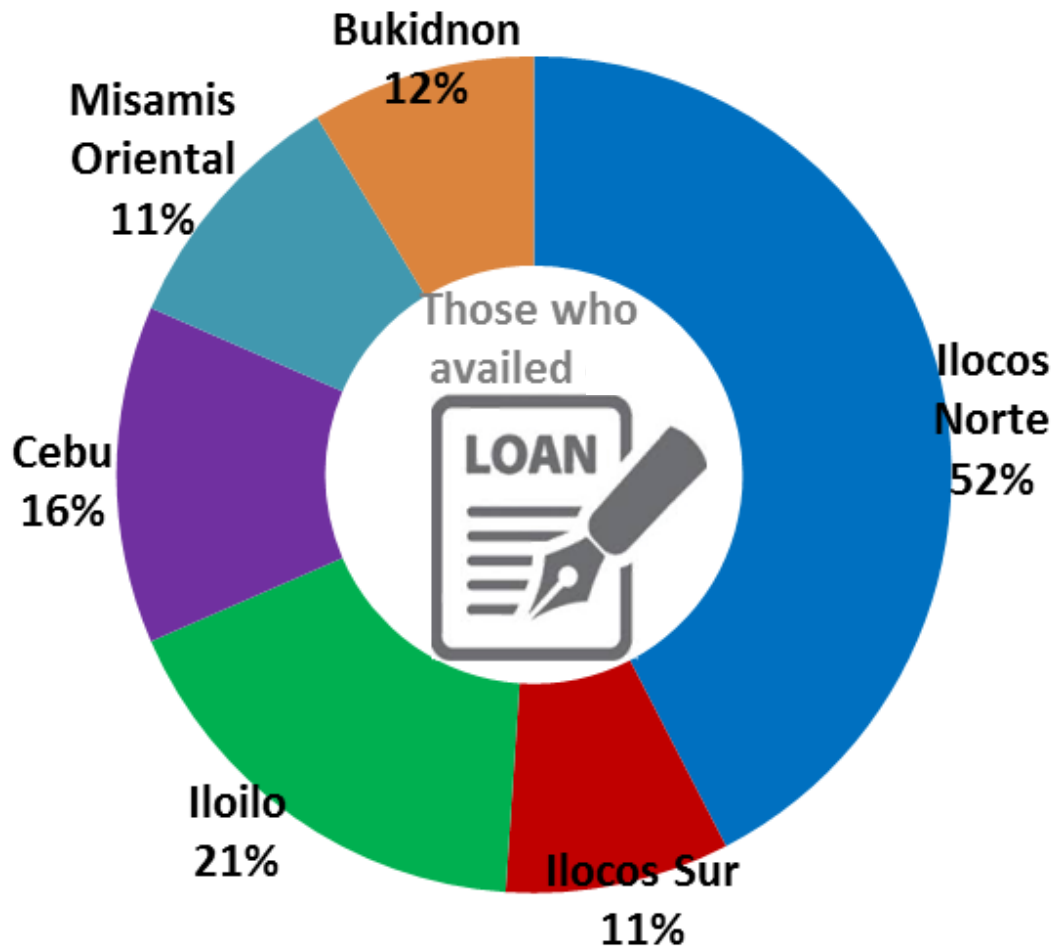
20.44% of the sample farmers in the six (6) covered provinces availed of





OTHER INFORMATION

Percentage of tomato farmers who availed loans for tomato production by major source of loan



Loan from Cooperatives:

62 to 67% of farmers who availed loans in Bukidnon and Ilocos Norte



Loan from Private Individuals:

50 to 83% of farmers who availed loans in Misamis Oriental, Ilocos Sur, Iloilo and Cebu

OTHER INFORMATION

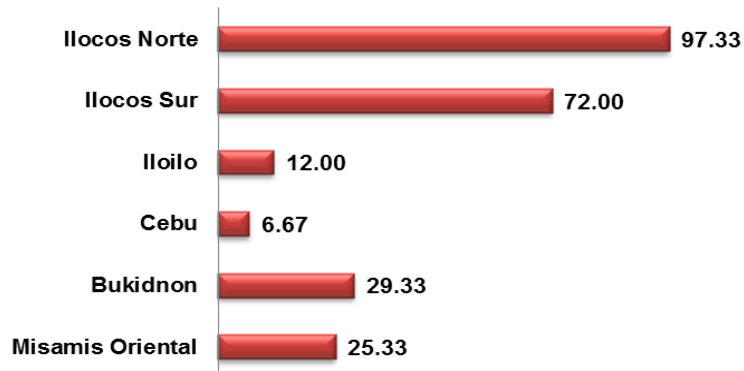
Percentage of tomato farmers who were aware and availed benefit from government programs/interventions on tomato production



40%

Aware of government programs/interventions

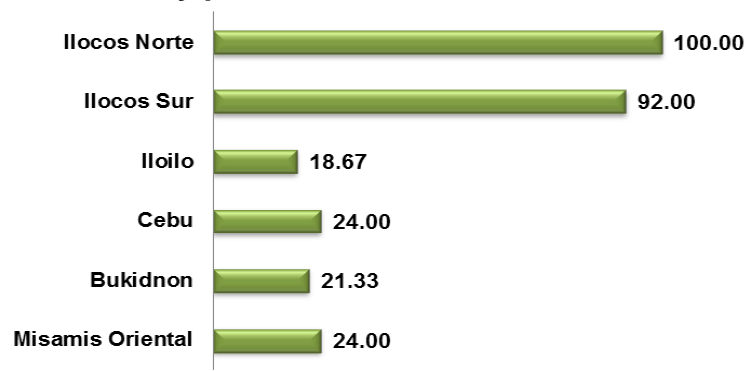
By province, these were:



