OCCUPATIONAL SAFETY AND HEALTH PRACTICES IN THE ETHIOPIAN FLORICULTURE SUB-SECTOR (THE TINAW FLOWER FACTORY)

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

A RESEARCH THESIS SUBMITTED TO DEPARTMENT OF MANAGEMNT FOR THE PARTIAL FULFILLMENT OF BACHELOR OF ART

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ADVISORS' APPROVAL SHEET

This is to certify that a thesis on the topic entitled "**Occupational Safety and Health Practices in The Ethiopian Floriculture Sub-Sector (The Tinaw Flower Factory)**" submitted partial fulfillment of the requirements for the BA degree in management; the undergraduate program has been carried out by **Ashenafi Tigstu**, under my supervision. Therefore, I recommend that the student has fulfilled the requirements and hence hereby can submit the thesis.

ADVISOR

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EXAMINERS' APPROVAL SHEET

We, the undersigned, members of the Board of Examiners of the final open defense by **Ashenafi Tigstu**, have read and his thesis entitled "**Occupational Safety and Health Practices in The Ethiopian Floriculture Sub-Sector (The Tinaw Flower Factory)**" and examined the candidate. This is, therefore, to certify that the thesis has been accepted in partial fulfillment of the requirements for the BA degree in management.

Name of Principal Advisor	Signature	Date
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Final approval and acceptance of the thesis is contingent upon the submission of the final copy of the thesis to the department of management.

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Declaration

I, Ashenafi Tigstu, hereby declare that the research titled "Occupational Safety and Health Practices in the Ethiopian Floriculture Sub-Sector: The Tinaw Flower Factory" is my original work. This study has been conducted as part of the requirements for the completion of my BA degree at Wolkite University, College of Business and Economics, Department of Management.

I affirm that this research has not been submitted for any other degree or qualification at any other institution. All sources of information and contributions from other authors have been duly acknowledged in the references section of this thesis.

I take full responsibility for the content of this research and strive to uphold academic integrity and ethical standards throughout the study.

Signature:

Date: April 2025

Location: Wolkite, Ethiopia

Acknowledgment

First and foremost, I would like to express my deepest gratitude to God for granting me the strength, wisdom, and perseverance to complete this research. His guidance has been a constant source of inspiration throughout my academic journey.

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Acronyms

EHPEA: Ethiopian Horticulture Producer Exporters Association

PPE: Personal Protective Equipment

OSH: Occupational Safety and Health

Ksh: Kenyan Shilling

EARI: Ethiopian Agriculture Research Institute

MPS: Minimum Pesticide Standards

CoP: Code of Practice

SPSS: Statistical Package for the Social Sciences

NGO: Non-Governmental Organization

Abstract

This study investigates the occupational safety and health practices in the Ethiopian floriculture sector, focusing specifically on the Tinaw Flower Factory. The rapid growth of Ethiopia's floriculture industry, propelled by government incentives and foreign investment, has raised significant concerns about the health and safety of workers. Despite the potential for economic benefits, many employees face hazardous working conditions, particularly due to exposure to harmful pesticides and inadequate safety measures.

The research employs a mixed-methods approach, combining quantitative surveys and qualitative interviews to assess the current practices regarding occupational safety and health. Key objectives include evaluating the availability and use of personal protective equipment (PPE), analyzing training provisions, and identifying health-related challenges faced by workers. The study reveals alarming gaps in safety protocols and inadequate health services, with many workers experiencing symptoms related to chemical exposure.

The findings underscore the urgent need for improved occupational safety and health standards within the floriculture sector. Recommendations include enhancing the provision of PPE, implementing comprehensive safety training programs, and establishing health monitoring systems. This research aims to contribute to the development of safer working conditions for employees in the Ethiopian floriculture industry, ultimately advocating for adherence to international safety standards.

Keywords: Occupational Safety, Health Practices, Floriculture, Ethiopia, Tinaw Flower Factory, Pesticides, Worker Health.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

According to the Ethiopian Horticulture Producer Exporters Association (2007), Ethiopia's efforts to boost the horticulture sector are anticipated to create breakthroughs in the global flower market. The Association believes that the country could become one of Africa's leading flower exporters within the next five years.

Currently, the Ethiopian government is encouraging foreign investment by facilitating loans with low interest rates, offering a five-year tax holiday, a two-year grace period, and a duty-free machinery import scheme. As a result, a considerable number of foreign investors are expected to enter the floriculture sub-sector. According to the Ethiopian Horticulture Sector Statistical Yearly Bulletin issued in October 2012, the country managed to increase its earnings from floriculture exports to $212.56 million in 2011/2012, up from $184 million in the previous year.

In many countries, however, the increased revenue from floriculture investment often comes at a high price. The global flower industry uses a wide range of pesticides, which have been reported to cause both human health and environmental problems in countries where flower farming began more than a decade ago. In this context, the emerging flower industry in Ethiopia is expected to have low standards for occupational safety and health, including the widespread use of unregistered and harmful pesticides. The industry utilizes a range of imported pesticides in large quantities, often without proper regulation by the Ministry of Agriculture and Rural Development. According to a report by the Ethiopian Agriculture Research Institute (EARI), 96 types of insecticides and nematicides were imported for use on flower farms in 2006, with 18 not listed in the MPS-Code 2006 (the list of registered pesticides in Ethiopia). Similarly, out of 105 imported fungicides, 19 were unregistered. A coordinated system for importing pesticides is not expected to exist in Ethiopia, raising concerns about untracked imports. Furthermore, Shivoga (2004) discusses various issues, including health hazards from unknown effects of pesticides and other agrochemicals, the limited age range of hired workers (primarily young individuals), and the fact that over 75% of workers are expected to be women with insecure jobs. Economic concerns also arise, questioning whether the industry genuinely alleviates poverty. Approximately 500,000 people—50,000 flower farm workers and their families—are expected to rely on the floriculture sector for their livelihoods. The

volume of cut flower exports is anticipated to dramatically increase, from 29,373 tons worth Ksh. 3.6 billion in 1995 to 60,982 tons worth Ksh. 16.5 billion in 2003. Shivoga also highlights environmental challenges, such as the shrinking of Lake Naivasha, which suffers from algal blooms and excessive water abstraction for irrigation and other uses.

