

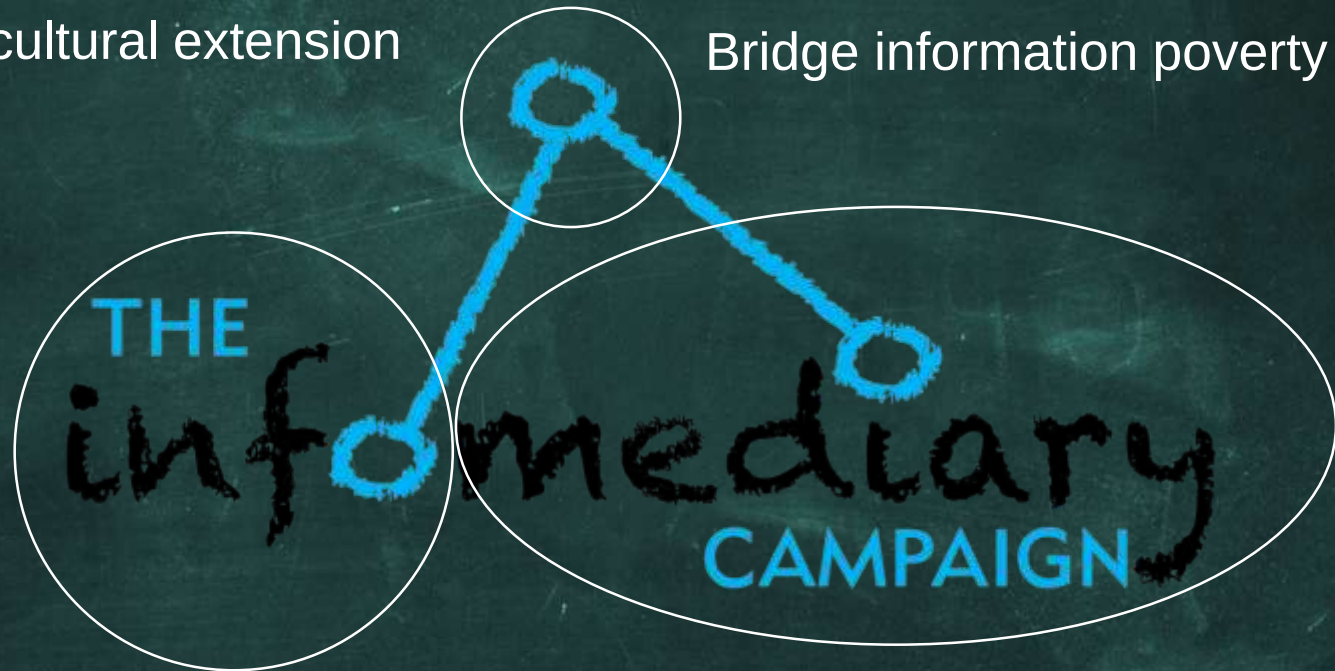
Are Youngsters Agri – Inclined? Positive Answers from Infomediary Campaign



Jaime A. Manalo IV | Rommel T. Hallares | Jennifer D. Villaflor
Development Communication Division

School as nucleus of
agricultural extension

Bridge information poverty



Information and mediation

SINCE

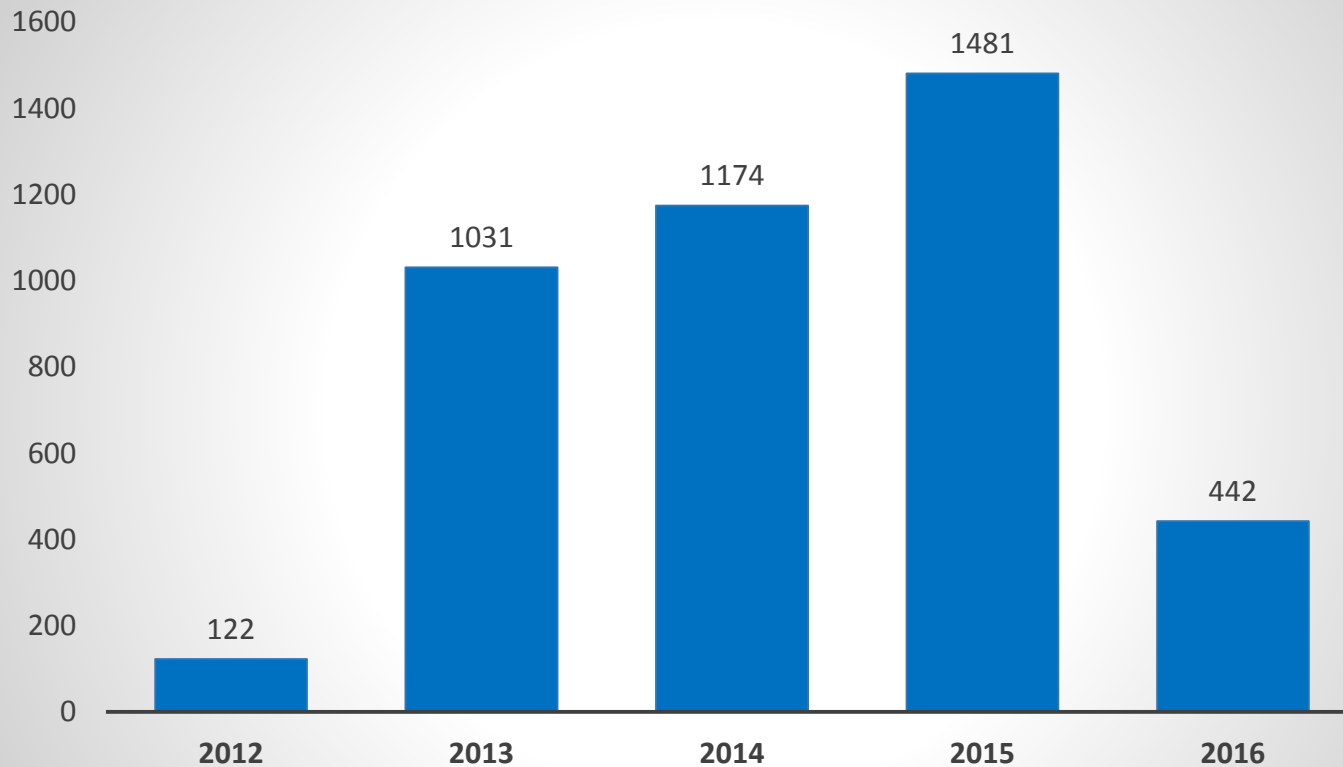
2012

Methodology

- Content analysis (text messages sent by the infomediaries from May 2012 to June 2016)
- $n = 4250$
- Data will be presented using graphs and charts

