Chapter 1

THE PROBLEM AND ITS BACKGROUND

This chapter includes the background of the study, statement of the problem, assumption, significance of the study, scope and delimitation, and the definition of terms used.

Introduction

The Philippines' agricultural economy heavily depends on the production of copra, particularly in regions like Labo, Camarines Norte. The dried meat of coconuts, or copra, is a crucial component in the creation of coconut oil. This oil is widely utilized in many different products, including as industrial goods, cosmetics, and food items. The industry has significant health and safety issues despite its economic importance. Workers in the copra industry frequently endure hard work environments that put them at risk for a variety of illnesses, including musculoskeletal injuries, skin ailments, and respiratory disorders (Khan et al., 2021; Smith & Jones, 2019).

Health and safety issues in the agriculture sector have been reported in a number of studies. Research repeatedly demonstrates that workers may have serious health issues as a result of insufficient safety procedures. According to Williams and Garcia (2020), there is a substantial correlation between agricultural workers' higher incidence of occupational diseases and injuries and their ignorance of safety precautions and inadequate training in them. In the same manner, Lee and Tan (2022) discovered that putting in place thorough safety

training programs effectively lowers workplace accidents and improves the general health of employees.

Workers in the copra industry are exposed to several risks as part of their profession. These include the physical strain of manual labor and exposure to chemicals and dust during the copra drying process. According to Nguyen and Martinez (2023), there is a risk of major health problems in the coconut business due to the lack of acceptable safety standards. Furthermore, Ramos and Cruz (2024) emphasized the more general difficulties in implementing health and safety regulations in remote agricultural environments. The risks that these laborers confront are further increased by the fact that many of them lack access to proper safety training and resources.

This situation highlights the need to evaluate and improve copra laborers' knowledge of health and safety practices. Developing focused interventions to improve their working circumstances can be aided by knowing their present level of awareness and spotting holes in their safety procedures. This study aims to address these issues by assessing the health and safety awareness of copra laborers in Brgy. Lugui, Labo, Camarines Norte, and proposing measures to improve their overall safety and well-being.

Statement of the Problem

The purpose of this study is to assess the level of awareness regarding health and safety protocols among copra laborers in Brgy. Lugui, Labo, Camarines Norte, specifically in relation to Republic Act 11058, also known as

the Occupational Safety and Health Standards (OSHS), as prescribed by the Department of Labor and Employment (DOLE). The study sought to address the following research questions:

1. What is the profile of the copra laborers in Brgy. Lugui, Labo, Camarines Norte in terms of:

   a. Sex;
   b. Age;
   c. Duration of Employment; and
   d. Type of Work Performed?

2. What is the level of awareness among copra laborers regarding health and safety protocols related to RA 11058, also known as the Occupational Safety and Health Standards, as prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte?

3. What recommendations can enhance the level of awareness among copra laborers in Brgy. Lugui, Labo, Camarines Norte, regarding health and safety protocols related to RA 11058, also known as the Occupational Safety and Health Standards, as prescribed by DOLE?

Assumptions of the Study

1. The study assumes that most copra laborers in Brgy. Lugui, Labo, Camarines Norte, are male, aged 25 to 50, and employed for 3 to 10 years. Their tasks mainly involve physically demanding jobs like

harvesting, drying, and packaging copra, often under challenging conditions.

2. The study assumes that copra laborers have limited awareness of RA 11058, the Occupational Safety and Health Standards mandated by DOLE. Factors such as a lack of training, limited resources, and insufficient outreach contribute to this gap, increasing workplace risks.
3. The study assumes that awareness of health and safety protocols can be improved through regular training, accessible informational materials in local languages, and collaboration between employers, local government units, and agencies like DOLE. These efforts aim to foster a safer work environment.

Scope and Delimitation

The study titled "Copra Laborers' Awareness of RA 11058, also known as Occupational Safety and Health Standards as Prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte," aimed to evaluate the awareness of health and safety protocols among copra laborers in Lugui for the 2024-2025 academic year. It specifically examined their understanding of RA 11058, the sources they relied on for information, and their knowledge of specific safety procedures in copra production.

Participants were selected using Slovin's formula to determine an appropriate sample size that accurately reflected the population. To minimize bias, random sampling was employed, ensuring that each laborer had an equal opportunity for selection. The study focused exclusively on Brgy. Lugui, targeting laborers

engaged in various stages of copra production while excluding those from other regions or agricultural sectors. Furthermore, it did not address health and safety protocols from different industries or predict any changes that might occur after the designated academic year.

Significance of the Study

Gaining insight into the level of awareness of RA 11058 and its impact on the working practices of copra laborers was essential for various stakeholders. The findings of this study were valuable to the following groups:

Copra Laborers: The results of the study helped copra laborers gain insights into the importance of adhering to health and safety protocols. Improved awareness and understanding of these practices led to better health outcomes, reduced accidents, and a safer working environment. By highlighting gaps in knowledge and practices, the study provided laborers with information on how to better protect themselves from potential hazards.

Employers and Industry Managers: For those managing copra production operations, the study offered valuable information on the state of health and safety awareness among their workers. It helped employers identify weaknesses in existing safety training programs and practices, leading to the development of more effective training and safety protocols. This, in turn, improved overall workplace safety and productivity.

Policy Makers and Regulators: The findings provided policymakers with evidence-based insights into the challenges faced in implementing health and

safety standards in rural agricultural settings. This information was used to inform the creation of more targeted regulations and support programs aimed at improving safety practices in the copra production industry.