In many cases, farm owners are expected to prioritize flower production over the safety and health of their employees. As a result, some workers may feel compelled to abandon their jobs, while many others suffer from regular chemical exposure without proper precautions. Thousands of employees may perform hazardous chemical spraying daily without adequate protective equipment, leading to health issues such as recurrent vomiting and collapse.

Thus, this study was aim to examine the occupational safety and health practices at Tinaw Flower Factory, focusing on issues related to the working conditions of employees, the provision of personal protective equipment, the practice of safety measures, and the availability of safety and health training for employees. The research was also seek to identify the occupational safety and health-related problems faced by farm workers and assess whether the floriculture industry in Ethiopia operates in accordance with international standards.

1.2. Statement of the Problem

According to Dessler (2004), the importance of safety and accident prevention in the workplace is a significant concern for managers for multiple reasons, with one of the most pressing being the alarming rate of work-related accidents. In his analysis, he references a study that estimates workers endure approximately 13.2 non-fatal injuries and 362,200 illnesses each year. This staggering statistic translates into a substantial economic burden, costing businesses and society an estimated total of $171 billion annually. Such figures highlight the critical need for effective safety management practices within organizations to mitigate risks and protect employees.

Furthermore, Tigist (2007) discusses various challenges associated with employment conditions, fundamental rights at work, and the overall safety and health of workers. She argues that while increases in production and profitability are essential for business growth, they should not come at the detriment of workers' well-being. Tigist emphasizes the necessity for a balanced approach that prioritizes human rights and the working conditions of employees. In the context of the Ethiopian floriculture sub-sector, which is anticipated to play a vital role in reducing unemployment and enhancing foreign currency earnings, these issues are particularly pertinent.

Despite the potential benefits of the floriculture industry, significant concerns regarding occupational safety and health persist. Workers in this sector are frequently exposed to hazardous chemicals, particularly pesticides, which pose serious health risks. Additionally, unsafe working conditions are common, leading to further jeopardization of worker health and safety. Compounding these issues is the lack of adequate protective equipment for employees who are directly or indirectly exposed to chemicals, leaving them vulnerable to adverse health effects. Moreover, many farm workers operate under a general lack of awareness regarding the risks associated with their jobs, which can lead to unsafe practices and increased exposure to hazards.

The situation is exacerbated by the absence of labor unions and governmental agencies that could advocate for the rights of flower farm employees and develop policies to protect their welfare. The lack of representation and oversight in this area leaves workers with limited recourse to address safety concerns or improve their working conditions.

In light of these challenges, this research was focus on examining the occupational safety and health practices at Tinaw Flower Factory. The study aims to conduct a comprehensive assessment of the current working conditions, evaluate the effectiveness of safety measures in place, and investigate the provision and utilization of personal protective equipment (PPE) among workers. Additionally, the research was analyze the availability and quality of training related to occupational safety and health provided to employees, of tinaw flower facory.

1.3. Research Questions

This study was aim to answer the following research questions:

1. To what extent employees was aware of the use of hazardous chemicals?
2. Was the flower farm maintain safe work practices and procedures for its employees?
3. What roles the flower farm play to minimize the risks of fatal and non-fatal illnesses resulting from chemical exposure at work?

1.4. Objectives of the Study

1.4.1. General Objective of the study

The general objective of this study was be to examine the practice of occupational safety and health at Tinaw Flower Factory.

1.4.2. Specific objectives

The specific objectives of the study include:

- To assess the current working conditions of employees at the selected flower farm.
- To evaluate the availability and use of personal protective equipment (PPE) among workers.
- To analyze the implementation of safety measures and protocols within the farm.
- To explore the effectiveness of health and safety training programs provided to employees.
- To identify the occupational safety and health-related challenges faced by farm workers.
- To assess the compliance of the floriculture industry with international OSH standards.

1.5. **Significance of the Study**

This research is expected to significantly contribute to the emerging Ethiopian floriculture industry, a sector that has been relatively underexplored. By investigating occupational safety and health practices at Tinaw Flower Factory, the study aims to identify the key safety and health-related challenges faced by farm employees. It was used to assess whether the industry operates in alignment with international standards.

The findings were used provide essential information to both governmental and non-governmental organizations, including farm owners, regarding the occupational safety and health conditions at Tinaw Flower Factory. The results was used to be communicated to all relevant stakeholders, fostering a collaborative effort to address identified issues. Additionally, this study was play a crucial role in raising awareness among farm workers about the safety and health hazards they encounter in the Ethiopian flower industry, empowering them to advocate for better working conditions and safety practices.

1.6. Scope of the study

The study was limited to the Tinaw Flower Factory and it focus on the experiences and conditions of its employees. While it aims to provide insights relevant to the broader Ethiopian floriculture sector, findings may not be generalizable to other industries or regions without further research. The research was employ a combination of qualitative and quantitative methods, including surveys, interviews, and observations, to gather comprehensive data on occupational safety and health practices within the factory.