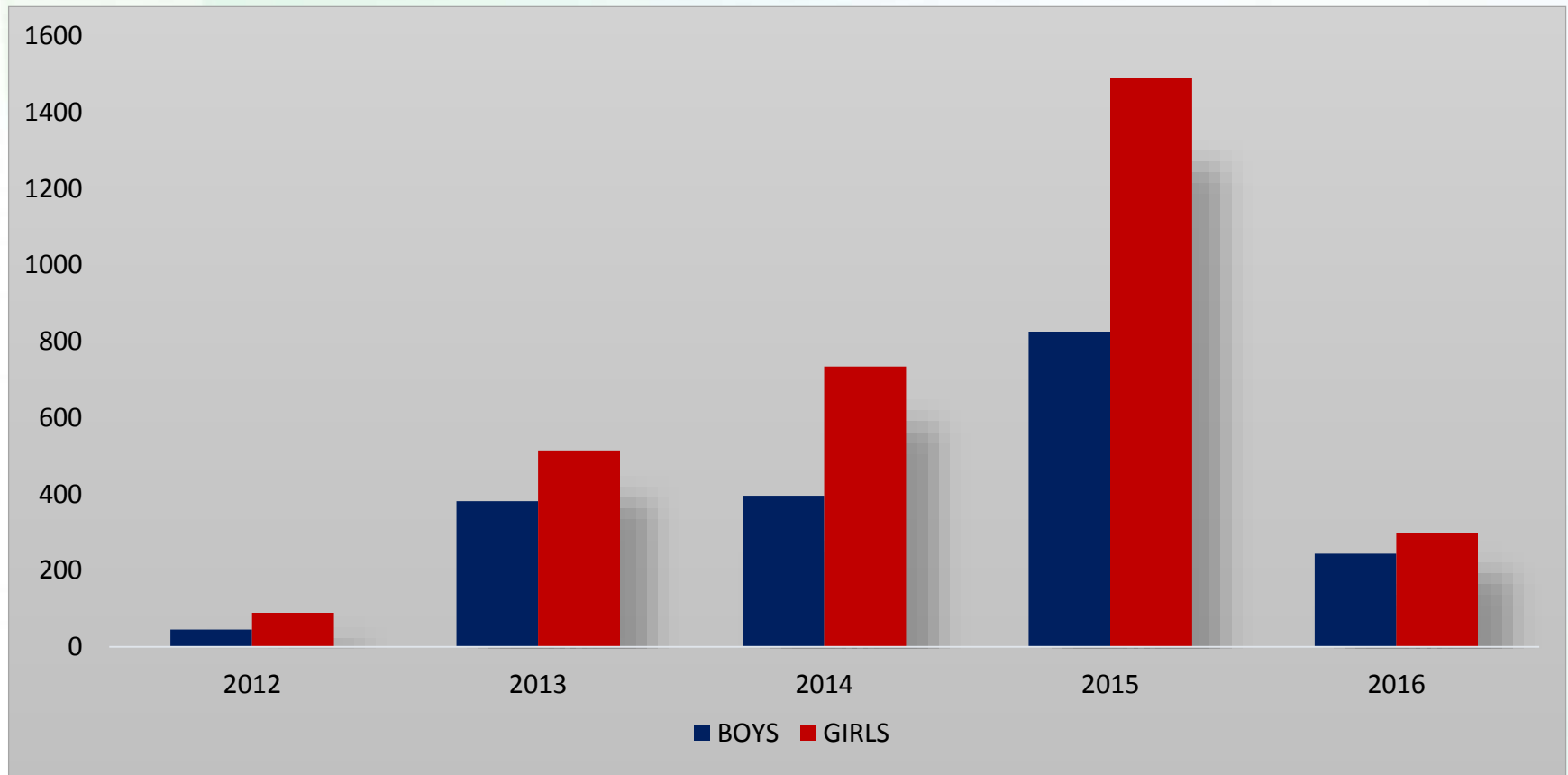


Registration per Year



4250 registered infomediary students

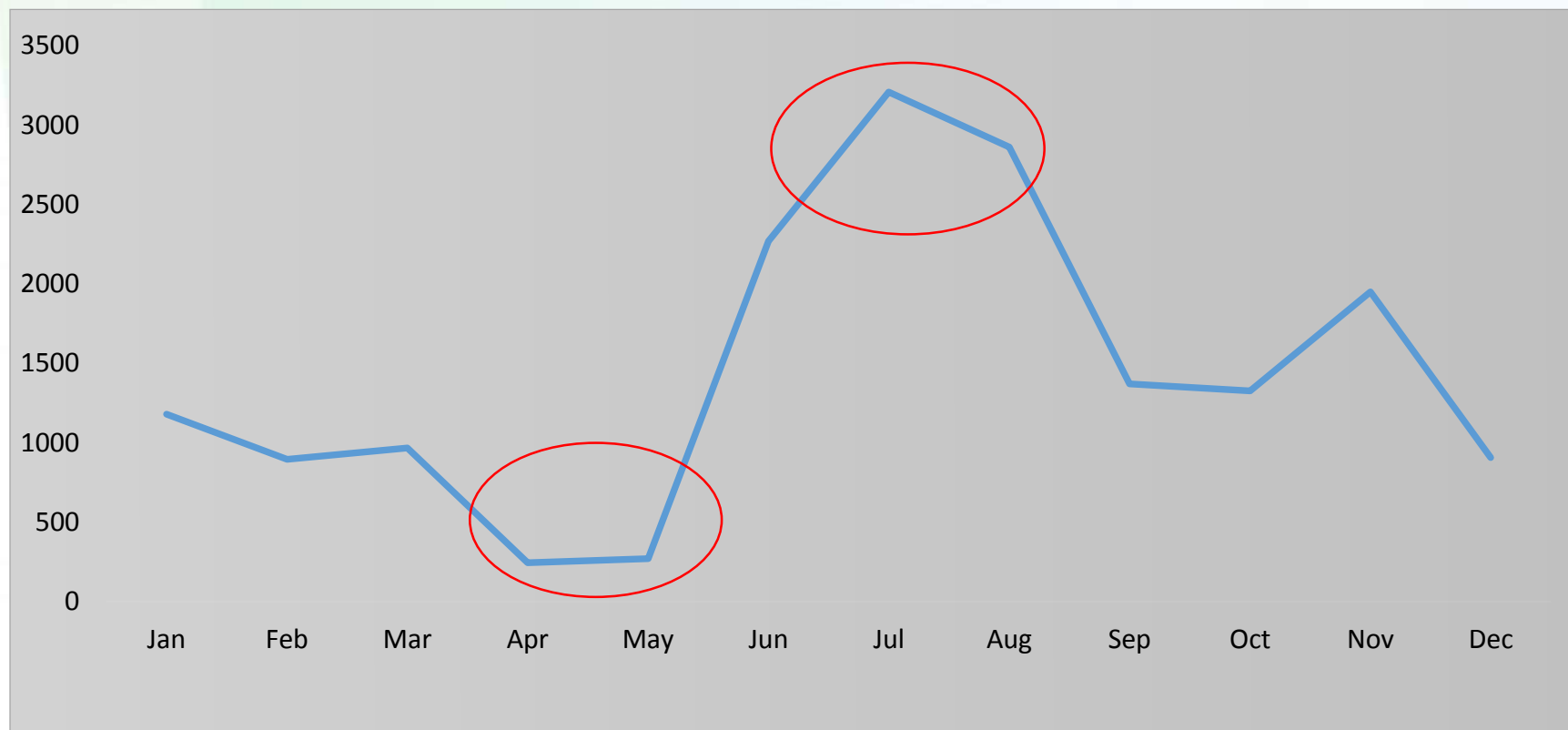
Boys vs Girls Texting



37.7% are boys

62.3% are girls

SMS Received per Month



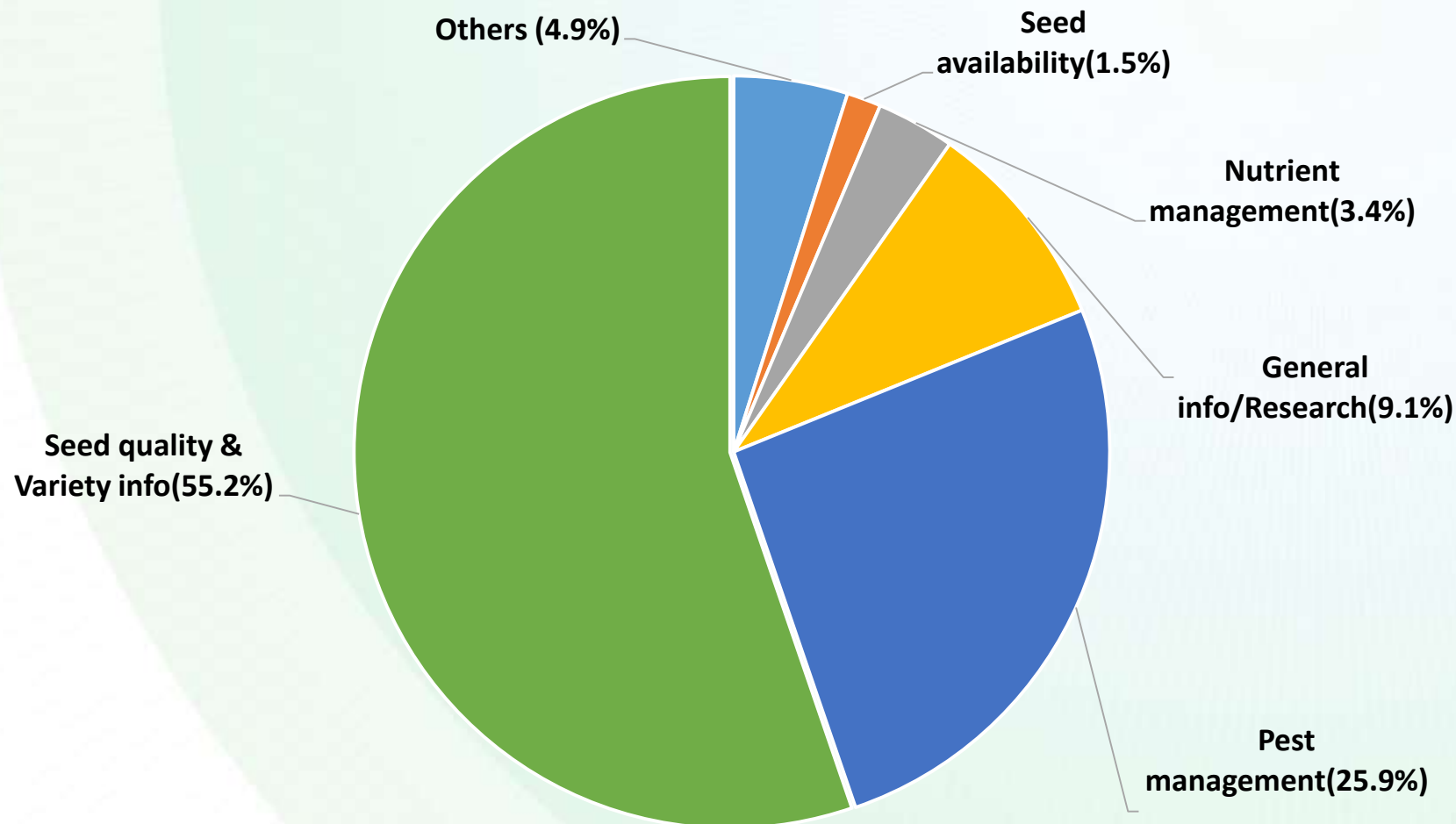
349 Average SMS per month

Top 10 Provinces

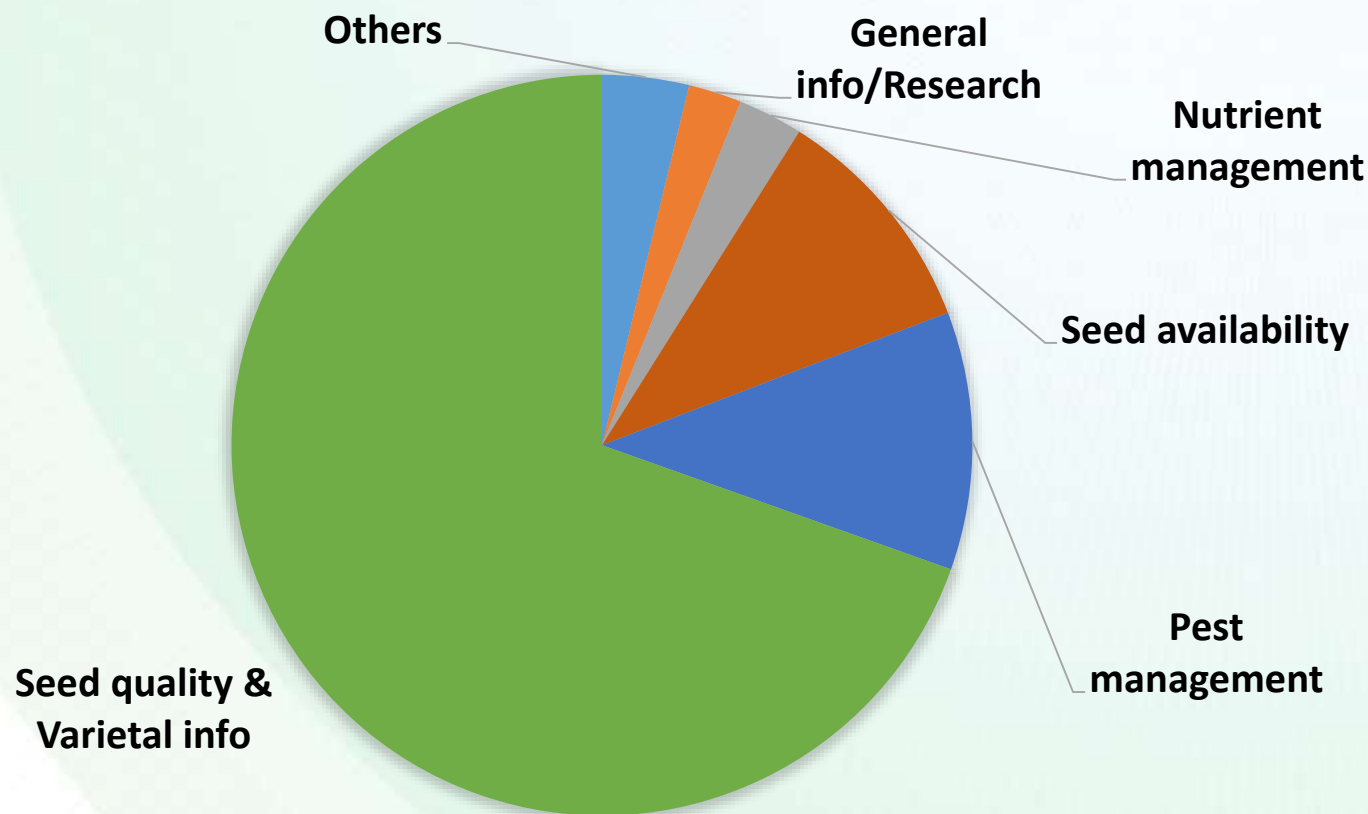


Most texters came from rainfed areas

Top Queries of Infomediary



Farmer Queries 2015



Farmers vs Infomediaries

Infomediaries

TOP 5 QUERIES

- ❖ Seeds/ Varietal info
- ❖ Pest Management
- ❖ General information
- ❖ Nutrient Management
- ❖ Crop establishment

Farmers

TOP 5 QUERIES

- ❖ Seeds/ Varietal info
- ❖ Pest Management
- ❖ Seed Availability
- ❖ Nutrient Management
- ❖ General information

Time SMS Received



Conclusions

- Text messages sent by the students are comparable with those by the farmers
- Teachers' intervention is central in pushing the students to text the PhilRice Text Center
- Students send highly sensible agri text messages



Information in ink: The relevance of PhilRice knowledge products in print

MGLayaoen, CAFrediles, MGMNidoy, JGSSarol, JCBerto, JDVillafior

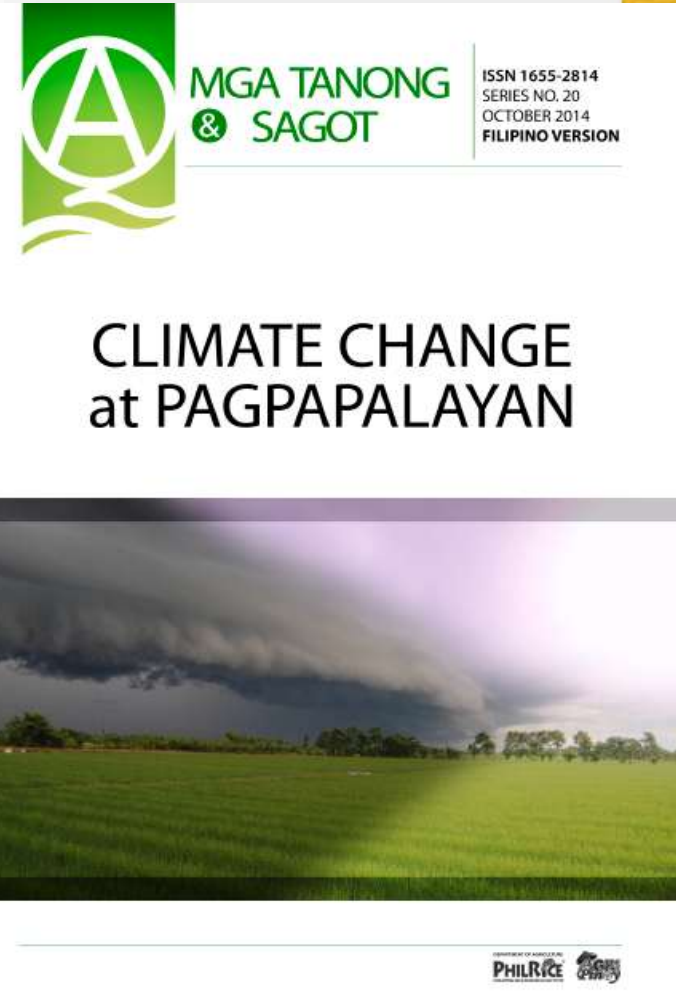
Main Objective

To assess the usefulness of
PhilRice knowledge products
print

Specific

Objectives

- To develop and adopt an evaluation tool for the improvement of PhilRice knowledge products
- To determine the usefulness and relevance of PhilRice knowledge products and services
- To come up with recommendations for the improvement of knowledge products