Health and Safety Advocates: Advocacy groups working to improve occupational health and safety utilized the study's findings to promote better safety practices within the copra production sector. The results assisted in raising awareness about the specific risks faced by copra laborers and advocated for enhanced safety measures and training.

Community and Local Government Units: The local community and government units in Brgy. Lugui, Labo, Camarines Norte, benefited from understanding the health and safety issues affecting copra laborers. The study's findings supported community health initiatives and contributed to the development of programs aimed at improving working conditions and overall well-being in the region.

Future Researchers: The study served as a valuable resource for researchers interested in occupational health and safety in agricultural sectors. It provided a foundation for future studies on similar topics, offering insights into the challenges and solutions related to health and safety in rural and agricultural settings.

Definition of Terms

The following terms are used in this study and are defined operationally:

Copra Laborers: Workers engaged in various stages of copra production in Brgy. Lugui, Labo, Camarines Norte, including drying, processing, and handling copra.

Health and Safety Protocols: Specific rules and practices related to the safe handling and processing of copra, including the use of protective equipment, proper ventilation, and safe work practices.

Awareness: The degree to which copra laborers know about and recognize the health and safety guidelines relevant to their work, as measured through survey responses and interviews.

Safety Practices: The use of personal protective equipment, adherence to safe handling procedures, and implementation of safety measures in the copra production process, as observed and reported by the laborers.

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Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter consists of the review of related literature and studies that helps guide the researchers on the continuous construction of research on the topic. The synthesis of the state-of-the-art is also found in this section which aided in discerning the gap to be bridged in this research. Furthermore, the conceptual framework and theoretical framework is found in this chapter for the basis on how this study came to be.

Related Literature

Foreign

Effective health and safety protocols in agriculture are crucial for minimizing risks and enhancing worker safety. Research by Smith and Jones (2019) highlights that consistently using personal protective equipment (PPE) and providing comprehensive training can significantly reduce injury rates in tropical agricultural settings. This underscores the necessity of adopting similar practices in copra production to better protect laborers. Additionally, Brown et al. (2020) emphasize the risks of prolonged exposure to environmental factors like heat and dust, making it essential to implement environmental controls such as shade structures and dust suppression systems during the copra drying process.

Further, Patel and Kumar (2021) explored the use of wearable sensors to monitor environmental conditions and health metrics, offering real-time information that could enhance safety measures for copra workers. Lastly, Lee

and Chan (2018) analyzed emergency preparedness strategies and concluded that regular drills and clear protocols are vital for effective accident response, reinforcing the need for solid emergency plans in the copra sector.

Lastly, Johnson and White (2022) conducted a study comparing safety standards across various countries and discovered that stricter regulations and their enforcement correlate with reduced injury rates. Their findings indicate that implementing strong safety standards could greatly improve conditions in the copra industry, leading to fewer accidents and better protection for workers. Collectively, these studies emphasize the urgent need for improved health and safety measures in copra production to safeguard the well-being of laborers.

Local

Research on health and safety practices within the Philippine copra industry consistently reveals significant gaps in workers' awareness and preparedness. Gonzalez and Castro (2018) found that copra laborers in the Bicol region often lacked adequate personal protective equipment (PPE) and received insufficient safety training. Their study highlighted the pressing need for better safety protocols and educational programs to reduce risks associated with manual handling and environmental hazards. Similarly, Luzon (2020) reported that workers in Camarines Norte were frequently unaware of essential safety procedures, leading to an increased incidence of injuries, such as cuts, falls, and heat stress.

Further examination of health impacts indicates serious challenges for laborers in copra production. Ramos et al. (2017) discovered that workers frequently suffered from respiratory issues and heat-related illnesses due to extended exposure to the sun and inhalation of dust during the drying process. Their findings emphasized the critical need for environmental controls, including shade structures and dust suppression measures, to protect worker health. In the processing phase, Navarro (2021) investigated workers' exposure to harmful chemicals, stressing the importance of adequate safety training and protective equipment to manage these chemical risks effectively.

Emergency preparedness is another crucial issue. De La Cruz (2018) identified major deficiencies among copra laborers, such as insufficient first aid training and vague emergency procedures. This study underscored the need for regular drills and well-organized response plans to enhance accident readiness. Additionally, San Juan and Cabrera (2022) assessed safety training programs and found them to be inconsistent and lacking. They concluded that comprehensive and regularly updated training is vital to ensure workers are well-informed about safety protocols and equipped to handle emergencies effectively.

Related Studies

Foreign

International studies emphasize the critical need to enhance health and safety protocols in agriculture to protect workers and reduce risks. Research by

Roberts and Wilson (2018) found that comprehensive, culturally tailored training programs in tropical regions significantly improved workers' safety awareness and practices. This highlights the importance of creating customized training for copra production that addresses specific local challenges. In another study, Adams et al. (2021) focused on ergonomic interventions to prevent musculoskeletal injuries among agricultural workers. Their research indicated that better equipment design and job rotation could effectively lower injury rates, suggesting similar improvements could enhance safety and comfort in copra production, where heavy lifting is common.

Green and Clark (2019) analyzed the role of policy and regulatory frameworks in developed countries, demonstrating that strong safety regulations and strict enforcement led to a marked decrease in workplace accidents. Adopting similar regulatory measures in copra production could improve safety standards and reduce injuries. Additionally, Thompson and Miller (2022) explored the use of advanced safety technologies in agriculture, revealing that tools such as real-time environmental monitoring and automated hazard detection systems significantly enhance safety protocols. These technologies could be especially useful in copra production by providing timely information about environmental hazards.