47%

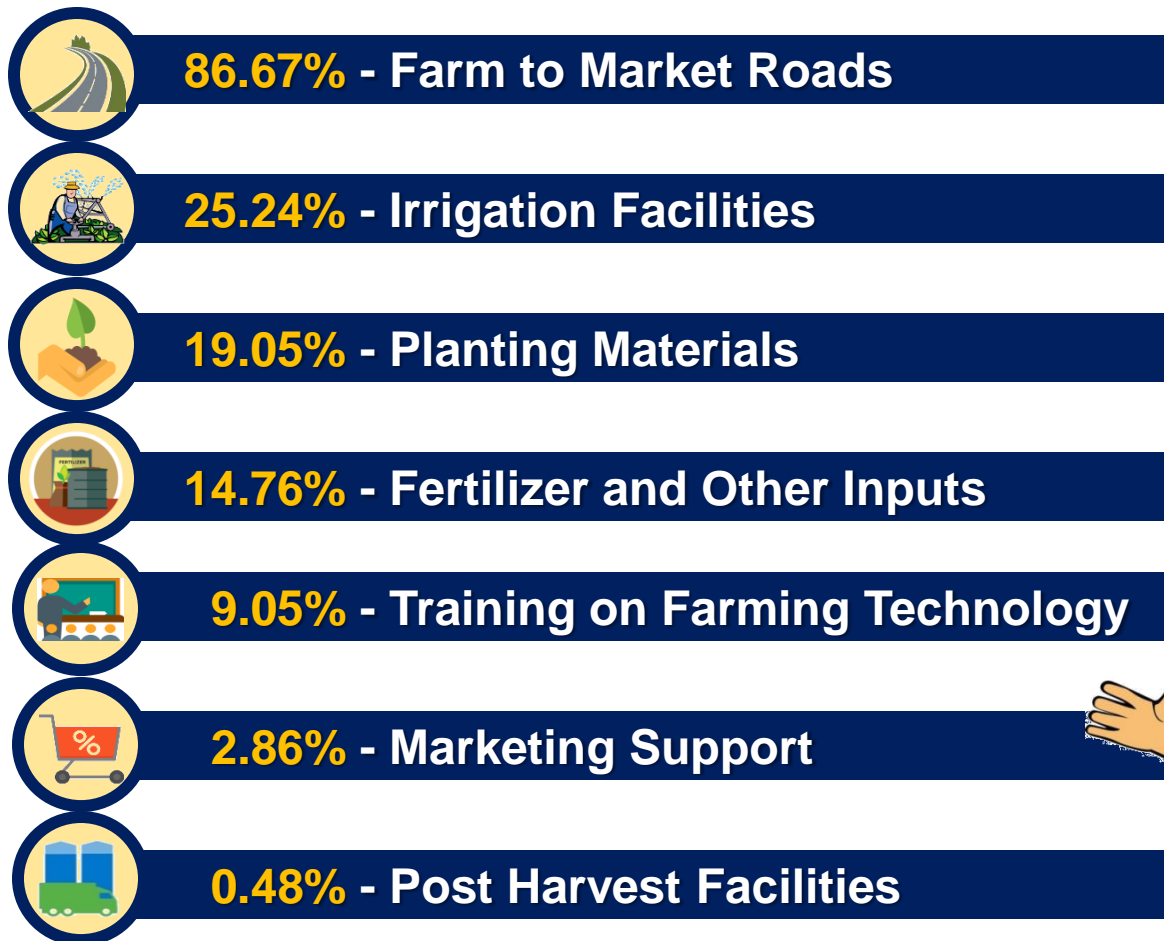
Availed government programs/interventions

By province, these were:



OTHER INFORMATION

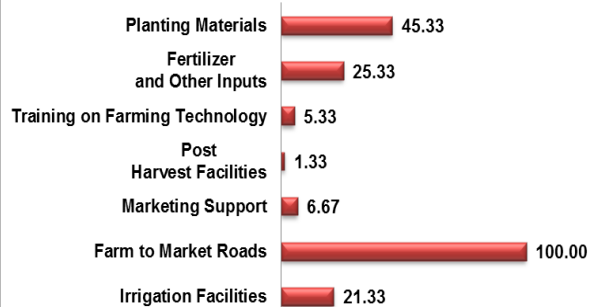
Percentage of tomato farmers who availed benefit from government by type of programs/interventions on tomato production



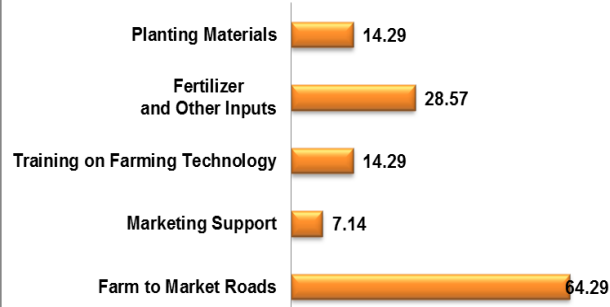
OTHER INFORMATION

Percentage of tomato farmers who availed benefit from government by type of programs/interventions on tomato production