Methodology



Aurora



Leyte



Saranggan

Parameters

- Comprehensiveness of content
- Understandability
- Attractiveness and readability
- Value to rice production
- Sensitivity to gender and cultural norms
- Other areas for improvement

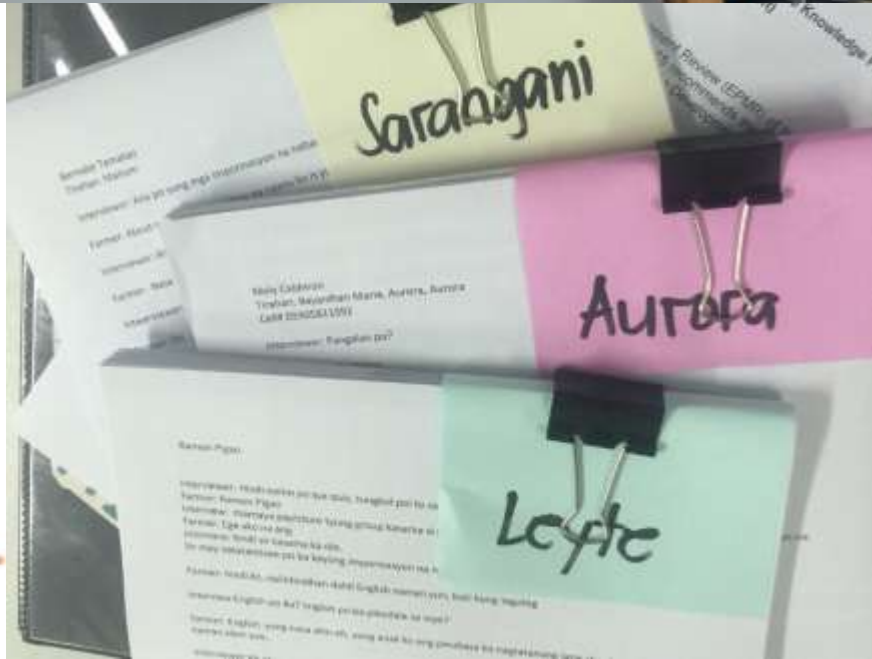
Components and Deliverables

- **Component 1:** Development of an evaluation mechanism for PhilRice knowledge products
- **Output:** Evaluation mechanism/protocol for PhilRice knowledge products

Components and Deliverables

- **Component 2:** Documentation, compilation, and analysis of users' feedback on PhilRice knowledge products
- **Output:** Users' feedback report

Writeshop



Components and Deliverables

- **Component 3:** Identification and application of key areas for improvement
- **Outputs:** (1) Recommendations for key areas for improvement; (2) Improved knowledge product on climate change and rice production

Results

- Farmers still value information from printed KPs.
- Content is comprehensive but requires some updating in terms of format and data.
- Farmers consider the materials a useful ally in rice farming, especially in the advent of climate extremes.

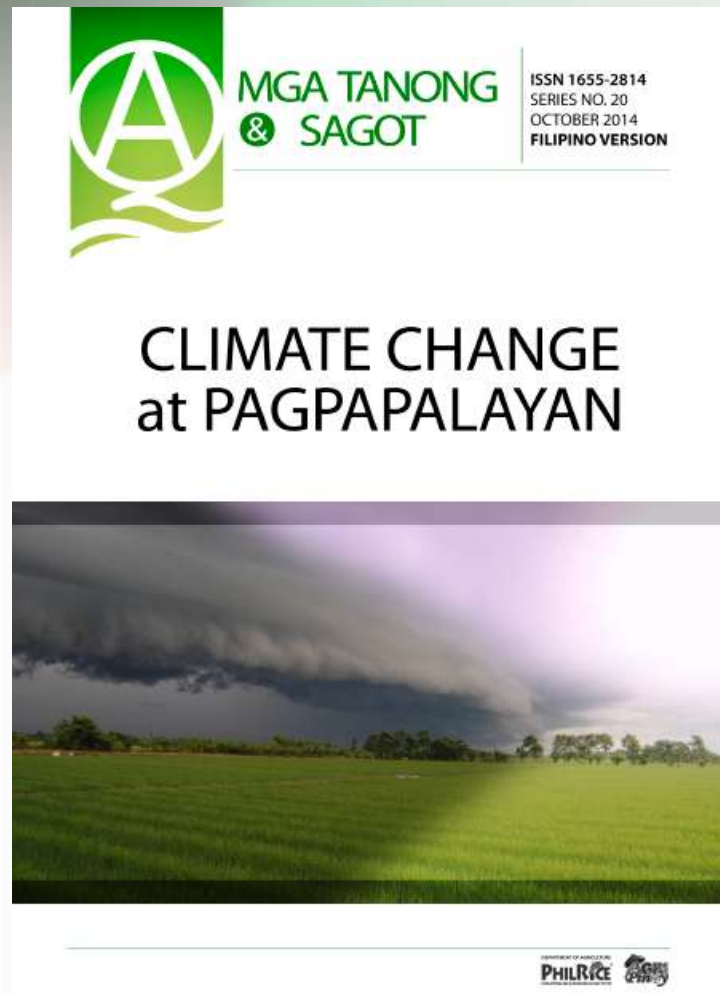
Recommendations

Comprehensiveness of content

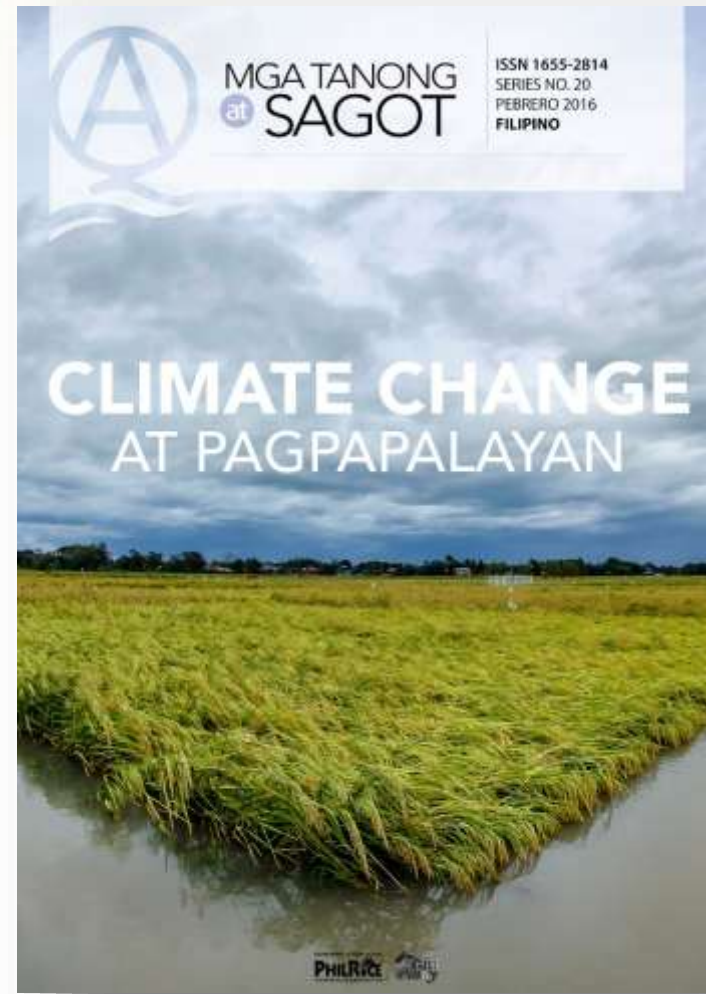
Understandability

Readability/Attractiveness

Value to rice production



Oct. 2014



Mar. 2016

For PhilRice KP development

- Ensure quality and usefulness of KPs through evaluation
- Info dissemination should be location-specific
- Further studies on printed KPs vs. other media
- Mechanism to determine when and how farmers act on certain information
- Bank on events as venue for dissemination
- Formation of a monitoring and evaluation team

PHILRICE TEXT CENTER

09209111398

www.pinoyrice.com

**THANK YOU FOR
LISTENING!**

Evaluating the 'perceived' effectiveness of Pinoy Rice

Hanah Hazel Mavi B. Manalo
September 8, 2016



INTRODUCTION

PINOY RICE KNOWLEDGE BANK

one-stop source of rice
and rice-based information online



 Low website visit
Improve service

OBJECTIVES

relevance

attractiveness ease of use
comprehension self-involvement

acceptance



METHODOLOGY

- Purposive sampling
- Atomistic theoretical approach
- 23 AEWs, teachers, students, researchers who accessed the website for the first time
- 15 to 30-min website exposure
- Survey questionnaire (with close and open-ended questions)
- May 2016
- Frequencies, percentages, and themes



Relevance

- ✓ Farmers and extension workers: intended users
- ✓ List of rice varieties: the most remembered and helpful feature of the website
- ✓ Videos and rice varieties: most liked features of Pinoy Rice
- ✓ Website's rating was 5 and 4.

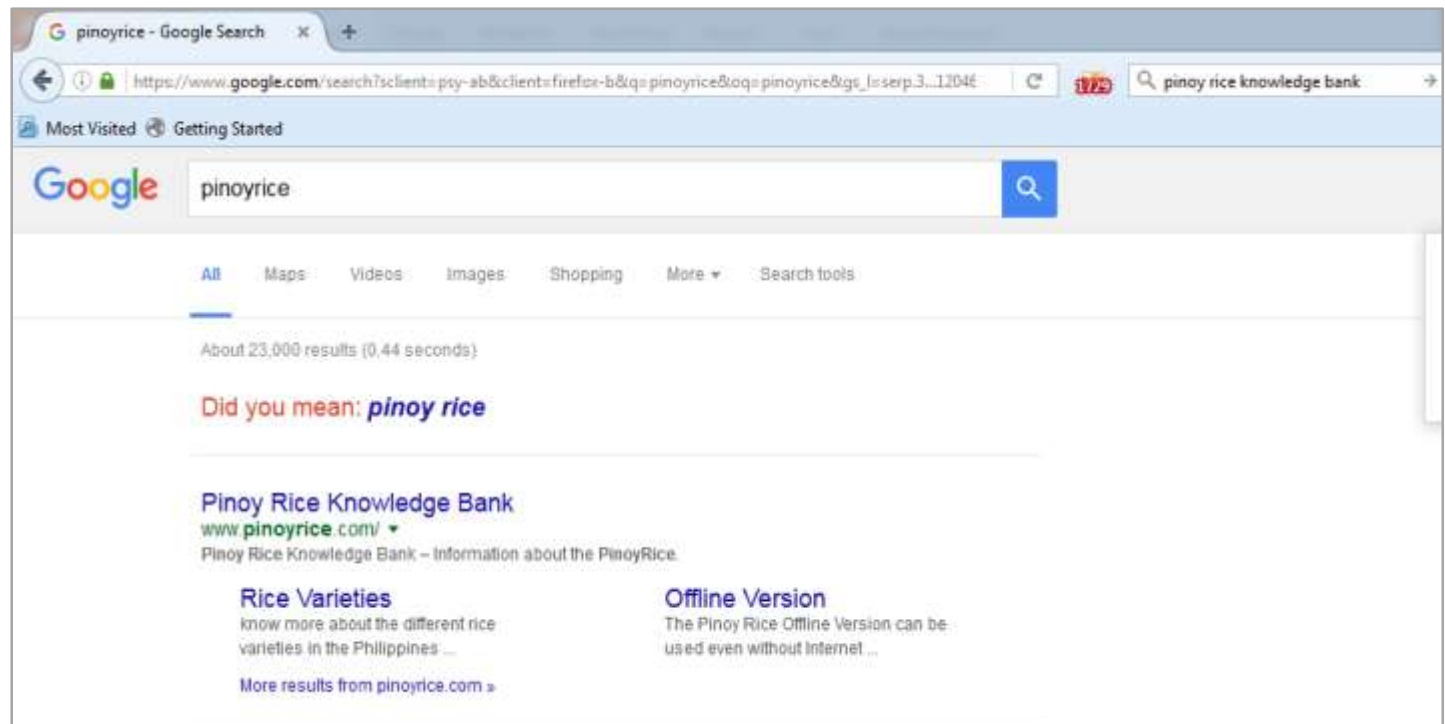
Website's rating shows the extent of the website's usefulness to their lives with 5 as the highest