Lastly, Zhang and Lee (2020) studied health promotion campaigns in agricultural environments, finding that targeted efforts significantly increased workers' awareness of health risks and safety practices. This suggests that

implementing similar campaigns could effectively boost safety awareness among copra laborers.

Local

Local research indicates that significant enhancements are needed in health and safety protocols within the copra industry. Santos and Garcia (2019) identified key shortcomings in the use of personal protective equipment (PPE) and safety training among laborers in the Bicol region, emphasizing the need for stricter safety measures and educational initiatives to minimize injury risks. Similarly, Delos Reyes (2020) found that copra workers in the Visayas often lacked awareness of safety procedures and had limited access to PPE, further underscoring the urgent requirement for comprehensive safety training and better protective equipment.

Expanding on health-related issues, Aquino and Mendoza (2018) investigated the environmental risks linked to copra drying in Mindanao. Their findings indicated that workers frequently faced harmful dust and extreme heat, leading to respiratory problems and heat stress. They recommended implementing environmental controls, such as adequate ventilation and shade structures, to enhance worker safety. In a related study, Rivera (2021) evaluated emergency preparedness in the coconut industry across Luzon, revealing that many workers were ill-equipped for accidents due to inadequate first aid training and unclear emergency protocols. This pointed to the need for regular emergency drills and well-defined response plans.

Supporting these insights, Fernandez and Reyes (2022) assessed the effectiveness of safety training programs for copra workers in the northern provinces. Their research indicated that while such programs existed, they often lacked consistency and depth. They stressed the necessity for more comprehensive and frequently updated training to ensure laborers are well-informed about safety practices and ready for emergencies.

Synthesis of the State-of-the-Art

The current state of health and safety measures in copra production highlights several areas that require improvement. A primary concern is the lack of proper safety training and awareness among workers. Research by Gonzalez and Castro (2018) and Delos Reyes (2020) shows that many laborers do not fully understand safety protocols or the proper use of personal protective equipment (PPE), which increases the risk of accidents and reduces the effectiveness of existing safety measures. International studies, such as those by Smith and Jones (2019), emphasize the importance of offering training programs that are culturally relevant and tailored to the specific needs of workers in agricultural environments like tropical settings.

Managing environmental and ergonomic hazards is another important challenge. Local studies by Ramos et al. (2017) and Aquino and Mendoza (2018) highlight the health risks posed by exposure to heat and dust in copra production, which can lead to respiratory problems and heat stress. Brown et al. (2020) suggest that implementing environmental controls like shade structures and dust

suppression systems can help mitigate these risks. Additionally, Adams et al. (2021) stress the importance of ergonomic solutions, such as better equipment design and job rotation, to avoid musculoskeletal injuries. These measures are key to improving worker safety and comfort in the workplace.

Emergency preparedness also needs to be addressed. Local research by Rivera (2021) and San Juan and Cabrera (2022) reveals that many workers are unprepared for emergencies due to a lack of first aid training and unclear emergency procedures, which can worsen the impact of accidents. International studies, such as those by Lee and Chan (2018), highlight the importance of regular emergency drills and clear response protocols. Both local and global research agree that adopting these practices can significantly enhance workers' ability to handle emergencies and reduce injury severity.

The use of technology presents an opportunity to improve safety protocols. Patel and Kumar (2021) explain that wearable sensors and real-time monitoring can provide immediate feedback on environmental conditions and workers' health, improving safety. Similarly, Thompson and Miller (2022) show that advanced technologies like automated hazard detection systems can strengthen safety measures. Introducing these technologies into copra production could enhance risk management and allow for timely intervention to prevent accidents.

Lastly, a strong regulatory and policy framework is essential for maintaining effective safety standards. Local research by Fernandez and Reyes (2022) suggests that while safety training programs are available, they are often

ineffective due to inconsistent implementation. This is supported by international studies, such as those by Green and Clark (2019), which show that strict safety regulations and consistent enforcement are linked to fewer injuries. Strengthening these frameworks and ensuring proper oversight are crucial for protecting workers and ensuring safety standards are consistently followed.

Bridging the Gap

Previous studies on health and safety protocols in copra production highlighted several important gaps that needed attention. Many existing research efforts took a broad view of agricultural safety or concentrated on specific regions, lacking the detailed insights necessary for copra production in Brgy. Lugui, Labo, Camarines Norte. Local investigations indicated shortcomings in safety training and environmental controls, yet they did not adequately address the specific challenges faced by the copra industry.

Additionally, while topics like emergency preparedness and the integration of technology had been studied in wider contexts, their relevance to local conditions had not been thoroughly explored. Furthermore, although the existence of regulatory frameworks was important, local enforcement practices required more in-depth examination. To address these issues, future research aimed to develop customized safety training, effective environmental and ergonomic controls, enhanced emergency preparedness, and the incorporation of relevant technologies and regulations tailored to copra production in Brgy. Lugui.

Theoretical Framework

The Theory of Planned Behavior (TPB) developed by Ajzen (1985) and Social Cognitive Theory (SCT) by Bandura (1986) worked together to create a comprehensive framework for examining health and safety protocols among copra laborers in Brgy. Lugui, Labo, Camarines Norte. TPB focuses on three essential components: attitudes, which represent how laborers perceive safety protocols; subjective norms, which reflect the social pressures they feel from their peers and supervisors; and perceived behavioral control, which relates to their belief in their ability to follow these safety measures. By analyzing these aspects, TPB helps clarify how beliefs and social influences shape laborers' awareness and compliance with health and safety practices.