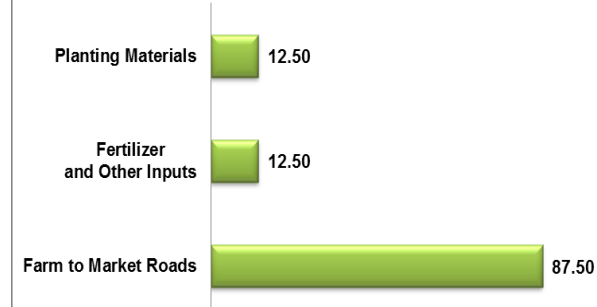
Ilocos Norte



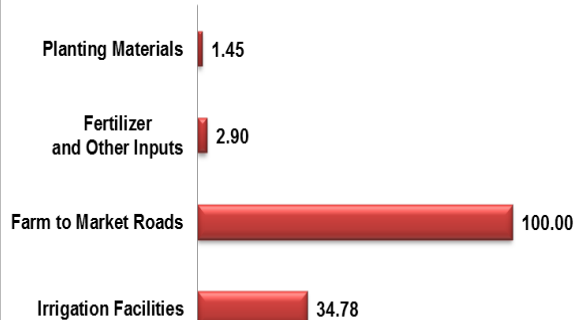
Iloilo



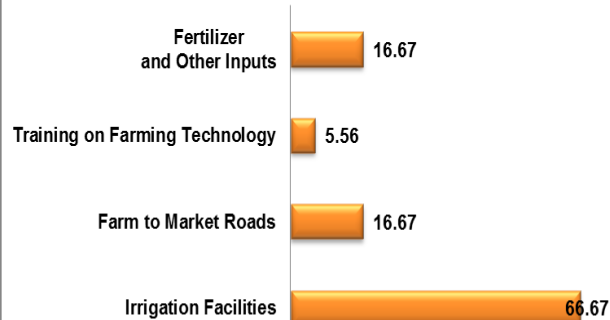
Bukidnon



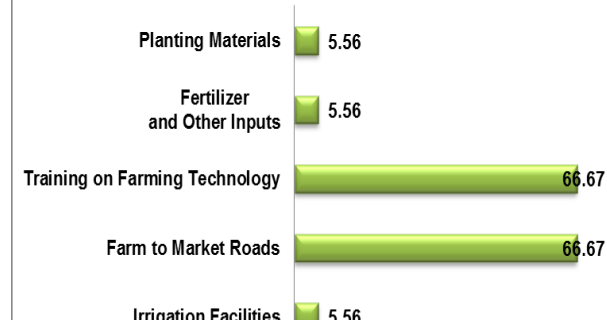
Ilocos Sur



Cebu



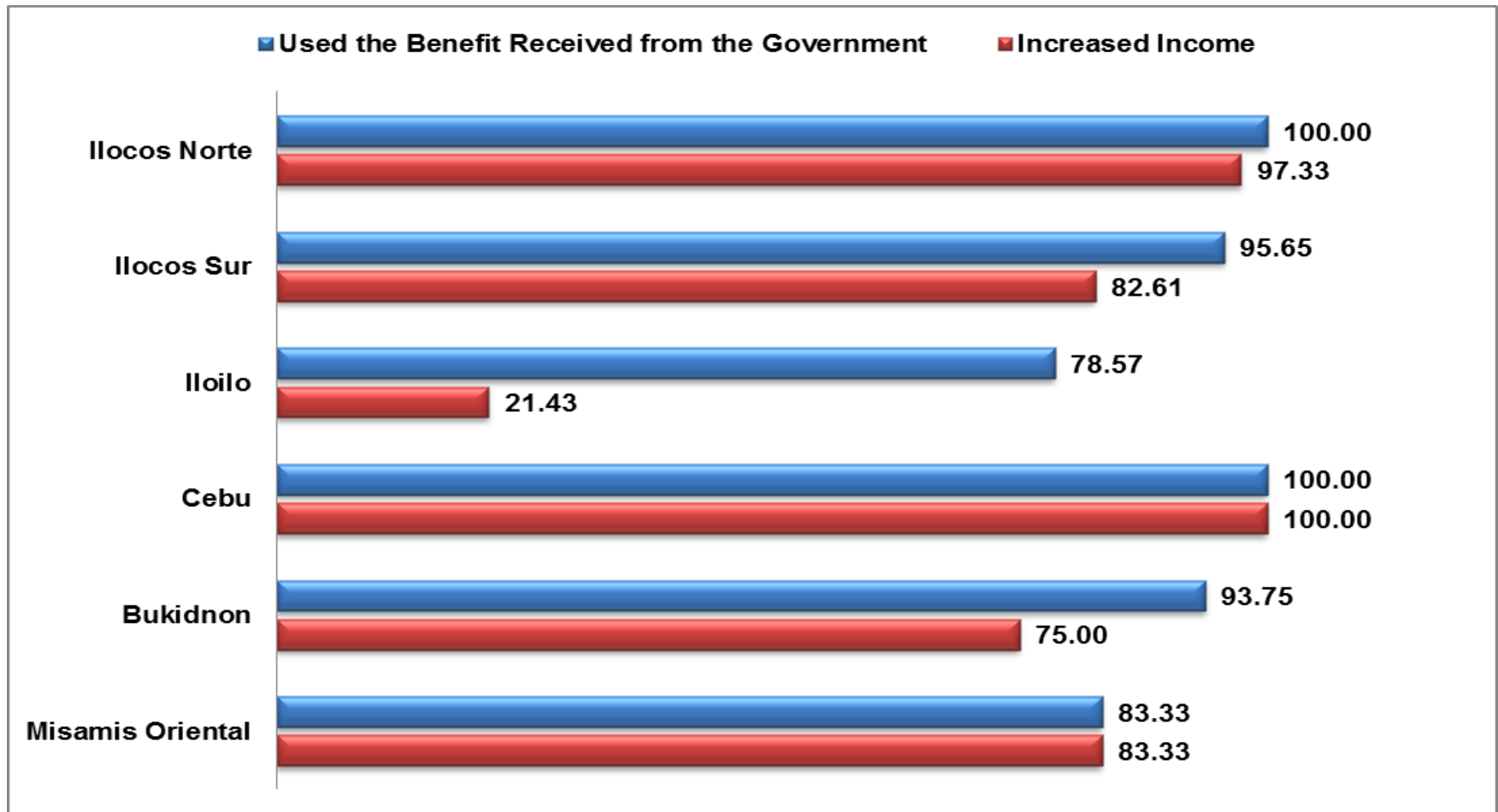
Misamis Oriental





OTHER INFORMATION

Percentage of tomato farmers who used the benefit received and increased income





OTHER INFORMATION

Percentage of tomato farmers by perceived effect of climate change on their tomato farming