DISCUSSION

Ease of Use

- ✓ Easy to search on the web
- ✓ Easy information search within the website



Comprehension

- ✓ Adequate information
- ✓ Up-to-date information
- ✓ Words are easy to understand

Acceptance

- ✓ No element in the website that was against their beliefs, women, and children
- ✓ No word or photo that was offensive and unreal or unbelievable



Attractiveness

Positive perception on the following:

- ✓ Presentation of information
- ✓ Font style, color, and size
- ✓ Photos used
- ✓ Language used
- ✓ Length of texts

Website found interesting resulting in the navigation of the whole website



Self-involvement

- ✓ Look for information
- ✓ Use the rice and rice-based farming technologies
- ✓ Access information for others such as the farmers

Users' Suggestions to improve Pinoy Rice

- ✓ Regular updating of website
- ✓ More promotional strategies
- ✓ Farmers' info needs assessment



CONCLUSION

Pinoy Rice gives the following perceptions:

- ✓ user-friendly
- ✓ attractive
- ✓ acceptable
- ✓ understandable
- ✓ useful and relevant
- ✓ has adequate, updated, and accurate rice and rice-based farming information



RECOMMENDATION

- ✓ Increase promotional effectiveness
- ✓ Regular promotional activities

No. of sessions/visits per month

MONTH	SESSIONS
JAN	1,524
FEB	2,632
MAR	2,652
APR	2,147
MAY	2,558
JUN	2,964
JUL	3,062
AUG	4,205
TOTAL	21,743

→ 2,681



RECOMMENDATION

- ✓ Cropping-calendar-based uploading and sharing on PhilRice's Facebook Fan Page and sending through PhilRice Text Center
- ✓ Conduct of KSL activity about PRKB outside PhilRice
- ✓ Distribution of posters to LGUs, branch stations, agricultural national high schools, SUCs
- ✓ Tapping campaigns to promote PRKB (Infomediary, RTM, Riceponsable, iPad, even those conducted by the research divisions)
- ✓ Inclusion of Ad for the issue of newsletters



Department of Agriculture

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rice.matters



Produce More with Sorjan

Rizal G. Corales, Jesusa M. Rivera, Isagani P. Pineda
and Patrick Dale O. Roman



Rationale

- Sorjan composed of series of alternate raised beds and sinks usually practice in swampy areas
- Rice is planted on the sinks and dryland crops are concurrently grown on the raised beds.
- Fish are grown along the sink and trellis vegetables above the sink.
- The sorjan production system can enrich the farmers diet by producing more at the same time.



Objectives

To evaluate the potential of Sorjan production system in increasing productivity and income in the irrigated rice environment.



Methodology

Sorjan Production Model

- ❖ Area: 2000 m²
- ❖ Raised bed: 1.5-3.0m wide
- ❖ Sink: 3m wide, 30 cm deep
- ❖ Pond refuge: 1.5m wide, 1.2 m deep
- ❖ Bunds: 0.75-1.0 m wide



Methodology

Crops Planted

- ❖ **Cereals:** Rice and Corn
- ❖ **Gabi**
- ❖ **Salad and leafy vegetables:** lettuce, kale, pechay, mustard, upland kangkong, spinach, jute, sweet potato
- ❖ **Solanaceous:** eggplant, pepper, tomato
- ❖ **Cucurbits:** Ampalaya, patola, kalabasa and upo
- ❖ **Legumes:** bush bean, cowpea, string beans



Results

Yield & Income of dryland crops (90 m² bed)



Crops	Yield (Kg)	Price (Php)	Cycle/yr	Income/yr Php
Upland Kangkong	52 - 65.55	20	10	13,000
Pechay	55	20	10	11,000
Lettuce	55.7 – 67.75	120	3	21,600
Eggplant	132.6	30	2	7,000
Pepper	187	30	2	11,200
Tomato	127	20	2	5,000
Corn	79	25	3	5,000



Results

Yield & income per year (135m² sink area)

Crops	Yield (kg)	Income
Rice	67.5	1,212
Gabi	400	8,000



Conclusion and Recommendations

- ❑ Sorjan production system assures the family with more stable food and income
- ❑ It is a good adaption strategy to climate change because the pond refuge and sink can be used as water harvesting and storage mechanism in drought-prone communities while the raised beds has the possibility of growing dryland crops in flood-prone communities.
- ❑ Recommended for further evaluation of some unstable data especially fish and other high value crops

HAPPY FARMING!



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GASIFICATION PROPERTIES OF CHOPPED RICE STRAW

by

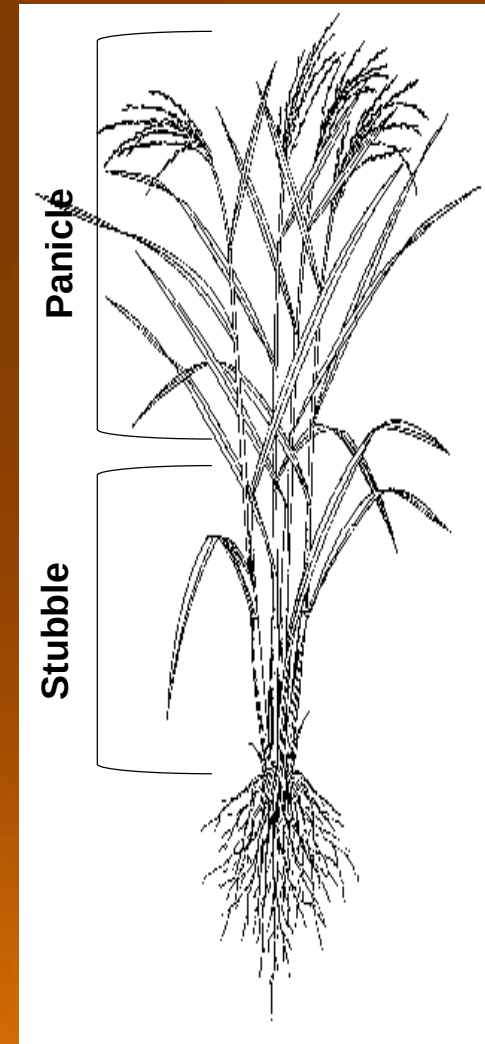
Alexis T. Belonio, Katherine C. Villota, Phoebe R. Castillo, and Manuel Jose C. Regalado
Philippine Rice Research Institute - Central Experiment Station
Science City of Munoz, Nueva Ecija



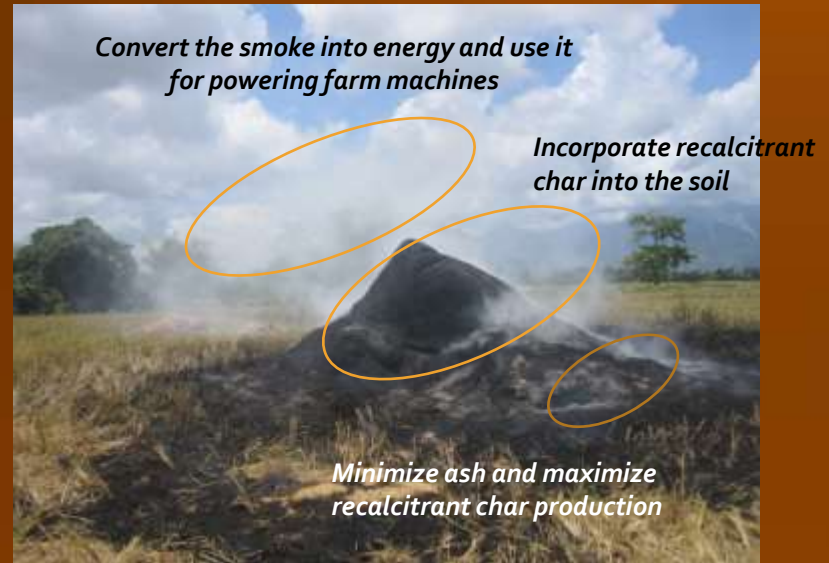
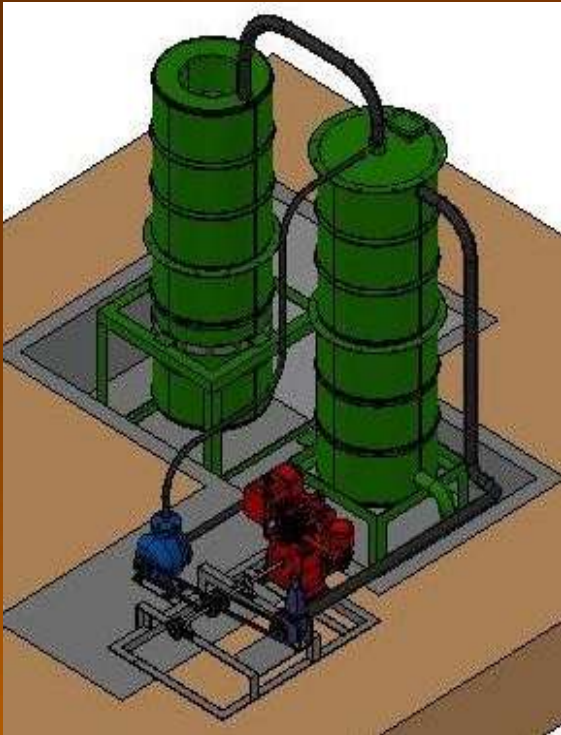
Paper presented during the 29th National Rice R&D Conference held at PhilRice, Science City of Munoz, Nueva Ecija, Philippines on September 7-8, 2016.

INTRODUCTION

- Rice straws (RS) form the largest portion of rice biomass.
- The amount of RS is equivalent to the weight of paddy harvested and is 5 times more than rice husks.
- Annually, there are about 16.2 million metric tons of RS available in the country. It contains high amount of potential energy which can be tapped to produce thermal, mechanical, and electrical powers.
- Large percentage of RS is still left underutilized.
- They are usually burned and left in the field to decay emitting lots of GHG.



- Converting RS into energy to fuel internal combustion engine and its by-product into biochar is an alternative solution to address the problem depleting supply accompanied by erratic prices of fossil fuel. Likewise, helping in the reduction of environmental pollution and GHG emission in the process (Belonio, 2016).
- Through gasification, RS can be used to produce fuel to power engines while, at the same time, produces biochar, which can be used in improving soil condition and in sequestering carbon.