Overall, the scope of this study aims to address critical gaps in knowledge regarding occupational safety and health in the Ethiopian floriculture sector, ultimately contributing to improved practices and better working conditions for farm employees.

1.7. Limitation of the Study

This study was assessed occupational safety and health practices at Tinaw Flower Factory, focusing on key dimensions that affect worker well-being. It used to examine working conditions, including the work

environment, hours of operation, and associated physical and psychological stresses, to identify potential hazards and areas for improvement. The research was also evaluating the implementation of safety measures, analyzing protocols for handling hazardous materials and emergency response procedures. By assessing the effectiveness of these measures, the study aims to identify gaps that may expose workers to risks.

Additionally, the examination was covering the availability, appropriateness, and usage of personal protective equipment (PPE). This includes evaluating access to essential gear, such as gloves and masks, and training in proper use. Effective PPE usage is vital for mitigating risks from hazardous chemicals. Finally, the availability of occupational safety and health training was explored, assessing the content and effectiveness of programs aimed at educating employees about safety practices and hazard recognition. This comprehensive approach was used to provide a holistic view of safety practices at Tinaw Flower Factory, highlighting current issues and informing recommendations for improvements aligned with best practices in occupational health and safety.

1.8. Organization of the Study

The research was consisting five chapters. The first chapter was including the background of the study, the statement of the problem, basic research questions, objectives of the study, significance of the study, and delimitation of the study. The second chapter was discussed review related literature. The third chapter was present the methods of the study, detailing the type and design of the research, participants, data sources, data collection tools, procedures, and methods of analysis. The fourth chapter was present the results and discussion, summarizing and interpreting the findings. Finally, the last chapter conclusions based on the findings and recommendations was discussed.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

Previous studies related to the occupational safety and health of worker in the floriculture industry in Ethiopia is very rare. Particularly, studies related to pesticide use and pesticide- related health effects on farm workers in the sector are scanty. Besides such inadequacy of studies on floriculture workers, there is no working system or policy to report pesticide poisoning to the authority in the Ethiopian government.

2.1. Definition of Notions in Occupational Safety and Health

Safety programs are oriented toward the reduction of accidents. Heneman et al (2006:688), defines an accident as the "unintentional occurrence of physical damage to an object (such as machinery) or an injury to an individual. Accidents are caused by unsafe employee behaviors and/or unsafe working conditions. However, health programs are more concerned with employee illness than with injury." They also explained, 'occupational health is a technical medical area so that only an overview of environmental health hazards, employee stress, and the physical handicapped employee'. Generally speaking, it is concerned with well-being of all employees and persons in a plant/factory/work place and accordingly deals with conditions and factors that have bearing on health and safety. Some other notions include:

Hazard: to expose to 'danger, risk, chase to accident.'

Safety and Health Hazards: safety is concerned with cute hazards, whereas health is concerned with chronic hazards. An acute effect is a sudden reaction to severe condition. A chronic effect is long term deterioration to a prolonged exposure to a milder adverse condition. Precaution: care or measure taken beforehand against possible danger. Industrial processes often involve the use of chemicals and hazardous materials, which necessitate stringent safety considerations and controls (Jain et al., 2009). Raw materials can be hazardous due to their inherent toxicity, and the various stages of production ranging from raw materials to finished products and by-products can pose serious chemical safety risks. Effective management of chemical storage, handling, manufacturing, and usage requires close supervision from managers, supervisors, and employees.

2.2. Chemical Hazards

Jain et al. (2009:198-203) state that industrial processes often involve the use of chemicals and hazardous materials, necessitating stringent safety measures and controls. The raw materials utilized in industries can

pose risks due to their inherent toxicity. Furthermore, both intermediate and finished products, as well as by-products (including industrial waste), can lead to serious chemical safety issues. Proper storage, handling, manufacturing, and usage of chemicals require vigilant oversight from managers, supervisors, and employees.

2.2.1. Chemical hazards can be categorized as follows:

Solids: This category includes combustible or flammable solids, toxic and corrosive solids (such as radioactive materials), solids that can ignite spontaneously or cause violent reactions (with water or air), and explosive solids or detonators.

Liquids: This group consists of combustible or flammable liquids, as well as toxic and corrosive liquids that can lead to explosions.

Gases: This includes combustible or flammable gases, toxic and corrosive gases, and explosive gases or mixtures of gases.

Chemical exposures are a significant safety issue. Chemicals are reactive, and when combined, they can create new substances with different properties. Some chemicals may be highly flammable or toxic to varying degrees and can corrode other materials. When not properly controlled, these chemicals, which can be useful, may turn into dangerous hazards. In processing plants, immediate exposure to hazardous chemicals is common, highlighting the importance of effective chemical safety leadership.

2.2.2. Harmful Effects of Chemicals

Chemicals can lead to asphyxiation or suffocation. They can irritate the respiratory tract and other critical organs such as the liver and kidneys.

Certain chemicals may induce semi-consciousness or unconsciousness. EHPEA Code of Practice for Sustainable Flower Production

In 2007, the Ethiopian Horticulture Producer Exporters Association (EHPEA) developed the Code of Practice for the export flower and cuttings sectors. While these codes are voluntary industry standards, compliance is recognized as beneficial for farms, employees, the environment, and Ethiopia’s international reputation, leading to mandatory compliance with the Bronze level for export.