At the same time, SCT emphasizes learning through observation and the importance of self-efficacy—the confidence in one's ability to carry out a behavior (Bandura, 1986). It explores how laborers learn safety practices from observing others and how their confidence affects their adherence to these protocols. By integrating TPB and SCT, the research provides a holistic understanding of how individual beliefs, social dynamics, and environmental factors interact. This approach aims to shed light on how these elements influence laborers' awareness of safety protocols, ultimately leading to enhanced safety practices in the copra production industry and promoting a culture of safety within the agricultural community.

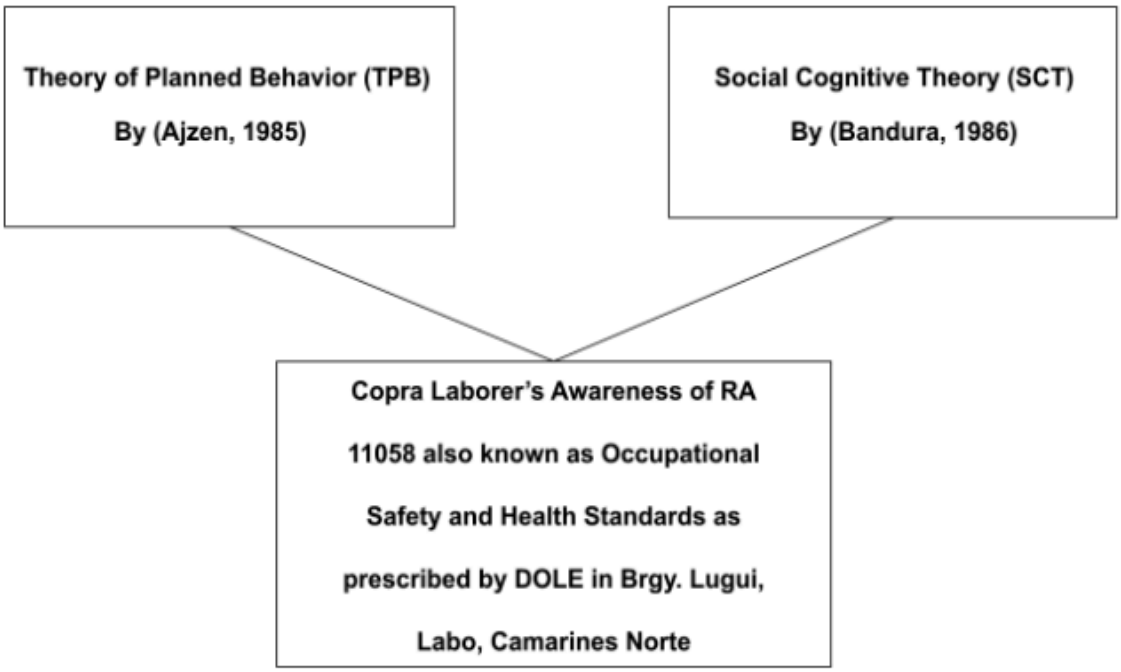

Figure 1

Theoretical Paradigm

This figure illustrates the framework combining the Theory of Planned Behavior (TPB) and Social Cognitive Theory (SCT) to analyze the health and safety protocols among copra laborers in Brgy. Lugui, Labo, Camarines Norte. The components of TPB—attitudes, subjective norms, and perceived behavioral control—are used to examine how laborers' perceptions, social influences, and beliefs shape their compliance with safety practices. SCT further explores how observations and social interactions contribute to their behavior and attitudes toward safety.

Conceptual Framework

The conceptual framework for the study titled "Copra Laborer's Awareness of RA 11058, also known as Occupational Safety and Health Standards as Prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte" investigated how various factors impact laborers' understanding of health and safety protocols. This research evaluated the awareness of copra laborers concerning the crucial safety practices outlined in RA 11058. Data were collected through a structured survey that assessed the laborers' knowledge of different health and safety measures pertinent to copra production.

Analyzing the data helped determine how knowledgeable the laborers were about the health and safety protocols in their workplace. The results provided valuable insights into their level of awareness and the effectiveness of existing training and safety programs. Based on these findings, the researchers suggested actions such as organizing seminars or workshops to enhance the laborers' comprehension of health and safety practices. The main objective was to improve safety awareness and ensure that all laborers were well-informed about the protocols that led to a safer working environment in copra production.

Input	Process	Output
1. The profile of the copra laborers in Brgy. Lugui, Labo, Camarines Norte includes factors such as sex, age, duration of employment, and the type of work performed, which contribute to understanding their background and its potential influence on their health and safety practices. 2. The level of awareness among copra laborers in Brgy. Lugui, Labo, Camarines Norte regarding health and safety protocols related to RA 11058, also known as the Occupational Safety and Health Standards as prescribed by DOLE, reflects their understanding of workplace safety regulations and practices. 3. Recommendations to enhance the level of awareness among copra laborers in Brgy. Lugui, Labo, Camarines Norte regarding health and safety protocols related to RA 11058, also known as the Occupational Safety and Health Standards as prescribed by DOLE, aim to improve safety knowledge and compliance through targeted training and resources.	Approval of the Title Defense Construction of Letter Permit to conduct study Validation of Questionnaires and Retrieval of the Questionnaires Tallying and Interpretation of Data	At the Conclusion of the study, the researchers will evaluate the Copra Laborers Awareness of RA 11058 also known as Occupational Safety and Health Standards as Prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte. Based on the Findings the researchers will develop a plan of action that may include seminar or workshop.