Burning of Rice Straw and Leaving them in the Field to Decay



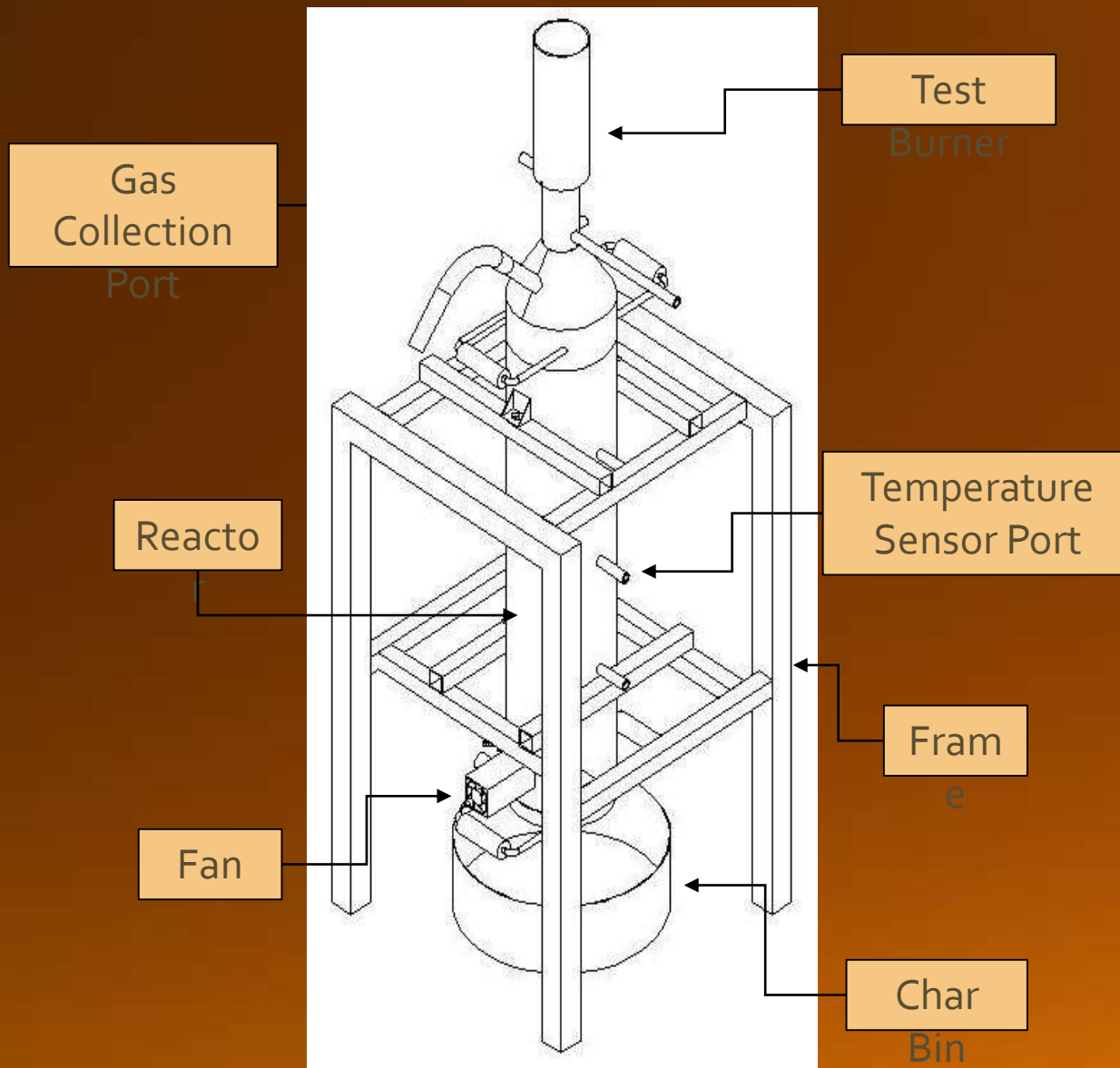
The Practice of Burning Rice Straw

OBJECTIVES

- General:
 - To determine the gasification properties of chopped rice straw.
- Specific:
 - To compare the gasification properties of rice straw obtained from threshed panicles and from stubbles at minimum and maximum fan setting; and
 - To compare the chemical compositions and heating value of gas produced from the two samples of chopped rice straw at minimum and maximum fan setting.

METHODOLOGY

- Fabrication of Test Rig – 15cm-Ø x 50cm-H fixed-bed, down-draft reactor
- Sample Preparation – manually chopped rice straw (threshed panicles and stubbles), average moisture content – 13 to 15%
- Instrument Used – digital weighing scale, type-K thermocouple wire and digital thermometer, thermo-anemometer, pitot-tube manometer, and syngas analyzer.
- Data Gathering - weight of samples before and after gasification, temperatures of the fuel bed at the reactor and of the gas, airflow and pressure draft measurements, and gas composition & heating value.
- Properties - air/fuel ratio, equivalence ratio, superficial gas velocity, fire zone rate, specific pressure draft, bulk density, percentage char produced, etc.
- Gas Composition and Energy Content – CO, CH₄, H₂, CO₂, C_nH_m, O₂, also lower and higher heating value.



Laboratory Test Rig



(b) Threshed Panicles



(a) Stubbles

Samples of Chopped Rice Straw Used in the Tests



EXTECH INSTRUMENTS HD350 Pitot Tube
Anemometer & Manometer



EXTECH INSTRUMENTS SDL 350 Hot
Wire CFM Thermo-Anemometer



Type K Thermocouple Wire Sensors



GASBOARD-3100P Gas Analyzer



Digital Thermometers

Test Instruments Used



During Testing of Samples

RESULTS AND DISCUSSION

Gasification Properties of Chopped Rice Straw

	Threshed Panicles		Stubbles	
	Fan Setting		Fan Setting	
	Minimum	Maximum	Minimum	Maximum
Bulk Density, kg/m ³	44.7a	51.0a	57.0a	59.0a
Air-Fuel Ratio, kg air/kg fuel	0.56c	0.68bc	0.97ab	1.08a
Equivalence Ratio, dml	0.12c	0.14bc	0.21ab	0.23a
Superficial Gas Velocity, cm/sec	1.47b	1.86b	2.12b	3.32a
Specific Gasification Rate, kg/hr-m ²	117.3b	123.4ab	98.3c	138.2a
Specific Draft of Straw, mmH ₂ O/m	2.74b	2.86b	4.48b	9.40a
Fire Zone Rate, cm/min	2.66a	2.44ab	1.73b	2.41ab
Reactor Fuel Bed Temperature, °C	625a	735a	625a	738a
Gas Temperature, °C	204b	268ab	223ab	314a
Specific Power Output, kWt//m ²	22.02c	37.51b	47.04b	75.10a
Weight of Char produced, %	27.71a	14.33b	29.35a	24.18a

Means within row having the same letter are not significantly different at 5% level

Threshed Panicles



Stubbles



Testing for the Presence of Combustible Gases from Chopped Rice Straw

Char Obtained from Chopped Rice Straw During the Tests

Composition of Gas from Chopped Rice Straw

	Threshed Panicles		Stubbles	
	Fan Setting		Fan Setting	
	Minimum	Maximum	Minimum	Maximum
Carbon Monoxide (CO), %	6.08b	7.81ab	8.81a	8.88a
Methane (CH ₄), %	1.19b	1.58ab	1.81a	1.62ab
Hydrogen (H ₂), %	1.35c	2.94b	3.12b	4.11a
Carbon Dioxide (CO ₂), %	12.81a	13.15a	13.03a	12.00a
Hydro Carbon (C _n H _m), %	0.15ab	0.16ab	0.20a	0.10b
Oxygen (O ₂), %	5.12a	4.20a	3.54a	4.69a
Lower Heating Value, kcal/m ³	346b	470a	527a	535a
Higher Heating Value, kcal/m ³	362b	502a	564a	566a

Means within row having the same letter are not significantly different at 5% level

CONCLUSIONS

- Rice straw generally exhibits low bulk density characteristics. But, it can still be gasified to produce flammable gas that can be used for heating and/or fueling internal combustion engines.
- Chopped RS stubbles has more advantages over chopped rice straw obtained from threshed panicles in terms of gasification properties. Such properties include high airflow ratio, low fire zone rate, and high specific power output.
- Chopped RS stubbles is more advantageous than threshed panicles as a result of high CO, CH₄, and H₂ content and its high heating value.
- More char can be produced from chopped RS stubbles than from chopped RS threshed panicles.

RECOMMENDATIONS

- Determine the gasification properties of rice straw stubbles based on varying moisture content and maturity.
- Build a 30-cm test rig to further obtain information on the properties of chopped rice straw for use in a slightly bigger reactor.
- Design and build a chopping machine to produce more uniform and samples of chopped straw for experiment and field testing of gasifiers.



Local Government Units

AGRICULTURE AND FISHERIES

EXTENSION WORKERS

PROFILE

Rhea Verganzi Dones

Presentation Outline

Purpose/Objectives of the Study



AEWs Socio-Demographic Profiles



AEWs Competency/Capability Ratings



Recommendations



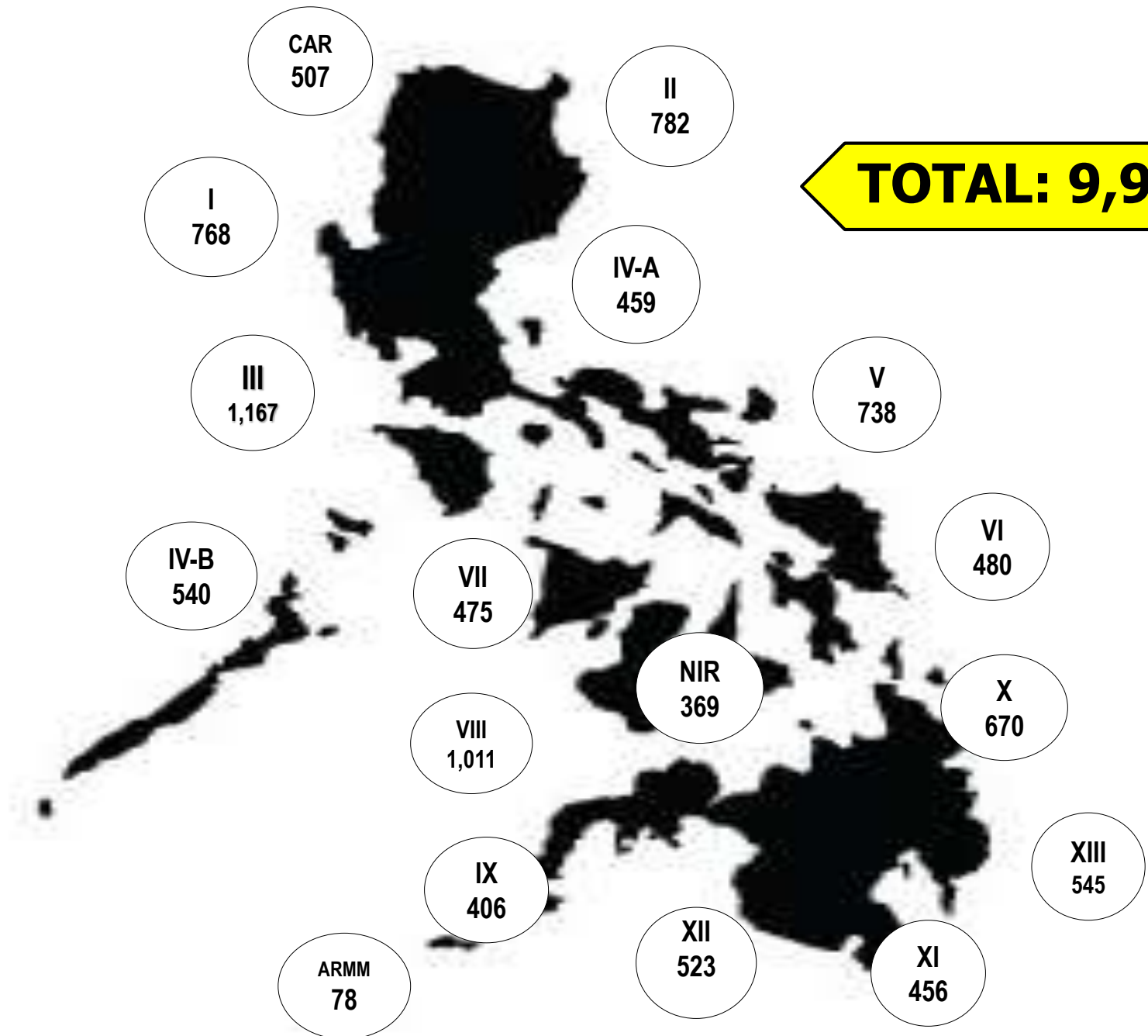


Purposes/objectives of the Study

- ☐ **Capture the total population of AEWs in the country**
- ☐ **Identify assistance needed by the AEWs in extension services delivery**
- ☐ **Formulate programs and projects for AEWs to help enhance their knowledge and capability in delivering quality extension services**
- ☐ **Update database of AEWs from previous years**

Geographical Breakdown

TOTAL: 9,977





Top Three (3) Regions with Highest Number of AEWs

Region III
1, 167



Region VIII
1, 011



Region II
780



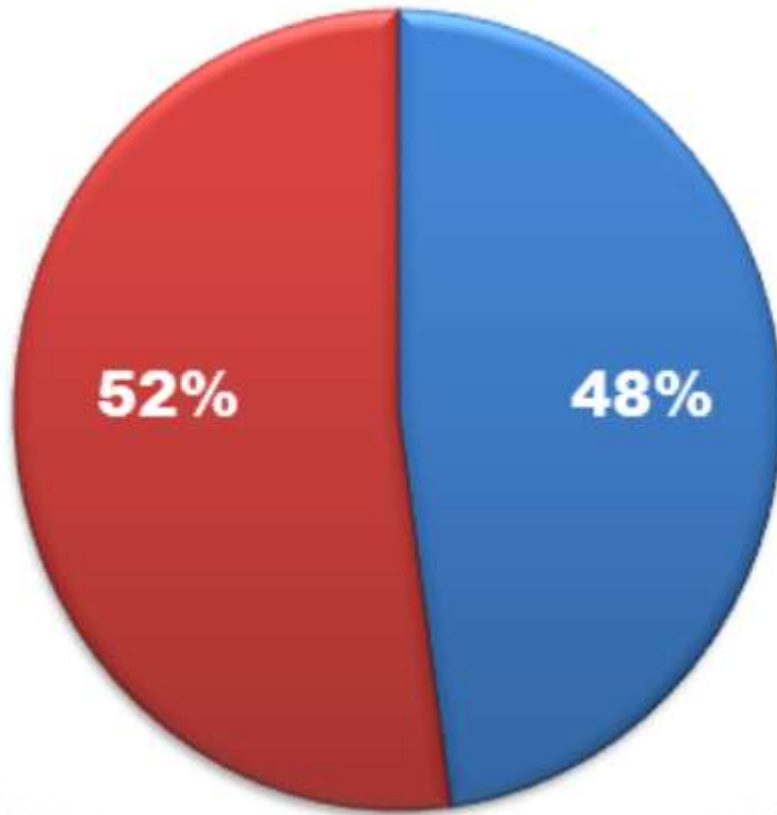


Distribution of AEWs by Sex

5,188



52%



48%



4,789



Summary of AEWs by Age by Region

Region	Youngest	Oldest	Average
CAR	23	65	49
I	21	65	48
II	22	65	50
III	24	65	51
IV A	23	65	49
IV B	23	64	48
V	22	65	49
VI	24	65	48
VII	23	64	49
VIII	23	65	50
IX	23	65	50
X	24	65	50
XI	23	64	48
XII	24	65	50
CARAGA	22	65	50