2.3. Key Principles in Occupational Safety and Health

According to Alli (2008: 17-19), several key principles underpin the field of occupational safety and health, aimed at ensuring that work environments are safe and healthy. He emphasizes that occupational safety and health is a broad multidisciplinary field, intersecting with areas such as medicine (including physiology and toxicology), ergonomics, physics, chemistry, technology, economics, law, and industry-specific concerns. Despite the diversity of issues involved, certain fundamental principles can be outlined, particularly relevant to the Tinaw Flower Factory:

Establishment of Policies: Occupational safety and health policies must be formulated and implemented at both the national and organizational levels. These policies should be clearly communicated to all stakeholders involved.

National Program Development: A comprehensive national program on occupational safety and health should be created, followed by its implementation, monitoring, evaluation, and periodic review to ensure effectiveness.

Focus on Prevention and Protection: Occupational safety and health initiatives should prioritize prevention and protection, concentrating on primary prevention strategies at the workplace. Work environments should be designed to ensure safety and health.

Importance of Education and Training: Education and training are crucial for fostering safe and healthy work environments. Both workers and employers should be informed about establishing safe working procedures. Trainers need to be equipped with knowledge specific to the industry to effectively address its unique occupational safety and health challenges.

These principles are interconnected, as the collection and dissemination of information on various aspects of occupational safety and health support all activities mentioned. This information is essential for preventing and addressing occupational injuries and diseases, creating effective policies, and ensuring compliance. Education and training rely on accurate information. Although these principles form the backbone of occupational safety and health programs and policies, they are not exhaustive, and more specialized areas have their own corresponding principles. Additionally, ethical considerations, such as individuals' rights to privacy, should be factored into policy development.

2.4. EHPEA Code of Practice for Sustainable Flower Production

In 2007, the Ethiopian Horticulture Producer Exporters Association (EHPEA) took on the responsibility of developing and managing the Code of Practice for the flower and cuttings export sectors. While these

codes are voluntary industry standards, compliance is encouraged due to its benefits for farms, employees, the environment, and Ethiopia's international reputation. As of 2011, adherence to the Bronze level of the code became a mandatory requirement for export.

2.4.1. Objective of the Code of Practice

The goal of the Code of Practice (CoP) is to provide a framework that allows the Ethiopian floriculture sector to attain high performance standards through continuous improvement and sustainable development. This, in turn, enhances overall farm performance and competitive positioning in the market, while promoting safe working practices to safeguard employee wellbeing.

2.4.2. Content of the Code of Practice

The general principles of the CoP establish the minimum acceptable standards for the operation of export flower or ornamental farms in Ethiopia at the Bronze level. This level mandates that farmers implement a basic management system for planning, monitoring, and evaluating key sustainability issues. Additionally, farms are required to adopt safe working practices, protect the environment, and comply with national laws. The code also outlines higher standards at the Silver and Gold levels, with certain markets and individual buyers demanding standards that may surpass these minimum requirements.

The Silver level sets internationally recognized standards for good agricultural practices, environmental protection, and responsible employment practices, aligning with widely used international market labels. The Gold level establishes even higher standards, encouraging farms to exceed sector benchmarks. Farms meeting Gold level criteria are expected to engage in corporate social responsibility, environmental conservation, product quality management, and sector development through participation in industry activities and capacity building.

2.5. Previous Studies

Shivoga (2004), in his article entitled 'Environmental Challenges and State of Knowledge on Floriculture in Kenya' discusses a range of issues including Health hazards such as unknown effects of pesticides and other agrochemicals; the sector only hires limited age group (mainly young people); and more than 75 % of workers are women with unsecured jobs. He also raises some economic concerns and doubts whether the industry is really reduce poverty. Accordingly, about 500,000 people - 50,000 flower farm workers

and their relatives are dependent on the floriculture sector for their livelihoods. The volume of cut flower export increases dramatically that is 29,373 tons of cut flowers worth Ksh. 3.6 billion in 1995 to 60,982 tones, which worth Ksh. 16.5 billion in 2003. He further discusses the environmental challenges brought as a result of the flower industry. Shivoga further explains Lake Naivasha is shrinking and its southern shores are blighted with algal bloom and excessive abstraction of water for irrigation, industrial and domestic use. The worst case with regards to the challenges of the sector relates to change in fish species from predominantly Tilapia to Common Carp.

Mulugeta (2009), states that despite the growth of the floriculture industry in Ethiopia, environmental concerns are growing, because floriculture requires intensive use of chemical fertilizers and pesticides and needs huge amounts of water than conventional farming in addition to thoroughly monitored waste management system. He claims that disposal of waste including

Chemicals are indeed threat to the environment unless proactive prevention measures are put in place. In spite of some gaps in the regulatory framework and although there are problems of effective regulation of the floriculture sector, Ethiopia has developed policies and legislation to protect and preserve the environment. The government is thus expected to empower its regulatory offices and give due attention to the adverse environmental impact which is already observable rather than offering priority to short-term income generation at the expense of the environment.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Research methodology serves as the backbone of any scholarly inquiry, providing the framework within which the study is conducted. It encompasses the strategies, techniques, and tools utilized to collect and analyze data, ensuring the validity and reliability of the findings. This chapter presents a detailed overview of the research design and methodology employed in the investigation of occupational safety and health practices specifically at the Tinaw Flower Factory, located in the Gurage Zone of central Ethiopia. The chosen methodology reflects a commitment to a comprehensive understanding of the complexities surrounding occupational safety and health in this vital agricultural sub-sector.