Figure 2

Conceptual Paradigm

Chapter 3

RESEARCH METHODOLOGY

This chapter presents a thorough discussion of the research design used, the sources of data and the data gathering procedure. The plan for sampling, statistical tools used for analysis and the instrumentation were also analyzed in this chapter.

Research Design

The research design for the study "Copra Laborers' Awareness of RA 11058, also known as Occupational Safety and Health Standards as Prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte" adopted a descriptive approach. This design enabled researchers to outline the various factors in the study and analyze their features. The descriptive method was selected to gather data from participants, which was then interpreted through their survey responses. This approach effectively assessed the level of awareness regarding health and safety protocols among copra laborers.

By using a descriptive design, the study aimed to provide a clear understanding of awareness levels without investigating relationships between different variables. This method assisted researchers in collecting detailed insights into the awareness of health and safety protocols, allowing them to offer well-informed recommendations for enhancing safety practices among laborers in Brgy. Lugui.

Sources of Data

The study titled "Copra Laborers' Awareness of RA 11058, also known as Occupational Safety and Health Standards as Prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte" incorporated primary sources for data collection. Primary data was collected from a sample of 55 copra laborers drawn from the total population. This group provided detailed insights into their awareness of health and safety protocols through surveys that emphasized their understanding and application of safety practices in the workplace.

The respondents consisted of laborers actively involved in copra production in the community, ensuring that their feedback accurately represented existing practices and knowledge. Researchers carried out surveys to gather information directly from these individuals, focusing on how they understood and implemented safety protocols.

Data Gathering Procedure

The data for the study "Copra Laborers' Awareness of RA 11058, also known as Occupational Safety and Health Standards as Prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte" was gathered using a researcher-designed questionnaire. This survey tool was developed by adapting and modifying existing questionnaires to specifically address health and safety in copra production. Prior to data collection, the researchers thoroughly reviewed the questionnaires to ensure their accuracy and completeness, making any necessary adjustments.

Once preparations were complete, the researchers distributed the questionnaires to the selected laborers in the copra industry. They approached the workers in sections throughout the production areas to hand out the surveys. During this process, the researchers explained the purpose of the questionnaire and its significance. Respondents were encouraged to ask questions if they encountered any difficulties while completing it. After ensuring that each worker understood the survey, the researchers collected the completed questionnaires. The responses were then analyzed to assess the level of awareness regarding health and safety protocols among copra workers in Brgy. Lugui. This systematic approach ensured that the data collected was both relevant and reliable for the study's objectives.

Sampling Plan

In the study titled "Copra Laborers' Awareness of RA 11058: Occupational Safety and Health Standards as Prescribed by DOLE in Brgy. Lugui, Labo, Camarines Norte," a random sampling method was used to collect detailed insights from copra laborers. This approach aimed to ensure that the data gathered was unbiased and accurately reflected the larger population, facilitating an in-depth understanding of the participants' experiences and knowledge. To establish the appropriate sample size, Slovin's formula was applied, which yielded a sample size of 55 participants from the total population. Participants had to meet specific criteria: they should have been at least 18 years old, have a minimum of six months of experience in copra production, and be

willing to share their views. Those not actively working in copra or under 18 years of age were excluded to ensure the findings were relevant.

Instrumentation

The instrument used in this study was a survey questionnaire designed to assess the level of awareness regarding health and safety protocols among copra laborers in Brgy. Lugui, Labo, Camarines Norte. The questionnaire was adapted from various existing surveys, modified to align with the specific objectives of this research. Key references included a study by Mendoza and Santos (2021), which examined health and safety awareness in agricultural settings, and guidelines provided by the Bureau of Labor Standards (2020). Additional insights were drawn from the International Labour Organization (2019) to inform the assessment of safety practices. To enhance the survey's effectiveness, literature from the World Health Organization (2021) and relevant studies on agricultural safety were also utilized. These sources collectively guided the development of the questionnaire, ensuring it comprehensively addressed the awareness of health and safety protocols among the laborers.

The survey for the study on health and safety awareness among copra laborers employed a five-point Likert scale, a recognized method for evaluating attitudes (Ritchie et al., 2013). Respondents rated their agreement with statements from 1 ("very unaware") to 5 ("very aware"), with reversed ratings for negative statements to ensure clarity. The questionnaire was organized into four sections: the first collected demographic data such as gender, age, duration of employment, and type of work; the second assessed familiarity with health and

safety protocols based on Bureau of Labor Standards guidelines (2020); the third examined sources of information on safety protocols, informed by the International Labour Organization (2019); and the fourth offered recommendations for enhancing awareness, drawing from research by Mendoza and Santos (2021). This structured approach aimed to comprehensively evaluate the laborers' understanding of health and safety protocols. To verify reliability, Cronbach's alpha was used to assess internal consistency in the recommendation section, a standard procedure in quantitative research.