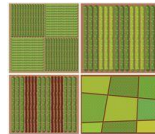
**72.89% of farmers
perceived to be
affected by climate
change**



PERCEIVED EFFECTS



58.54% - Decrease in Yield



46.04% - Change in Cropping Pattern



27.44% - Increase in Input Usage



1.52% - Decrease in Frequency of Plowing

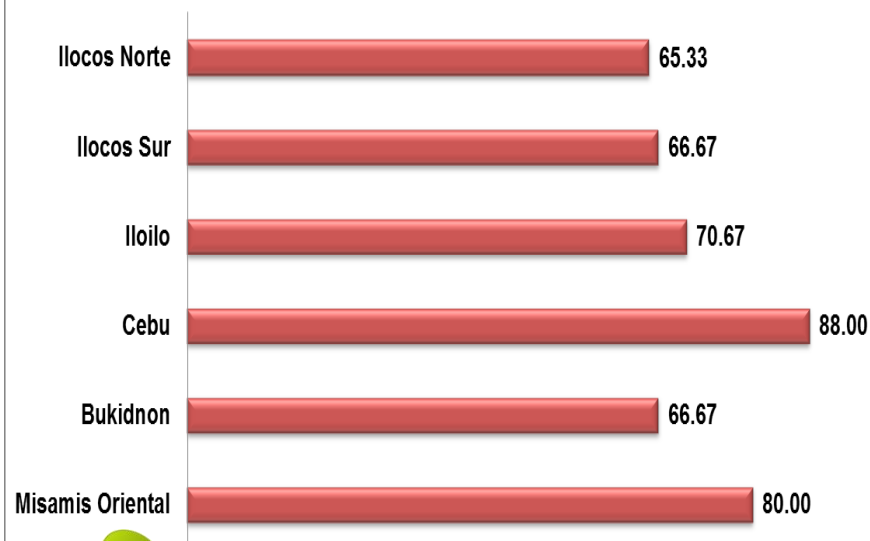


0.61% - Others

OTHER INFORMATION

Percentage of tomato farmers by perceived effect of climate change on their tomato farming