3.1. Research Design

The research adopts a comprehensive descriptive analysis to explore occupational safety and health practices specifically within the Tinaw Flower Factory, located in the Gurage Zone of central Ethiopia. A mixed-methods approach is employed, integrating both qualitative and quantitative research methodologies to provide a nuanced understanding of the subject matter. This dual approach allows for statistical analysis of safety practices while also capturing the rich, contextual details of workers' experiences and perceptions within this single factory setting.

Focusing exclusively on the Tinaw Flower Factory enables an in-depth examination of the specific challenges and practices that characterize occupational safety and health at this facility. The factory's operational dynamics are influenced by local agricultural practices, climatic conditions, and socio-economic factors unique to the Gurage Zone. These factors can affect the types of rose varieties produced and the specific pesticides and chemicals used. Variations in climate and soil conditions within the region may also influence the health and safety practices implemented by farm managers, as different pest challenges may necessitate tailored approaches to pest control and corresponding safety protocols for workers.

To effectively gather the necessary data, a variety of data collection instruments were utilized. Structured questionnaires provided quantitative data derived from respondents' answers, while

qualitative methods such as interviews, focus group discussions (FGDs), and direct observations offered deeper insights into the attitudes and awareness of both managers and workers regarding occupational safety and health. The quantitative aspect aimed to yield statistical insights into the prevailing safety practices at the Tinaw Flower Factory, while the qualitative component sought to uncover the contextual factors influencing these practices.

By employing observational checklists, the researcher was able to conduct real-time assessments of safety practices within the factory environment. This multifaceted methodology aims to illuminate critical issues surrounding occupational safety and health, contributing to a more comprehensive understanding of the challenges and opportunities specific to the Tinaw Flower Factory in the Ethiopian floriculture sector.

3.2. Sample and Sampling Techniques

3.2.1. Overview of the Flower Farming Sector

According to the Ethiopian Horticulture Producer Development Agency, there are currently 83 flower farms operating in Ethiopia, comprising 64 rose flower farms, 13 summer flower farms, and 6 cutting flower farms. For this study, the sample size was determined exclusively from the 64 rose flower farms, as they represent the largest segment of the industry. To ensure that the findings are representative, seven farms were selected using a cluster sampling technique, which is appropriate for achieving a sample that reflects more than 10% of the population.

3.2.2. Selection Criteria

The selected rose flower growers are geographically located in both lowland and highland areas, where the production of roses varies in terms of the types of varieties cultivated and the pesticides employed. Specifically, three farms were chosen from the highland region Flowerama Plc, Saron Rose Agrofarm Plc, and Selam Flowers Plc and four from the lowland area Joytech Plc, Rainbow Colours Plc, Minaye Flowers Plc, and ZK Flowers Plc.

The respondents were categorized into four groups: Greenhouse Supervisors and workers, Scouts, Spray (Irrigation) team leaders and workers, and Packing workers. This categorization facilitates a comprehensive analysis of the various roles within the flower farms, allowing for a

deeper understanding of the occupational safety and health practices specific to each group. By examining the perspectives of different job roles, the study aims to highlight the unique challenges faced by each category of workers, thereby fostering a more targeted approach to improving safety practices.

3.3. Instruments of Data Collection

3.3.1. Data Collection Tools

The research employs both qualitative and quantitative methodologies to effectively gather data. A range of data collection instruments was utilized, including questionnaires available in both Amharic and English, semi-structured interviews, focus group discussions, and observational checklists. Prior to the actual data collection phase, a pilot test was conducted to refine the questionnaires, ensuring clarity and effectiveness in capturing the required information.

The structured questionnaires were designed to encompass various sections: the first sought general demographic data, the second aimed to gather detailed insights regarding working conditions and safety practices, and the final section allowed for additional comments from respondents. A total of 110 farm workers across the seven selected flower farms completed these questionnaires, providing a robust dataset for analysis.

3.3.2. Qualitative Approaches

Focus group discussions and semi-structured interviews were also employed to gather qualitative data on various aspects of the working environment. These discussions explored the conditions faced by workers, the provision and use of Personal Protective Equipment (PPE), salary structures, benefits, training opportunities, health provisions, and overall occupational safety and health practices. The inclusion of diverse voices through these qualitative methods enriches the study, allowing for a more nuanced understanding of the complex interplay between occupational health practices and the socio-economic context of the workers.

Additionally, observation checklists were used to directly assess working conditions and safety practices while workers were engaged in their duties. This comprehensive approach ensures a

thorough examination of the occupational safety and health landscape within the flower farms, facilitating the identification of critical issues and areas for improvement.

3.4. Procedures of Data Collection

3.4.1. Data Collection Process

The data collection process involved multiple methodologies to ensure a robust and comprehensive dataset. The researcher dispatched questionnaires to farm workers in the Amharic version to maximize understanding and response accuracy. For the semi-structured interviews, interview checklists were prepared for the seven farm managers, focusing on their perspectives regarding occupational safety and health practices within their respective farms.

3.4.2. Focus Group Discussions

In addition to individual interviews, focus group discussions were held with groups of workers in at least three of the farms to gain deeper insights into their experiences and challenges. These discussions provided a platform for workers to share their views on safety practices and conditions, contributing to a more holistic understanding of the issues at hand. An observation checklist was also prepared to systematically evaluate the working conditions and occupational safety practices while workers performed their duties.

The collection of qualitative data through interviews and focus groups was complemented by quantitative data gathered from the questionnaires. This triangulation of data sources enhances the reliability of the findings and provides a comprehensive understanding of the occupational safety and health practices within the flower farms. Furthermore, this approach allows for cross-validation of data, increasing the credibility of the research findings.