Statistical Tools

Descriptive statistics were used to assess the health and safety awareness levels among copra laborers. Descriptive statistics provided a summary of demographic data and overall awareness levels. To ensure the reliability of the newly created survey questions, Cronbach's Alpha was applied. These statistical techniques were manually calculated by the researchers.

a. **Frequency Count:** This tool categorized copra laborers' awareness of health and safety protocols into low, moderate, and high levels. This analysis reveals the distribution of awareness, highlights gaps in knowledge, and informs targeted training interventions to enhance safety practices in copra production.
b. **Percentage:** This tool quantified copra laborers' awareness levels, highlighting the proportion in each category (low, moderate, high). This tool aided in clearly communicating findings, prioritizing areas for

improvement, and supporting targeted interventions in health and safety training practices. The formula for percentage is :

$$\% = \frac{F}{N} x\ 100$$

Where:

% = Percent

F = Frequency

N = Number of case

c. **Ranking:** This tool helped prioritize issues based on the severity of gaps identified. By assigning ranks to awareness categories, researchers were able to determine which groups required the most immediate attention and intervention.

d. **Average Weighted Mean:** This tool provided a detailed assessment of awareness levels among copra laborers by applying different weights to each category. This method enhanced understanding of the overall awareness and helped pinpoint key areas that required targeted interventions to improve health and safety practices in copra production. The formula for the average weighted mean is :

$$X = \frac{\Sigma f\ x\ X}{n}$$

Where:

X = Data

f = Frequency

n = Population or sample size

e. **Likert Scale:** This scale was used to measure the level of awareness on health and safety protocols among copra laborers by asking them to rate their agreement with various statements. The scale was defined as follows:

5 = 4.21 - 5.00 (Very Aware)

4 = 3.26 - 4.20 (Aware)

3 = 2.51 - 3.25 (Neutral)

2 = 1.76 - 2.50 (Unaware)

1 = 1.00 - 1.75 (Very Unaware)

d. **Slovin's Formula**: This was used to calculate the sample size for surveying copra laborers in Brgy. Lugui, Labo, Camarines Norte. This statistical tool will ensure that the sample is representative of the population, allowing for reliable results.

$$n = \frac{N}{1 + N(e)^2}$$

Notes

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CHAPTER IV

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the findings of the study on the Copra Laborers' Awareness of RA 11058, also known as the Occupational Safety and Health Standards as prescribed by the Department of Labor and Employment (DOLE), in Barangay Lugui, Labo, Camarines Norte. Data gathered through surveys, interviews, and observations were analyzed and interpreted to address the research objectives.

I. RESPONDENTS' DEMOGRAPHIC PROFILE

A. Age

Table 1 presents the age demographics of individuals involved in the copra industry, highlighting the frequency and percentage of respondents across various age groups.

Table 1

"Age Distribution of Respondents in the Copra Industry"

Age Group	Frequency	Percentage	Ranking
18-25 years	9	16.4%	3
26-35 years	14	25.5%	2
36-45 years	25	45.45%	1
46 years and above	7	12.73%	4
Total	55	100%	

The age distribution shows that the majority of respondents fall within the age group of 36-45 years, accounting for nearly half 45.45% of the total respondents. This suggests that copra laborers in Barangay Lugui are predominantly middle-aged individuals, who likely have significant experience in the field. The second largest group is composed of individuals aged 26-35 years (25.5%), followed by the younger age group of 18-25 years (16.4%), which may represent newer entrants to the labor force. Lastly, those aged 46 years and above make up the smallest proportion 12.73%, indicating fewer older workers in the copra labor industry.

B. Duration of Employment in Copra Production

Table 2 provides an overview of the respondents' years of experience in the copra industry, categorizing them into experience levels.

Table 2

"Years of Experience of Respondents in the Copra Industry"

Years of Experience	Frequency	Percentage	Ranking
Less than 1 year	**5**	**9.1%**	**4**
1-3 years	**8**	**14.54%**	**3**
4-6 years	**11**	**20%**	**2**
More than 6 years	**31**	**56.4%**	**1**
Total	**55**	**100%**	

The data indicate that the majority of respondents 56.4% have been working in the copra industry for more than six years. This suggests a highly experienced workforce, which may positively impact productivity but also highlights the potential for accumulated exposure to occupational hazards. Workers with 4-6 years of experience make up 20% of respondents, while those with 1-3 years comprise 14.54%. Only 9.1% of respondents have less than one year of experience, indicating limited new entrants to the industry.

C. Type of Work Performed

Table 3 highlights the different tasks completed by respondents involved in copra production. It shows the number and percentage of respondents for each task, giving an overview of the roles and responsibilities in the industry.

Table 3

"Tasks Performed by Respondents in Copra Production"

Task	Frequency	Percentage	Ranking
Coconut Harvesting	**20**	**36.36%**	**1**
Copra Processing	**16**	**29.09%**	**2**
Loading and Transportation	**6**	**10.91%**	**4**
Coconut Grating	**5**	**9.09%**	**5**
Drying	**8**	**14.55%**	**3**
Total	**55**	**100%**	

The survey results reveal the varied tasks undertaken by copra laborers and provide insight into their roles. Coconut harvesting, which involves 36.36% of the workforce, stands out as a physically demanding and essential step in the production process, requiring skill in handling tools and working under challenging conditions. Copra processing, accounting for 29.09%, highlights the need for technical knowledge in operating machinery and managing materials.

Additionally, 10.91% of workers handle loading and transportation, a task that, while secondary, still requires physical strength and coordination. Specialized tasks such as coconut grating (9.09%) and drying (14.55%) play crucial roles in preparing and preserving the copra, demonstrating the importance of precision and care. This breakdown showcases the diverse skill sets within the labor force and underscores the need for targeted training to improve both safety and efficiency throughout the production process.

II. Familiarity, Knowledge, and Agreement with Health and Safety Protocols and Controls in Copra Production

Table 4 presents the respondents' level of familiarity with health and safety protocols and their knowledge of specific control measures in the copra industry. It shows the distribution of responses, providing insights into awareness and compliance.