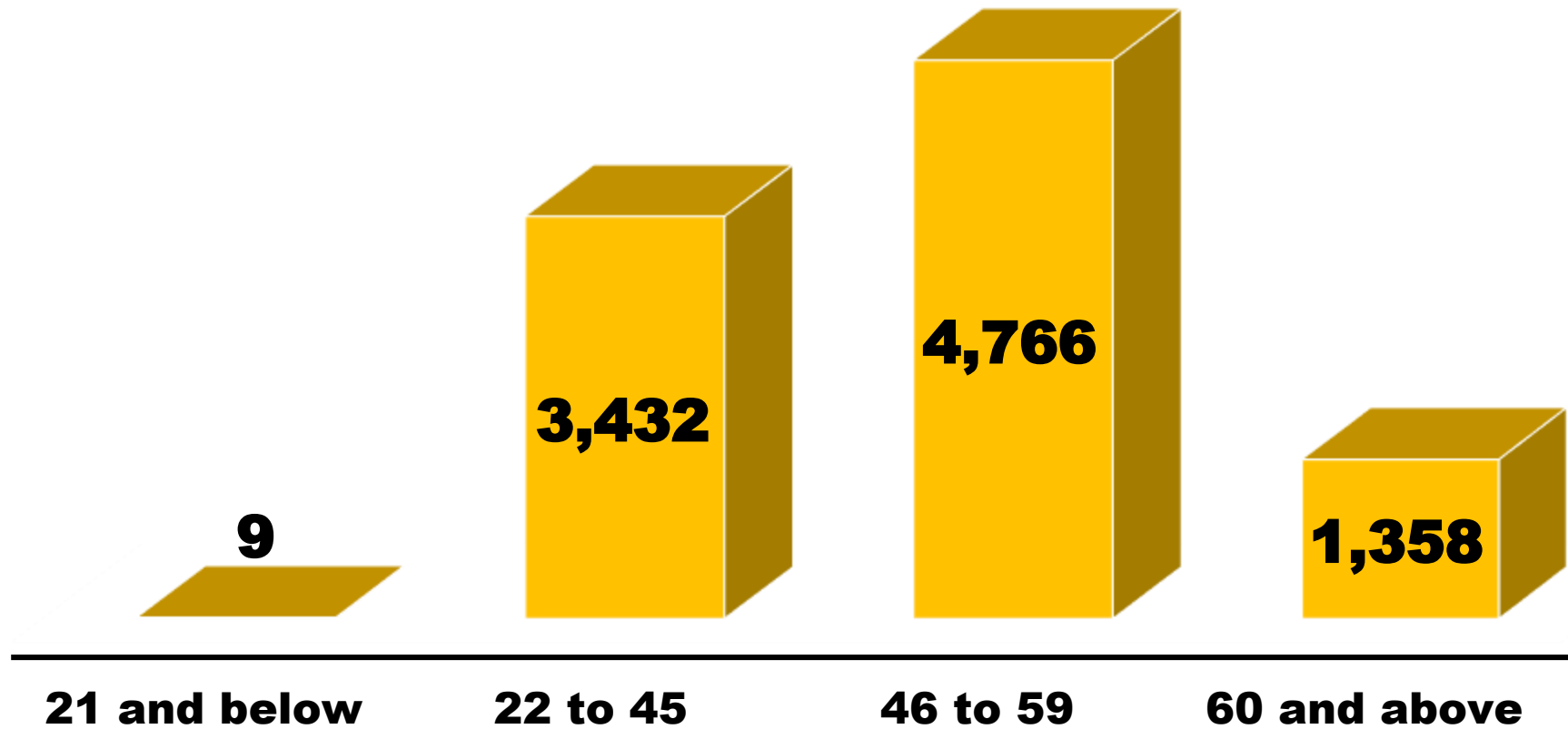
Youngest 21

Oldest 65

Average 49

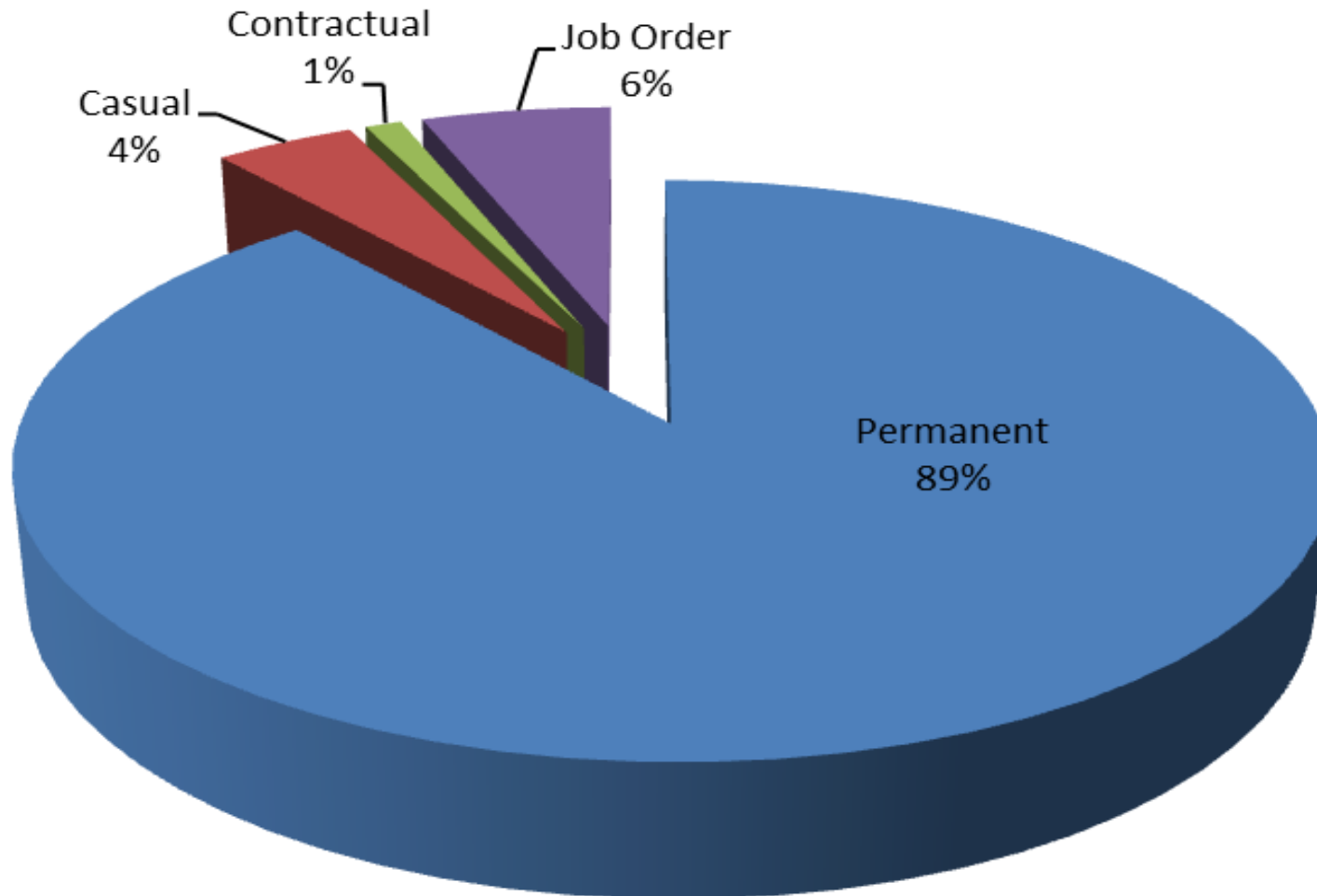


Summary of AEWs by Age Bracket





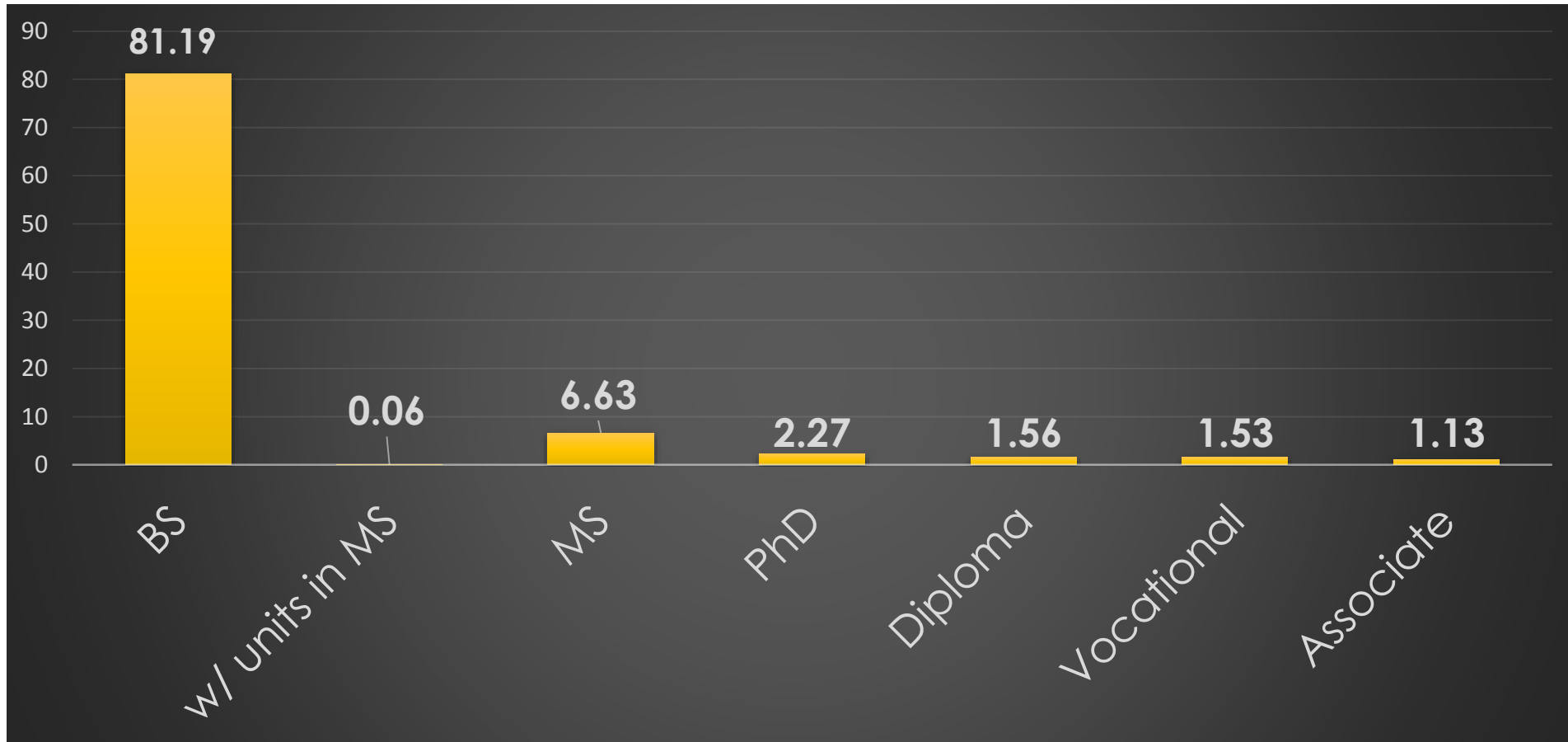
Distribution of AEWs by Appointment of Status