3.5. Methods of Data Analysis

3.5.1. Quantitative Analysis

The data were analyzed using SPSS descriptive statistics, facilitating a clear interpretation of the quantitative findings. The results were displayed in absolute figures, percentages, means, and standard deviations, presented through charts, graphs, and tables to enhance clarity and

accessibility. In addition to the quantitative analysis, qualitative information obtained from focus group discussions, observations, and informal interviews were thematically analyzed to provide context and depth to the findings.

3.5.2. Thematic Analysis

The thematic analysis of qualitative data involved identifying common patterns and themes that emerged from the discussions. This approach not only highlights the recurring issues faced by workers but also sheds light on their perceptions and attitudes toward occupational safety and health practices. By integrating both quantitative and qualitative data, the study aims to provide a well-rounded understanding of the occupational safety and health practices in the Ethiopian floriculture sector, highlighting key areas for intervention and improvement.

Moreover, the analysis process was include a consideration of the socio-economic implications of the findings. Understanding how economic factors influence safety practices can provide valuable insights into potential areas for policy intervention and improvement. This focus on socio-economic context aligns with the broader goals of enhancing worker welfare and promoting sustainable practices within the floriculture industry.

3.6. Fieldwork and Study Setting

3.6.1. Research Timeline

The research process followed established procedures for writing an BA thesis, ensuring a systematic and rigorous approach throughout the study. The entire duration of the research spanned from August 2025 to April 2025, focusing on the Tinaw Flower Factory located in the Gurage Zone of Ethiopia.

During this period, comprehensive data was collected and analyzed to assess occupational safety and health practices within the factory. The research design incorporated quantitative methods, allowing for a thorough examination of the working conditions and employee experiences.

3.6.2. Engagement with Participants

The chosen farms represent a diverse cross-section of the rose-growing industry, allowing for an exploration of the various occupational safety and health challenges faced by workers. The geographical diversity of the selected farms also enriches the study's findings, providing insights

into how different environmental conditions and farming practices influence occupational safety and health practices. Additionally, the study setting allows for an examination of the impact of local policies and regulations on farm operations, further contributing to the understanding of occupational health dynamics.

During the fieldwork, the researcher engaged actively with farm management and workers, fostering an environment of trust and openness. This interaction was crucial for obtaining candid responses and insights into the realities of occupational safety practices on the ground. The researcher's presence also facilitated immediate observations of workplace conditions, enriching the data collection process and enhancing the overall research quality.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

This chapter presents the findings and discussions derived from data collected at the Tinaw Flower Factory, a key player in Ethiopia's floriculture sector. The factory employs a total of 956 individuals, comprising 714 female and 242 male employees. Among these, 53 males and 44 females are classified as professional employees, while the remainder falls into non-professional roles. The analysis encompasses several crucial aspects, including the characteristics of respondents, occupational safety and health practices, the types of flowers produced, and the overall working conditions within the factory. Additionally, the chapter explores the logistics of flower distribution to international markets, including options for direct export to regions such as Arabia, Qatar, Saudi Arabia, Korea, and Asia. By systematically examining these areas, the chapter aims to illuminate significant trends, gaps, and insights that influence worker safety, health, and operational practices at Tinaw Flower Factory.

4.1. Characteristics of Respondents

The demographic profile of employees at the Tinaw Flower Factory is crucial for understanding the labor dynamics within the facility. The factory employs a diverse workforce, with a notable gender disparity that sees a predominance of female workers. The total number of employees stands at 956, of which 714 are female, representing approximately 74.7% of the workforce. In contrast, male employees account for 242, making up about 25.3%. This significant gender imbalance highlights the critical role women play in the labor force within the Ethiopian flower industry, often taking on various roles from production to packing.

4.1.1. Gender Distribution of Employees

The gender distribution at Tinaw Flower Factory is indicative of broader trends in the floriculture sector in Ethiopia, where women are frequently preferred for labor-intensive positions. This preference is often rooted in societal perceptions that women can be employed for lower wages and may demonstrate a higher willingness to accept unfavorable working conditions. The

demographic data suggests a workforce that is not only predominantly female but also characterized by a substantial number of young individuals.

Table 1: Demographic information of emlpoyees

Gender	**Frequency**	**Percentage**
Male	242	25.3
Female	714	74.7
Total	956	100

4.1.2. Professional vs. Non-Professional Employees

Among the total workforce, there are 53 male and 44 female professional employees, which highlight a small but significant contingent of skilled workers within the factory. However, the majority of employees—specifically, those who are classified as non-professional—face various challenges associated with temporary or casual employment. The presence of professional employees is essential for maintaining quality standards and operational efficiency, yet the reliance on a larger non-professional workforce raises concerns about job security and the potential for exploitation within the labor market.

Table 2: Employment Status

Employment Status	**Gender**	**Frequency**	**Percentage**
Professional	Male	53	5.5
	Female	44	4.6
Total Professional		97	10.2
Non-Professional	Male	189	19.8
	Female	670	70.0
Total Non-Professional		859	89.8
Total Workforce		956	100

Among the total workforce of 956 employees at the Tinaw Flower Factory, there are 53 male and 44 female professional employees, highlighting a small but significant contingent of skilled workers within the factory. This professional group constitutes approximately 10.2% of the total

workforce. The majority of employees, specifically those classified as non-professional, face various challenges associated with temporary or casual employment. The presence of professional employees is essential for maintaining quality standards and operational efficiency, yet the reliance on a larger non-professional workforce comprising 859 employees or 89.8% raises concerns about job security and the potential for exploitation within the labor market.