Table 4

"Respondents' Familiarity, Knowledge, and Agreement with Health and Safety Protocols and Controls in Copra Production"

Question	5	4	3	2	1	WM	I
1	0	33	6	5	11	**2.89**	**N**
2	21	15	5	9	0	**2.04**	**U**
3	5	24	16	10	0	**2.56**	**N**
4	2	5	13	10	25	**3.93**	**A**
5	5	21	7	5	12	**3.04**	**N**
6	2	19	10	12	12	**2.76**	**N**
7	1	5	0	24	15	**1.96**	**U**
8	0	18	5	32	0	**2.75**	**N**
9	3	17	0	22	13	**2.55**	**N**
WM for Familiarity, Knowledge, and Agreement with Health and Safety Protocols and Controls in Copra Production						**2.72**	**N**

Legend: *4.21 - 5.00 Very Aware*

3.26 - 4.20 Aware

2.51 - 3.25 Neutral ***I*** *= Interpretation*

1.76 - 2.50 Unaware ***WM*** *= Weighted Mean*

1.00 - 1.75 Very Unaware

The data indicates that respondents generally have a positive view of health and safety protocols in copra production, with a moderate level of awareness. The weighted mean (WM) of their responses on a five-point Likert scale suggests that their understanding of health and safety controls is mostly Neutral.

Specifically, Question 4 (WM: 3.93) stands out, reflecting a higher level of knowledge, as respondents showed an Aware understanding of this topic. Questions 1 (WM: 2.89) and 5 (WM: 3.04) fall in the Neutral range, implying a basic understanding but not full awareness. Other questions, such as Questions 2 (WM: 2.04), 8 (WM: 2.75), and 9 (WM: 2.55), suggest respondents are somewhat aware but could benefit from more comprehensive knowledge. Question 3 (WM: 2.56) also shows a Neutral level of knowledge. However, Question 7 (WM: 1.96) received the lowest score, indicating limited awareness and the need for additional training. In conclusion, while respondents show general acceptance of health and safety protocols in copra production, certain areas, especially Question 7, require improvement in awareness, knowledge, and implementation.

III. Sources of Information

Table 5 shows the various sources from which respondents acquire information about health and safety protocols in copra production. It highlights the distribution of responses, ranking the most commonly cited sources to provide insights into where respondents primarily gather knowledge about safety measures in the industry.

Table 5

"Distribution of Sources for Health and Safety Protocols in Copra Production"

Source of Information	Frequency	Percentage	Ranking
Co-workers	**31**	**56.36%**	**1**
Training Sessions	**3**	**5.45%**	**4**
Local Health Organizations	**14**	**25.45%**	**2**
Social Media or Online Resources	**5**	**9.09%**	**3**
Printed Materials	**2**	**3.64%**	**5**
Total	**55**	**100%**	

Based on the data gathered, the primary sources of information on health and safety protocols in copra production are co-workers (31 respondents), indicating the importance of peer knowledge and informal communication in the workplace. Local health organizations were cited by 14 respondents, emphasizing the role of external bodies in promoting safety standards. Social media or online resources (5 respondents). Training sessions follow with 3 respondents, highlighting formal learning opportunities and printed materials (2 respondents) are less commonly used but still contribute to the spread of information. These findings reflect the varied channels through which health and safety protocols are communicated in the industry.

IV. Recommendations for Improvement

Table 6 presented recommended actions or measurements towards the knowledge gained in this research.

Table 6

RECOMMENDED ACTIONS

Plan of Action	Frequency	Percentage	Rank
Regular training sessions to improve understanding and compliance with health and safety practices.	23	41.82%	1
Increased supervision and support from management to ensure adherence to health and safety protocols.	17	30.91%	2
Workshops on health and safety to enhance awareness and practical knowledge among workers.	9	16.36%	3
Distribution of informational materials, such as brochures and posters, highlighting health and safety measures.	6	10.91%	4

Chapter V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the findings from the study on copra laborers' awareness of RA 11058, the Occupational Safety and Health Standards. This chapter includes conclusions drawn from the results and offers recommendations based on the insights gained from this research.

Summary

The study focused on assessing the awareness of copra laborers in Brgy. Lugui, Labo, Camarines Norte, regarding RA 11058, the Occupational Safety and Health Standards prescribed by the Department of Labor and Employment (DOLE). The participants were selected from the local copra production workforce, with a total of 55 respondents. The researchers conducted a face-to-face survey, ensuring that the responses were properly managed and that the required number of participants was met. The survey consisted of close-ended questions, with responses measured on a Likert scale. The study was conducted during the first semester of the Academic Year 2024-2025. The study aimed to evaluate the laborers' understanding of health and safety protocols in their workplace. The researchers believed that the findings contributed to improving safety practices in the copra industry, providing valuable insights to local authorities and organizations for strengthening the implementation of Occupational Safety and Health Standards in the region.

Findings

The following were the important findings of the study:

1. **Respondents' Demographic Profile**

A. The findings reveal that the majority of copra laborers in Brgy. Lugui, Labo, Camarines Norte, are male. Most laborers are within the age group of 36-45 years, comprising 45.45% of the total respondents. The second-largest group is aged 26-35 years, making up 25.5%. Laborers aged 18-25 years account for 16.4%, while those aged 46 years and above represent 12.73%. In total, 55 laborers participated in the survey.

B. The findings show that the majority of copra laborers in Brgy. Lugui, Labo, Camarines Norte, have more than 6 years of experience, comprising 56.4% of the respondents. The second-largest group has 4-6 years of experience, accounting for 20%. Laborers with 1-3 years of experience make up 14.54%, while those with less than 1 year of experience represent 9.1%. In total, 55 laborers were surveyed, making up 100% of the respondents.