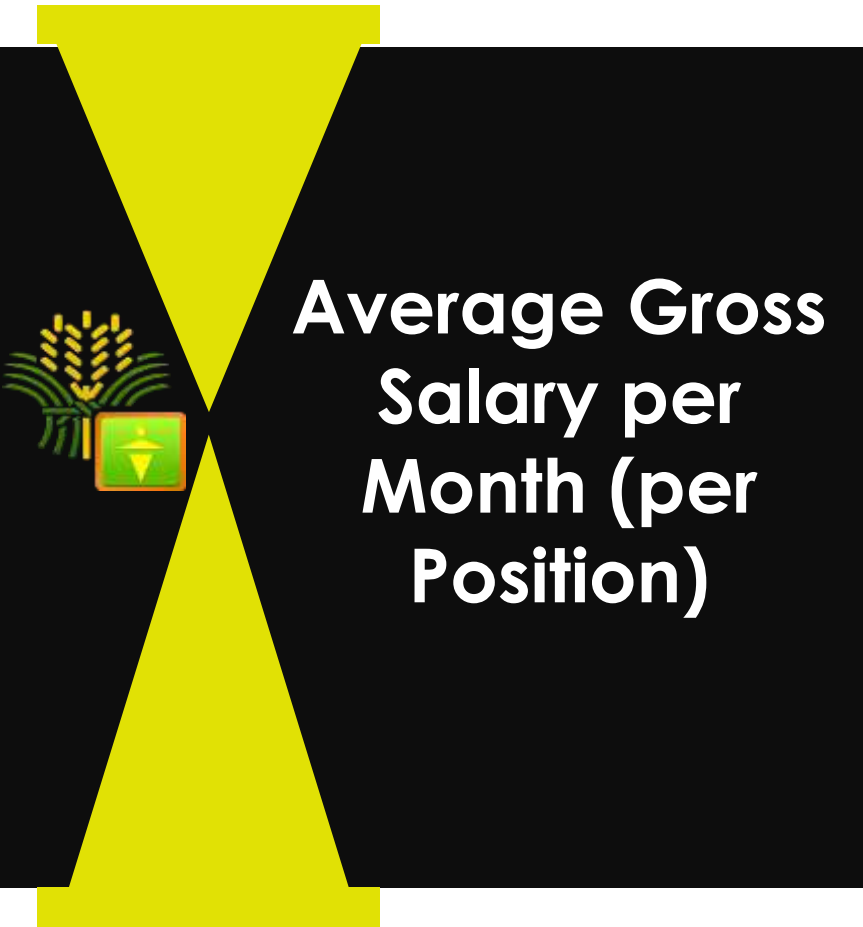


Permanent	8,880
Job Order	599
Casual	399
Contractual	99



Distribution of AEWs by Highest Educational Attainment





REGION	PA	CA	MA
CAR	57,752	-	31,737
I	49,750	45,153	37,137
II	43,668	34,156	35,794
III	61,962	42,904	38,209
IV-A	-	44,903	36,392
IV-B	64,413	38,997	35,400
V	52,225	35,100	34,296
VI	-	34,088	36,960
VII	40,228	40,279	31,265
VIII	40,754	38,523	31,103
IX	39,000	35,761	36,942
X	58,666	39,013	34,003
XI	-	-	36,458
XII	-	39,013	32,368
CARAGA	41,134		36,386
ARMM	54,500	48,357	26,246
NIR	-	39,127	35,640
AVERAGE	50,338	39,670	34,490

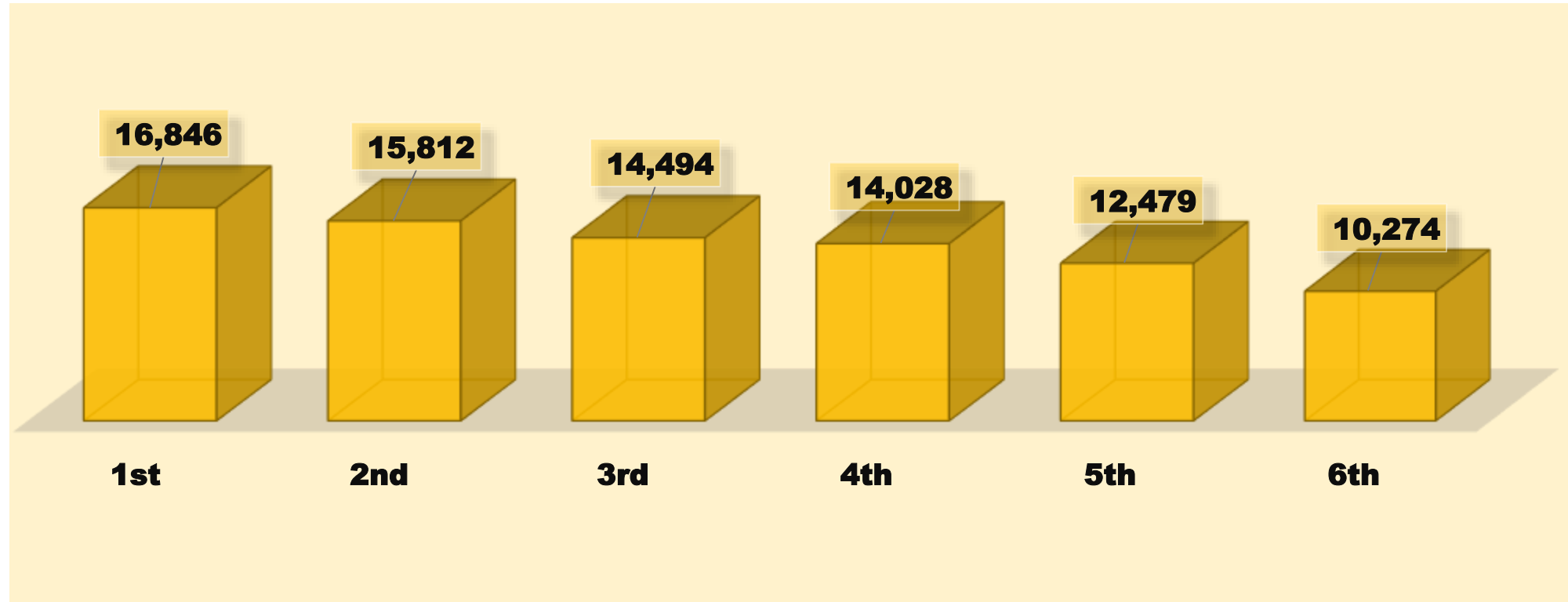
**Ave. salary of PA, MA ,and CA were based from the submitted data*

**Not all Provinces have submissions from OPAG and CA*



Average Salary of AEWs, PhP

(Agricultural Technologist/month per Municipal Class)

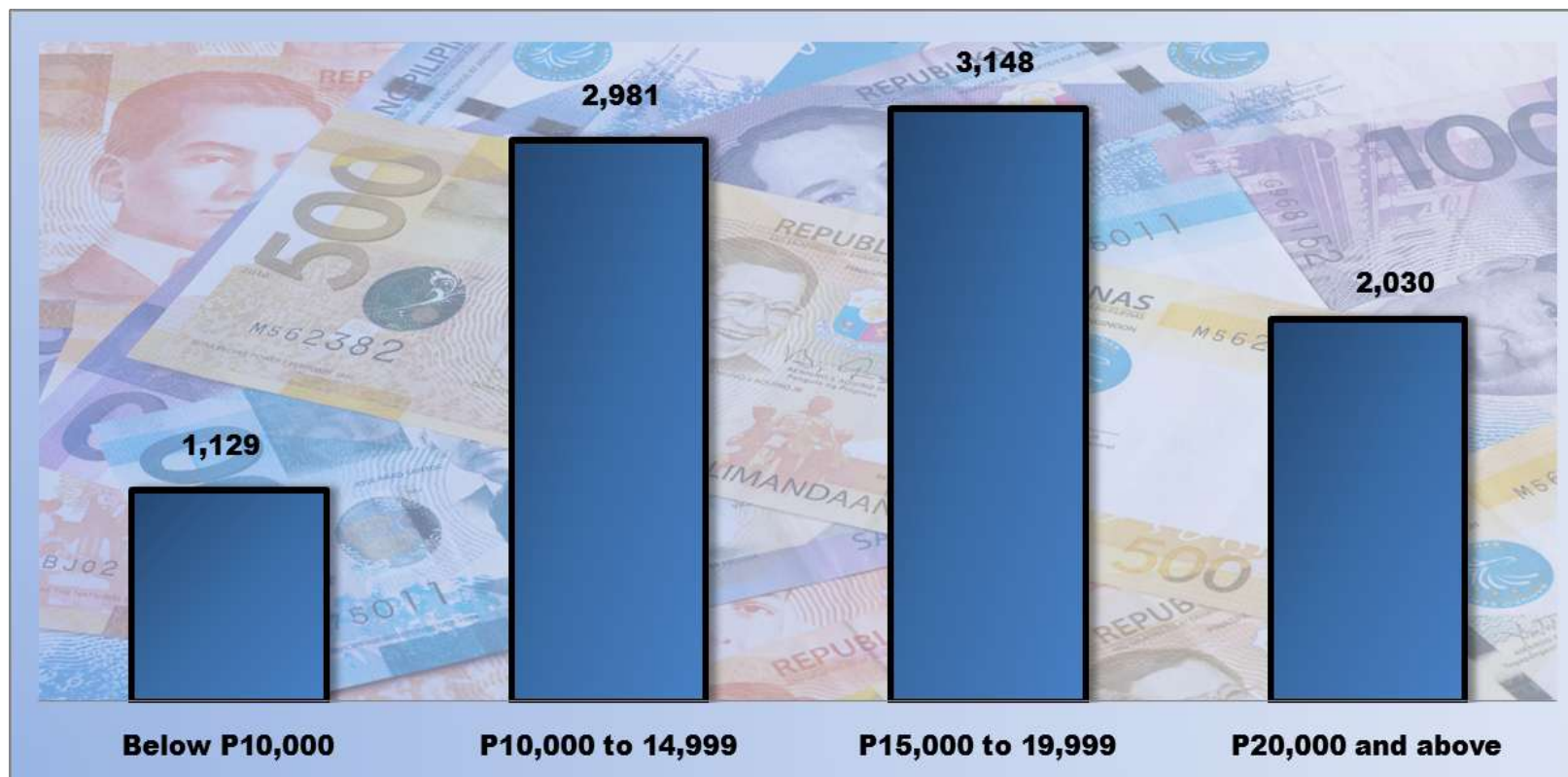


Note:

- Average salaries were derived from AT/AT I with permanent status of appointment and with appointment and with an average of 20-30 years in the service
- Those ATs that are designated or acting as MA are not included in the averaging