4.1.3. Age and Education Levels

Further analysis of the workforce reveals that a considerable portion of employees are young, often with limited formal education. Many workers are primary school dropouts or have completed only a few grades of formal schooling. This lack of educational attainment not only restricts their employment options but also impacts their awareness of occupational health and safety practices. The implications of this educational gap are profound, as it may hinder the ability of workers to advocate for their rights and seek improvements in their working conditions.

Table 3;Distribution of Respondents by Sex

Gender	***Frequency***	***Percentage***
Male	64	58.2
Female	46	41.8
Total	**110**	**100**

Most respondents (84.5%) are under the age of 30, reflecting the industry's reliance on young labor to meet demands for active and energetic workers.

Table 4: Distribution of Respondents by Age

Age Group	**Frequency**	**Percentage**
< 20	26	23.6
21 - 25	46	41.8
26 - 30	21	19.1
31 - 40	13	11.8
41 - 50	3	2.7
> 50	1	0.9

Total	**110**	**100**

Regarding marital status, 52.7% (58) of respondents are married, while 41.8% (46) are single. Most female respondents are young and unmarried, often willing to work long hours for minimal overtime compensation. All respondents, except those on the spray team, indicated that they work eight hours per day. The spray teams typically work fewer hours due to the nature of their tasks, with monthly salaries ranging from 600 to 800 ETB.

Table 5: Level of Education

Education Level	Frequency	Percentage
Degree & Above	1	0.9
Diploma	10	9.1
8 – 12	38	34.5
1 – 7	26	23.6
Below 1	24	21.8
Missing	11	10.0
Total	**110**	**100**

The types of work performed by respondents are categorized based on exposure to chemicals: Spray & Irrigation, Scout, Greenhouse Supervisor & Harvest, and Packing. The distribution is as follows: 40.9% (45) are in Spray & Irrigation, 6.4% (7) are Scouts, 41.8% (46) are Greenhouse Supervisors & Harvesters, and 6.4% (7) work in Packing.

Table 6:Working Experience of Respondents

Experience	Frequency	Percentage
Below 1 Year	33	30
1 - 3 years	22	20
3 - 5 years	22	20
Above 5 years	26	23.6
Missing	7	6.4
Total	**110**	**100**

4.2. Types of Flowers Produced

At the Tinaw Flower Factory, a variety of flower types are cultivated and prepared for export, categorized primarily into three color classes: red, white, and yellow. Each class encompasses distinct varieties, each with its own market appeal and cultivation requirements.

4.2.1. Red Flower Class

The red flower class is known for its vibrant and appealing varieties, which include upper-class types such as Bergendi and Tekezei flowers. These varieties are especially sought after in international markets for their quality and aesthetic appeal. Bergendi flowers are celebrated for their robust stems and longevity, making them a favorite for bouquets and floral arrangements. Tekezei flowers, on the other hand, are recognized for their unique coloration and fragrance, adding value to mixed floral displays. The production of these red flower varieties aligns with market demands, particularly in the Middle Eastern markets, where high-quality flowers are in constant demand.

4.2.2. White Flower Class

The white flower class includes varieties like Atena and Piso flowers, which are favored for their elegance and versatility. White flowers often symbolize purity and simplicity, making them popular for weddings, corporate events, and other formal occasions. Atena flowers are particularly notable for their refined appearance and are often used in high-end floral arrangements. Piso flowers, known for their resilience and adaptability, thrive in various growing conditions, making them a reliable choice for production.

4.2.3. Yellow Flower Class

The yellow flower class consists of varieties such as Monok, Neworliness, and Samantem flowers. These flowers are characterized by their bright and cheerful hues, appealing to a broad market segment. Monok flowers are recognized for their vibrant color and are often used in celebratory arrangements. Neworliness flowers are valued for their longevity and unique petal structure, while Samantem flowers are appreciated for their fragrance and visual appeal.

Collectively, these yellow varieties contribute to the factory’s reputation for quality and diversity in floral offerings.

4.3. Export Logistics and Market Reach

The logistics of flower distribution from the Tinaw Flower Factory are crucial in determining the factory's success in international markets. Flowers produced at the factory are packed into air cargo and exported primarily to the Netherlands, which serves as a key hub for flower distribution to various global markets. This strategic positioning allows the Tinaw Flower Factory to leverage the Netherlands' established floral trade networks, facilitating access to clients in regions such as Arabia, Qatar, Saudi Arabia, Korea, and Asia.

4.3.1. Air Cargo and Direct Market Access

The use of air cargo for transporting flowers is essential for maintaining the freshness and quality of the products upon arrival in international markets. Given the perishable nature of flowers, efficient logistics and timely delivery are paramount. The factory employs rigorous packing standards to ensure that flowers are well-protected during transit, minimizing the risk of damage and spoilage. This commitment to quality not only enhances customer satisfaction but also strengthens the factory's competitive positioning in the global market.

4.3.2. Market Opportunities in Asia and the Middle East

The demand for high-quality flowers in Asian and Middle Eastern markets continues to grow, driven by cultural preferences for floral displays in celebrations, weddings, and corporate events. The Tinaw Flower Factory’s diverse range of flower types positions it favorably to capitalize on these market trends. By focusing on quality production and effective logistics, the factory can enhance its market presence and explore new opportunities for expansion in these lucrative regions.