Percentage of tomato farmers affected by climate change by province



Top perceived effect of climate change by province

Ilocos Norte

55.10% - Change in Cropping Pattern

Iloilo

62.26% - Decrease in Yield

Bukidnon

70% - Increase in Input Usage

Ilocos Sur

98% - Change in Cropping Pattern

Cebu

89.39% - Decrease in Yield

Misamis Oriental

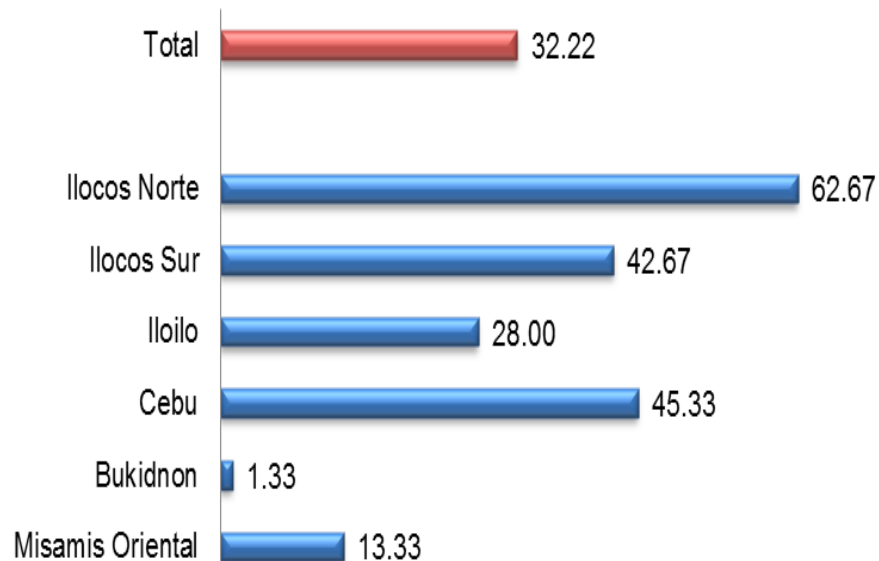
63.33% - Decrease in Yield



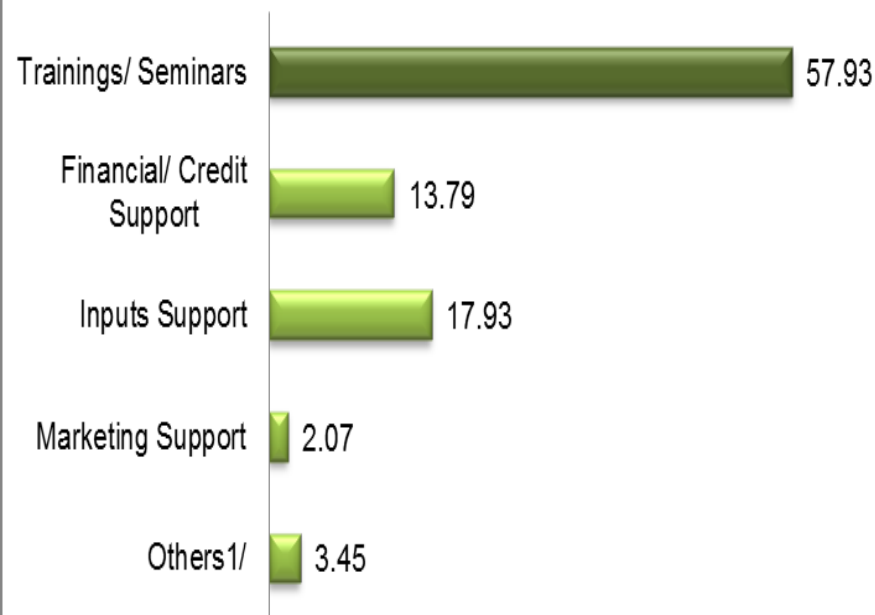


OTHER INFORMATION

Percentage of tomato farmers who were members of farmers' organization by province



Percentage of tomato farmers reporting on the type of benefits received from the farmers' organization

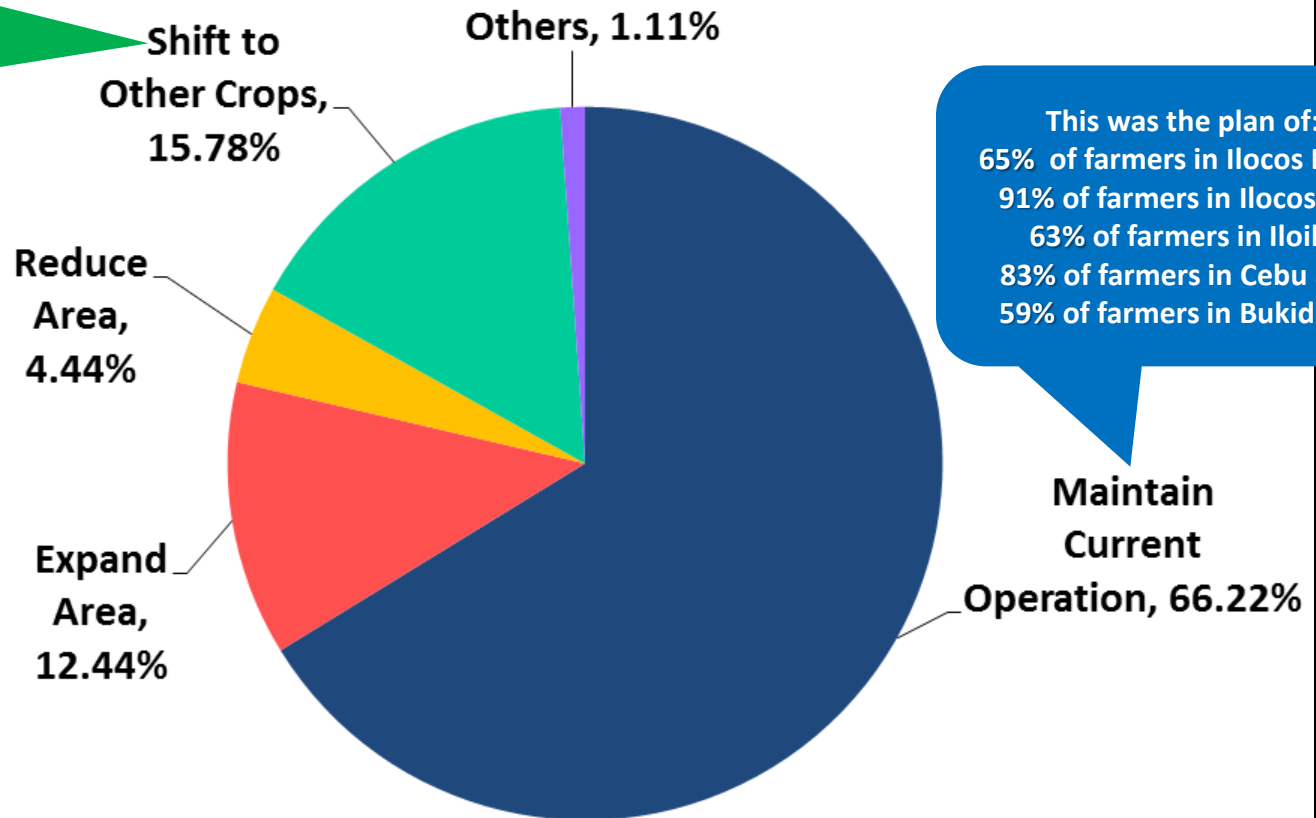




OTHER INFORMATION

Percentage distribution of tomato farmers reporting on the plan of farm operations