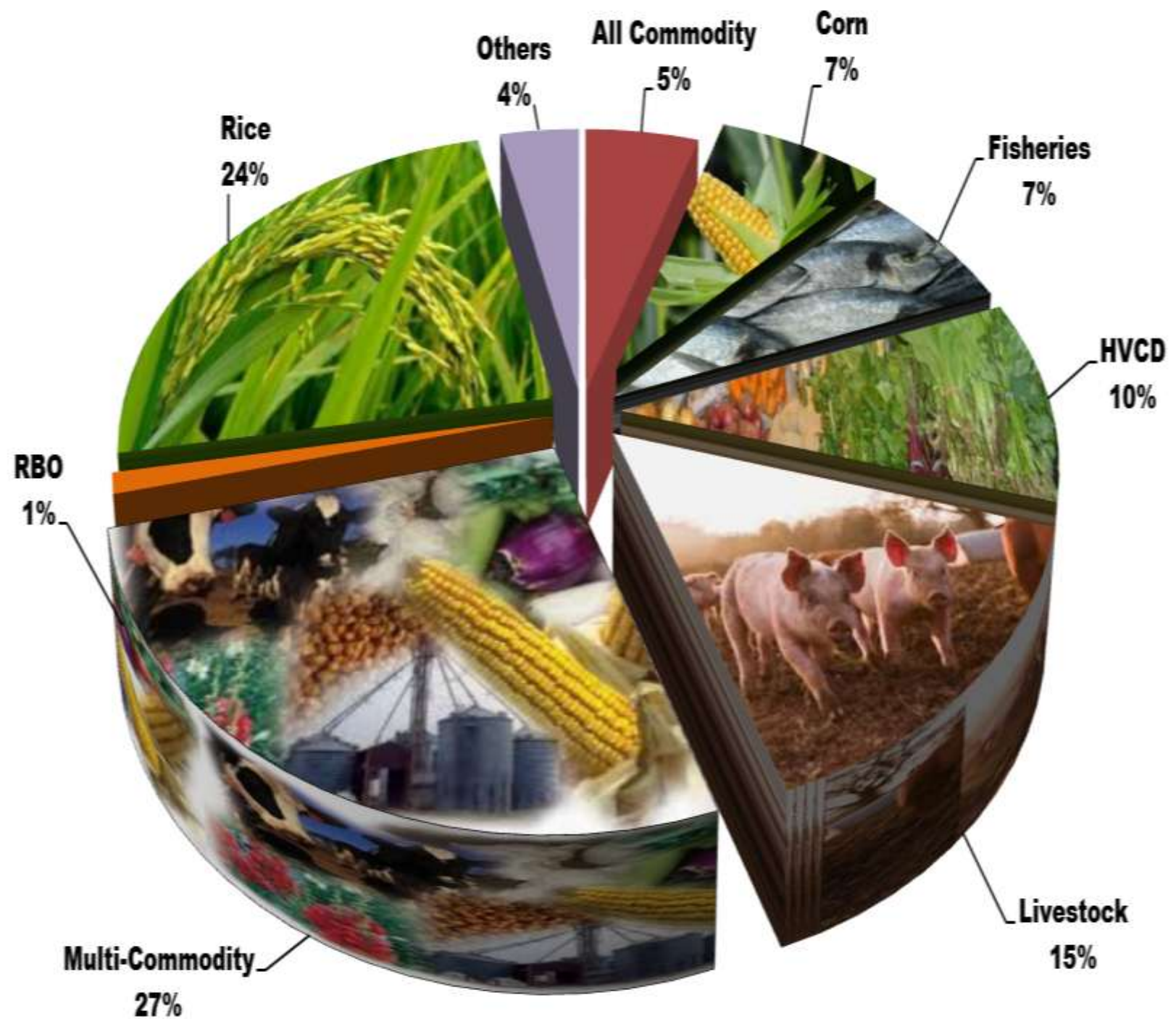
Average Salary of AEWs per Month



Note: Average salary per month includes all permanent, casual, contractual, and job order AEWs. Positions were also disregarded as well as their municipal and provincial income class.

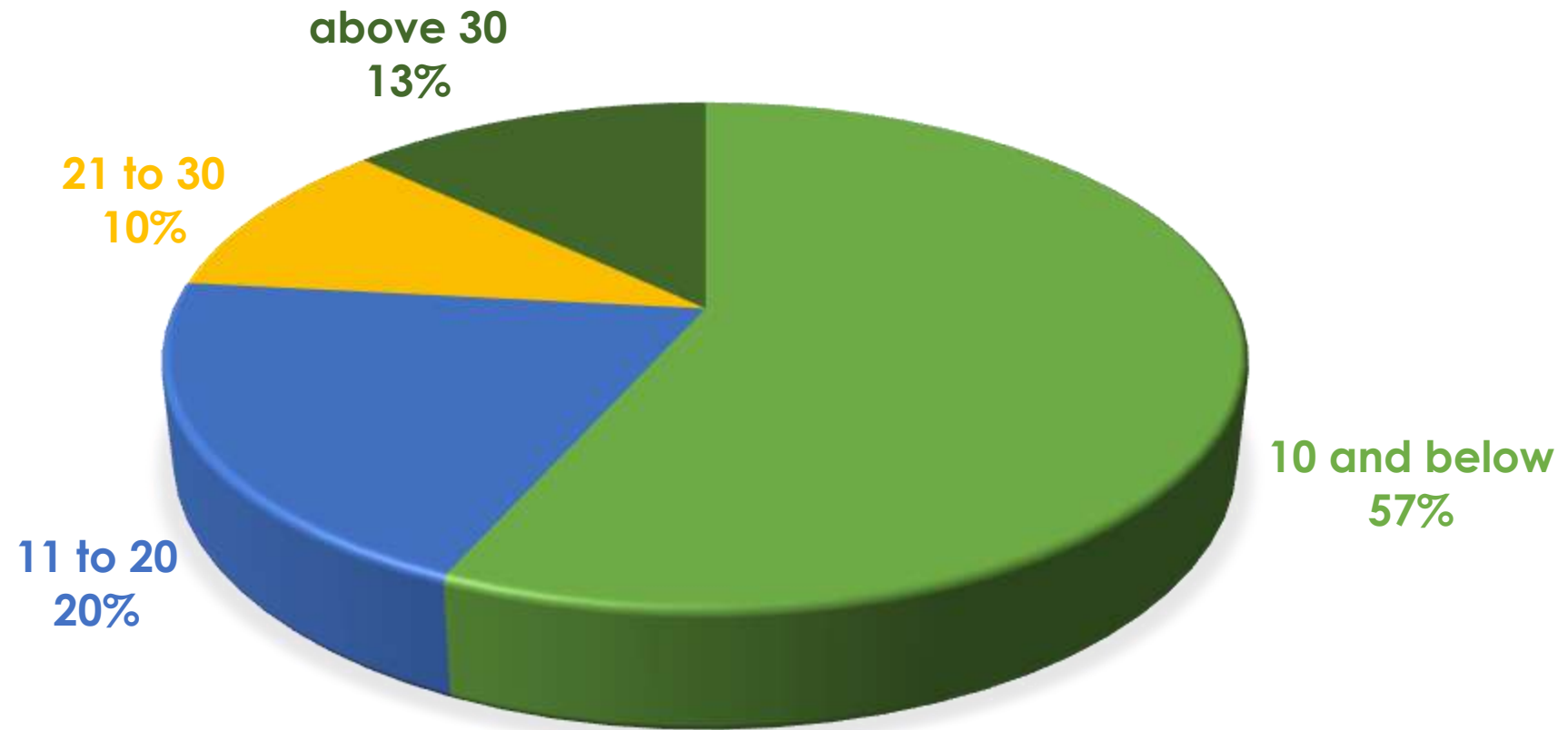


Distribution of AEWs based on Program Handled





Number of Barangays Served by AEWs (Municipal Level)



SUMMARY OF AEWs' COMPETENCIES/ CAPABILITIES RATINGS



RATING SCALES

0	No Knowledge
1	Little Knowledge
2	Some Knowledge
3	Adequate Knowledge
4	Knowledgeable
5	Very Knowledgeable



MANAGEMENT AND LEADERSHIP (by Position)

COMPETENCIES/CAPABILITIES	Position						
	PA	MA	CA	Agricultural Technologist	Agricultural Technician	Aquacultural Technologist	Aquacultural Technician
Analytic thinking/problem solving/conflict resolution skills	4	4	4	4	3	3	4
Behavioral flexibility/interpersonal/human relations skills	4	4	4	4	4	4	3
Conceptual skills	4	4	4	4	3	3	3
Communication skills	4	4	4	4	4	3	3
Personal impact skills	4	4	4	4	4	3	3
Planning	4	4	4	3	3	3	3
Organizing	4	4	5	4	3	3	3
Staffing	4	4	4	4	3	4	3
Leadership and teamwork skills	4	4	5	4	4	4	4
Controlling	4	4	4	3	3	3	3

* AEWs included were with Permanent position and with an average of 14 years in the service



AGRICULTURAL AND RURAL DEVELOPMENT

(by Position)

COMPETENCIES/CAPABILITIES	Position						
	PA	MA	CA	Agricultural Technologist	Agricultural Technician	Aquacultural Technologist	Aquacultural Technician
Agribusiness	4	3	3	3	3	3	3
Agricultural Economics	4	3	4	3	3	2	3
Agricultural Extension	4	4	4	4	4	3	4
Animal/livestock and Poultry	3	4	4	3	3	3	3
Crop Production and Management	4	4	4	4	3	3	3
Farm Business Management	4	4	4	3	3	3	3
Food Security	4	4	4	3	3	3	3
Horticultural Production and Management	4	3	3	3	3	2	2
Organic Agriculture	4	4	4	3	3	3	2
Plant Breeding	3	3	3	3	2	2	1
Plant Pathology	3	3	3	3	2	2	1
Rural tourism; agri-ecotourism	4	3	3	3	3	2	2
Soil and Water Management	4	3	4	3	3	3	2

** AEWs included were with Permanent position and with an average of 14 years in the service*



COMPUTER LITERACY (by Position)

COMPETENCIES/CAPABILITIES	Position						
	PA	MA	CA	Agricultural Technologist	Agricultural Technician	Aquacultural Technologist	Aquacultural Technician
Basic computer operation/computer care	3	3	3	3	3	3	3
Database (MS Access, others)	2	2	3	2	2	2	3
E-mail	3	2	3	2	2	2	3
Graphics (Pagemaker, Adobe Photoshop, others)	2	2	2	2	2	2	2
Information Communication Technology (ICT) in agriculture (e-Extension, Pinoy Rice Knowledge Bank, others)	2	2	3	2	2	2	2
Internet	3	2	3	2	2	3	3
Multimedia (MS Powerpoint, Moviemaker, others)	2	2	2	2	2	2	2
Spreadsheets (MS Excel, others)	2	2	2	2	2	2	3
Web page design	2	1	1	1	1	2	1
Word Processing (MS Word, others)	3	2	2	2	2	2	3

* AEWs included were with Permanent position and with an average of 14 years in the service



CURRENT SOURCES OF INFORMATION



1

FELLOW AGRICULTURIST



5

FARMERS' CONTACT CENTER



8

IRRI RICE KNOWLEDGE BANK



2

READING MATERIALS
(BROCHURES, MAGAZINES)



6

FARMERS



9

E-EXTENSION



3

TELEVISION



7

PHILRICE TEXT CENTER



10

PINOY RICE KNOWLEDGE BANK



4

RADIO



Ranking of Constraints for not Using ICT-Based Resources

1

**I do not
have
access to
these
resources**

2

**I don't
know how
to use ICT**

3

**I do not
find the
resources
useful**

4

**I do not
have time**

5

**I do not
know
these
resources
exist**



Problems Encountered in Extension Services Delivery

1

**Inadequate or lack of
travel allocation
support**

2

Low salary

3

**Lack of
opportunities for
promotion**

4

**Lack of
management
support**

5

**Inadequate budget
for programs and
projects**



RECOMMENDATIONS

TRAINING

- ☐ Revival of training farmer leaders per commodity per barangay
- ☐ Intensified training related on extension morality approach

HUMAN RESOURCE DEVELOPMENT

- ☐ Recognition of extension workers through incentives and promotions
- ☐ Filling-up of vacant positions to have a rationally distribution of tasks and assignment

ICT

- ☐ More trainings on ICT and computer literacy
- ☐ Installment of reliable internet connection for improve dissemination of updated technologies

IEC

- ☐ Materials to be translated into local dialects
- ☐ More reading materials to be distributed especially to far flung municipalities
- ☐ More publicity to encourage public participation

ORGANIZATIONAL STRENGTHENING

- ☐ Strengthen the coordinative function/linkage between national government agencies and LGUs
- ☐ Coordination and communication between AEWs and Local Chief Executives

MOBILITY

- ☐ Travel allocation for job orders
- ☐ Travelling expenses should be given to AEW's including hazard pay

FARM BUSINESS SCHOOL

- ☐ Regular meeting with farmers in order to exchange ideas, practices and information since extension work is a two-way process of learning

TECHNOLOGY DEMONSTRATION

- ☐ For every municipality to have a demo farm as a way of conveying technologies to end users or locally based trials/demos and experiments

RECOMMENDATIONS



GOVERNANCE

- ☐ Prioritization of agriculture
- ☐ National Government (DA) to support local agriculturist since they are the frontliners in performing and delivering agricultural services to the provinces and municipalities

POLICY. Always include lower class municipality in the programs and projects allocated by department of agriculture and agricultural training institute.

PLANNING. Bottoms-up planning from the national agencies and the LGUs as well.

BUDGETING. Increase the funds allotted for extension .

MONITORING. Feedback mechanism to be developed to measure/assess effectivity of AEWs in the delivery of extension services.

INFRASTRUCTURE/EQUIPMENT. Upgrade facilities for extension services such as ICT, mobility (having one motorcycle per AEW and official service for LGU) and office supplies



THANK YOU!

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