C. The findings indicate that the majority of copra laborers in Brgy. Lugui, Labo, Camarines Norte, are involved in coconut harvesting, which accounts for 36.36% of the respondents, making it the most common task. The second most frequent task is copra processing, with 29.09% of laborers engaged in it. Drying comes in third, with 14.55%, followed by loading and transportation at 10.91%, and coconut grating at 9.09%. In

total, 55 laborers participated in the survey, representing 100% of the respondents.

2. Respondents' Familiarity, Knowledge, and Agreement with Health and Safety Protocols and Controls in Copra Production

A. Respondents have a moderate level of familiarity with health and safety protocols in copra production, with a weighted mean (WM) of 2.89. This indicates that while there is a basic understanding of these protocols, many respondents lack a comprehensive and detailed knowledge, suggesting the need for further education and reinforcement to ensure full compliance and awareness.

B. Regarding proper handling procedures for hazardous materials, the respondents showed a WM of 2.04, which suggests that while some are aware of the procedures, many still lack a comprehensive understanding.

C. The awareness of emergency procedures in case of accidents had a WM of 2.56, indicating that while some workers are aware of the protocols, there is a significant portion that lacks full awareness.

D. The importance of personal protective equipment (PPE) was strongly agreed upon, with a WM of 3.93, reflecting a high level of understanding and recognition of its importance in ensuring safety.

E. Respondents demonstrated moderate knowledge regarding the safe handling and storage of hazardous materials, with a WM of 3.04. This indicates that while the majority have a general understanding of these

practices, there is still room for improvement to ensure consistent and safe application.

F. Awareness of PPE usage was moderate, with a WM of 2.76. Although respondents acknowledge the importance of PPE in ensuring safety, there is a need for further emphasis on its proper usage and benefits to enhance overall compliance and understanding.

G. Knowledge of first aid procedures for common injuries was the lowest, with a WM of 1.96. This result highlights a critical gap in basic first aid awareness among respondents, underscoring the need for targeted training in this area to better prepare workers for common workplace emergencies.

H. Fire safety knowledge, particularly regarding copra drying and the handling of flammable materials, showed limited awareness, with a WM of 2.75. This suggests that additional training and awareness campaigns are necessary to mitigate fire-related risks in copra production.

I. Respondents' awareness of emergency procedures, including responses to electrical hazards and machinery accidents, was moderate, with a WM of 2.55. While some workers are familiar with these protocols, a significant portion still requires further education to ensure full preparedness for potential emergencies.

3. <u>Sources of Information</u>

The majority of respondents rely on co-workers as the primary source of information regarding health and safety protocols in copra production,

highlighting the importance of peer knowledge and informal communication, while local health organizations also play a significant role in promoting safety standards.

4. Recommended Action

As to the recommended action plan, training sessions and management supervision are the most effective strategies, with workshops also playing a significant role. Informational materials, while acknowledged, are considered less impactful, suggesting the need to prioritize more interactive and hands-on approaches to improve health and safety practices.

Conclusion

Based on the findings of the study regarding the copra laborers' awareness of health and safety protocols in Brgy. Lugui, Labo, Camarines Norte, several key conclusions can be drawn:

1. The copra laborers in Brgy. Lugui, Labo, Camarines Norte, are predominantly male, reflecting the physically demanding nature of their work. Most of them belong to middle-age groups, although there are younger and older workers contributing to the labor force. The majority of the laborers have been employed in the industry for over six years, indicating their long-term dependence on copra production as a primary livelihood. Their tasks include a range of activities such as harvesting coconuts, drying copra, and transporting goods to processing centers.

2. The level of awareness among copra laborers regarding health and safety protocols mandated by RA 11058 is generally low. Many laborers lack understanding of their rights and the safety standards outlined in the Occupational Safety and Health Standards. Most of their information comes from informal sources such as community discussions, barangay officials, or occasional local initiatives, with limited exposure to formal training or resources provided by DOLE. Their knowledge of specific safety measures, including the use of personal protective equipment (PPE), emergency procedures, and hazard identification, is notably insufficient.
3. Training sessions and management supervision are highly effective in enhancing copra laborers' awareness of health and safety protocols. Workshops also contribute significantly by providing interactive and practical learning opportunities. While informational materials are acknowledged, they are considered less impactful compared to more engaging, hands-on approaches. Therefore, efforts to improve health and safety should emphasize interactive training and consistent supervision, ensuring laborers acquire both the knowledge and practical skills needed to implement safety protocols effectively.

Recommendations

After examining the conclusions derived from the study, the researchers produced the following recommendations;

1. Future studies could expand to other regions involved in copra production to explore whether workers' knowledge and adherence to health and safety protocols vary depending on the location or regional practices.
2. Researchers may want to assess the impact of more engaging training approaches, like hands-on workshops or practical demonstrations, to better understand how these methods influence workers' understanding and implementation of safety protocols in copra production.
3. A comparative study could examine the effectiveness of various information sources, such as peer learning compared to formal training, in promoting health and safety awareness in the copra industry.
4. Long-term studies could be valuable in tracking how workers' awareness and safety practices evolve over time, offering insights into the sustained impact of ongoing training and supervision on health and safety standards.
5. Future research could benefit from combining both numerical data and qualitative techniques like interviews or group discussions to better capture workers' personal insights and attitudes toward health and safety protocols in copra production.