This was the plan of 39% of farmers in Misamis Oriental



This was the plan of:
65% of farmers in Ilocos Norte
91% of farmers in Ilocos Sur
63% of farmers in Iloilo
83% of farmers in Cebu and
59% of farmers in Bukidnon

Maintain Current Operation, 66.22%



OTHER INFORMATION

Percentage of tomato farmers reporting on the recommendations to further improve the tomato production



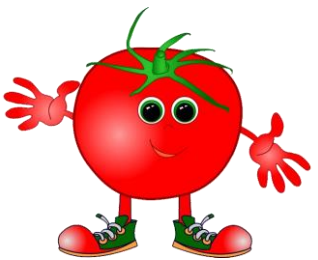
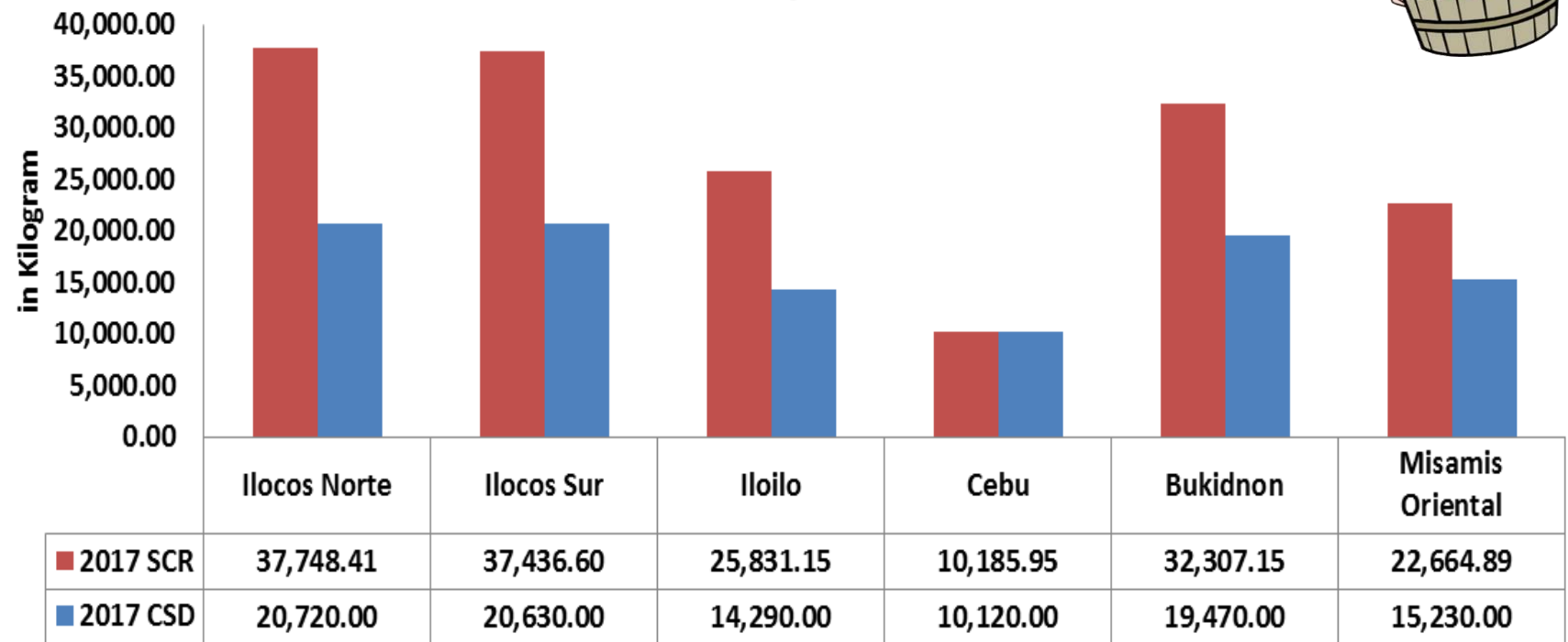
Recommendation	Total	Province					
		Ilocos Norte	Ilocos Sur	Iloilo	Cebu	Bukidnon	Misamis Oriental
Implement pricing policies to support fair product prices at the farmgate	28.89	78.67	16.00	6.67	1.33	42.67	28.00
Provide financial assistance	20.00	4.00	1.33	24.00	65.33	21.33	4.00
Increase government subsidy on seeds, fertilizers and pesticides	17.78	9.33	10.67	6.67	16.00	29.33	34.67
Enhance production and marketing information system for tomato farmers	14.89	10.67	1.33	56.00	1.33	17.33	2.67
Provide farm to market roads and other post-harvest facilities	6.89		1.33	2.67		8.00	29.33
Increase credit available to tomato farmers	5.11			4.00		9.33	17.33
Regulate prices of farm inputs	4.89	1.33				6.67	21.33
Provide good quality seeds/planting materials	3.11	6.67	1.33	2.67	1.33	6.67	
Intensify government research and extension services for tomato farmers	1.33	1.33		1.33	4.00	1.33	
Improve irrigation services	0.89	1.33	2.67	1.33			
Others ^{1/}	8.67	10.67	13.33	14.67	2.67	8.00	2.67

DATA COMPARISON

2017 SCR TOMATO vs. 2017 CSD DATA



Production per Hectare





DATA COMPARISON

2017 SCR TOMATO vs. 2016-2017 PSD DATA

Price per Kilogram



Province	2017 SCR TOMATO		Price Statistics Division*
	Cost per KG	Gross Returns per KG	Farmgate Price
Ilocos Norte	2.85	5.43	17.42
Ilocos Sur	3.09	5.40	14.49
Iloilo	7.21	12.20	19.25
Cebu	9.76	16.66	23.02
Bukidnon	8.67	16.15	16.68
Misamis Oriental	9.82	13.59	13.31

*September 2016 – May 2017 Average Price (Luzon – Visayas Provinces)

*January – September 2017 Average Price (Mindanao Provinces)



DATA COMPARISON

2017 SCR TOMATO vs. 2016-2017 PSD DATA

Price per Kilogram



Province	2017 SCR TOMATO		Price Statistics Division	
	Peak Harvest Month*	Gross Returns per KG	Least Farmgate Price	Reference Month
Ilocos Norte	2017 April	5.43	6.86	2017 March
Ilocos Sur	2017 April	5.40	5.82	2017 March
Iloilo	2017 April - May	12.20	13.12	2017 May
Cebu	2017 May	16.66	16.58	2017 April
Bukidnon	2017 Jul. - Aug.	16.15	16.90	2017 July
Misamis Oriental	2017 Jun. – Jul.	13.59	13.95	2017 April

*Based on the percentage of farmers reporting on the month of harvest.

DATA COMPARISON

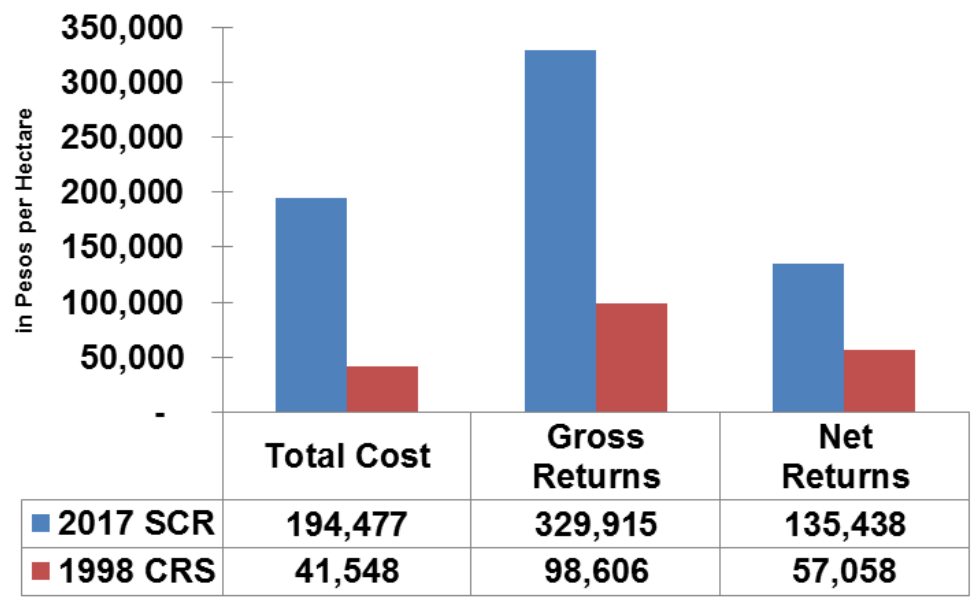
2017 SCR TOMATO vs. 1998 CRS TOMATO

Coverage

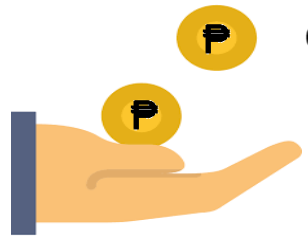
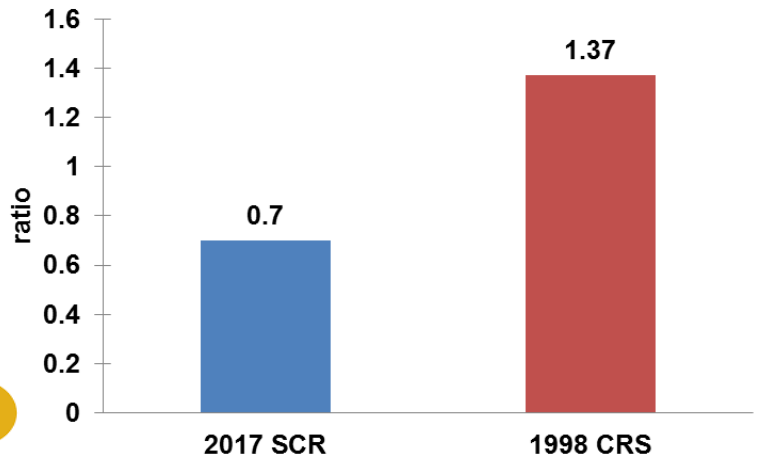
2017 SCR TOMATO	1998 CRS TOMATO
Ilocos Norte	Ilocos Norte
Ilocos Sur	Pangasinan
Iloilo	Nueva Ecija
Cebu	Iloilo
Bukidnon	Bukidnon
Misamis Oriental	Misamis Oriental

DATA COMPARISON

2017 SCR TOMATO vs. 1998 CRS TOMATO



Net Profit-Cost Ratio

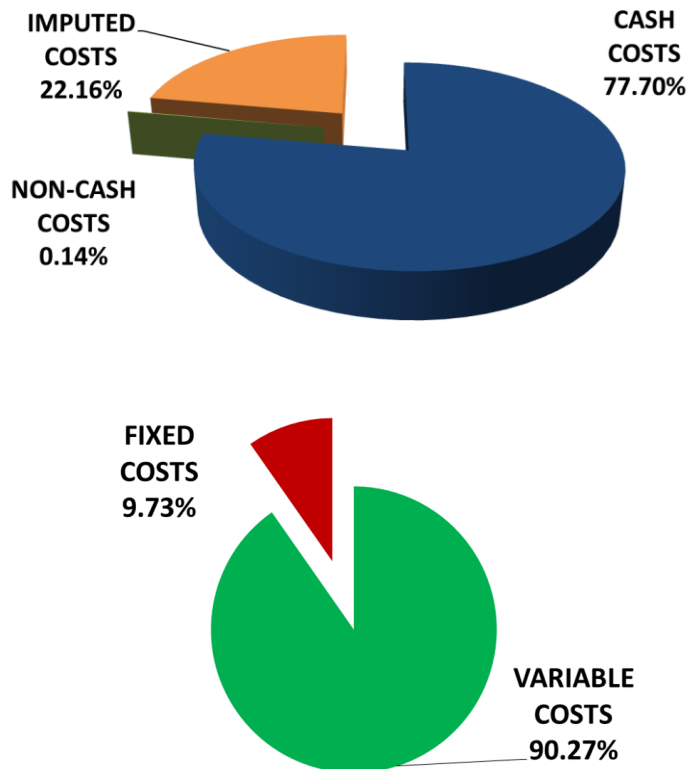




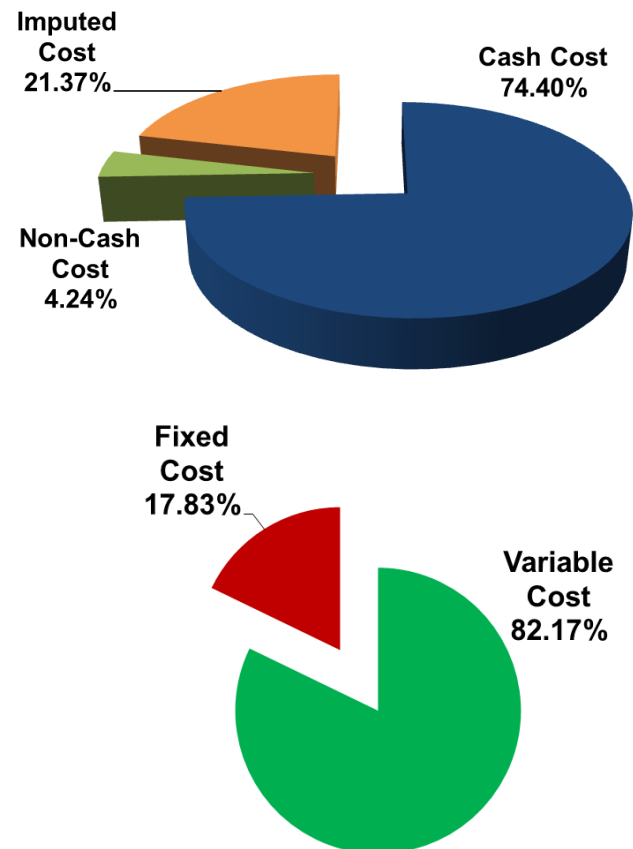
DATA COMPARISON

2017 SCR TOMATO vs. 1998 CRS TOMATO

2017 SCR Tomato



1998 CRS Tomato



DATA COMPARISON

Factors of Production	2017 SCR Tomato	1998 CRS Tomato	Study 1	Study 2	Study 3
AREA HARVESTED (Ha)	0.51	0.99	--	--	
SEEDS (Kg/Ha)	0.210	0.390	0.100	0.400	0.250
SOLID FERTILIZER (Kg/Ha)	3,484.990	2,938.050	--	--	--
LIQUID FERTILIZER (L/Ha)	1.630	2.590	--	--	--
SOLID PESTICIDES (Kg/Ha)	39.420	17.600	--	--	--
LIQUID PESTICIDES (L/Ha)	13.500	8.210	--	--	--
LABOR (Mandays/Ha)	252.810	134.070	--	--	271*

Study 1: Growing Tomatoes in the Philippines (<https://www.scribd.com/doc/101615157/Growing-Tomatoes-in-the-Philippines>)

Study 2: Tomato Production Guide (<https://www.pressreader.com/philippines/agriculture/20151201/282492887630765>)

Study 3: Tomato Production Guide (http://bpi.da.gov.ph/bpi/images/Production_guide/pdf/PRODUCTIONGUIDE-TOMATO.pdf)

* Includes seedling preparation, transplanting, field maintenance, rouging, hauling/harvesting, seed cleaning/drying, sorting, and seed treatment

Thank You!



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