4.4. Occupational Safety and Health Practices

This section focuses on the occupational safety and health practices at the Tinaw Flower Factory, examining critical areas such as employment conditions, wages and benefits, safety measures, training provisions, and the availability of health services and facilities.

4.4.1. Employment Conditions

The employment structure at Tinaw Flower Factory reveals a significant reliance on temporary and casual labor. The majority of respondents (51%) are classified as temporary employees, with 32% working as daily laborers and only 17% holding permanent positions. This employment structure raises critical concerns about job security and the rights of workers. Focus group discussions highlighted a prevailing preference among workers for temporary or daily contracts, as many believe this arrangement allows them to evade income tax deductions that would accompany formal employment. While this may appear beneficial in the short term, such contracts fundamentally compromise job security and employee rights.

The lack of permanence in employment allows employers the flexibility to dismiss workers at will, often without prior notice or any form of severance benefits. This precarious employment situation undermines the financial stability of workers and raises ethical concerns regarding labor practices within the industry. Furthermore, the combination of temporary employment and associated vulnerabilities can lead to a cycle of exploitation, where workers are left without essential protections and are unable to advocate effectively for their rights. This situation underscores the critical need for reform in employment practices to ensure fair treatment and adequate protections for all workers in the sector.

4.4.2. Provision and Use of Personal Protective Equipment (PPE)

The provision of Personal Protective Equipment (PPE) at Tinaw Flower Factory is critically low. Essential PPE includes gloves, masks, goggles, and protective clothing, yet many workers reported using old or no gloves at all. This lack of adequate protective gear places workers at

significant risk, especially given the nature of their work, which often involves exposure to hazardous chemicals.

Table 7: Provision of Glovesn and mask usage

Provision of Gloves usage		
Response	**Frequency**	**Percentage**
Strongly Disagree	26	23.6
Disagree	11	10.0
Undecided	5	4.5
Agree	47	42.7
Strongly Agree	9	8.2
Total	**110**	**100**
Provision of Masks		
Response	**Frequency**	**Percentage**
Strongly Disagree	41	37.0
Disagree	3	2.7
Undecided	4	3.6
Agree	15	13.6
Strongly Agree	20	18.2
Total	**110**	**100**

The low provision of gloves and masks indicates a serious oversight in ensuring worker safety. The lack of awareness among workers about the importance of using PPE exacerbates health risks. Many workers underestimate the dangers of chemical exposure they face daily, which can lead to serious health issues over time. This highlights the necessity for comprehensive training programs focused on occupational health and safety, which would educate workers about the risks they face and the importance of using protective equipment.

4.4.3. Health Hazards

The majority of workers reported symptoms related to chemical exposure, including headaches, skin issues, and respiratory problems. Notably, 47% of respondents experienced minor health problems, while the health services provided by the factory were deemed inadequate.

Table 8: Provision of Health Services

Response	Frequency	Percentage
Strongly Dissatisfied	46	41.8
Dissatisfied	19	17.3
Neutral	12	10.9
Satisfied	14	12.7
Strongly Satisfied	15	13.6
Total	**110**	**100**

These findings raise critical concerns regarding the overall health and safety culture at the Tinaw Flower Factory. The inadequacy of health services suggests that workers may not receive timely medical attention, which could exacerbate their health conditions stemming from chemical exposure and unsafe working practices. The significant percentage of workers who reported dissatisfaction with health services reinforces the need for improvements in medical care and health monitoring within the factory.

4.5. Discussion

The findings from this study reveal significant gaps in occupational safety and health practices at Tinaw Flower Factory. While the sector generates employment opportunities, many workers face unsafe working conditions and inadequate health protections. Workers frequently encounter exposure to harmful chemicals without adequate protective measures, underscoring the urgent need for improved occupational safety and health practices.

Despite a high turnover rate, many workers remain in precarious positions, reflecting the lack of formal contracts and employee rights. The study highlights an urgent need for comprehensive training and awareness programs aimed at mitigating health risks and improving working conditions in the industry. The reliance on temporary labor not only undermines job security but

also prevents workers from accessing benefits that could provide necessary support in times of need. This precarious employment situation is particularly concerning given the potential health risks associated with their work environment.

Moreover, the provision and use of PPE are critically insufficient, contributing to the ongoing health hazards faced by workers. The lack of awareness regarding the importance of PPE exacerbates these risks, highlighting the pressing need for comprehensive training and awareness programs aimed at educating workers about the potential dangers associated with chemical exposure and the proper use of protective equipment.

In conclusion, the results from the Tinaw Flower Factory underscore the urgent need for comprehensive reforms in occupational safety and health practices. The findings point to the necessity of establishing more permanent employment contracts, enhancing the provision of PPE, and improving health services available to workers. Additionally, ongoing training and education initiatives are essential to foster a culture of safety within the workplace. By addressing these critical issues, stakeholders can work toward creating a safer and healthier working environment for all employees in the Ethiopian floriculture sector. The insights gained from this research are not only relevant to the Tinaw Flower Factory but also have broader implications for the entire industry, underscoring the need for systemic changes to protect the health and safety of agricultural workers across Ethiopia.

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATIONS

This study examined occupational safety and health practices at Tinaw Flower Factory, focusing on the conditions faced by workers in the Ethiopian floriculture sector. To achieve the study's objectives, various data collection methods were employed, including questionnaires, interviews, and focus group discussions, supplemented by relevant secondary sources. The quantitative data were analyzed using table. The following conclusions and recommendations are drawn from the findings of this research.

5.1. Conclusion

The results indicate that Tinaw Flower Factory provides job opportunities predominantly for young individuals, with a significant majority of respondents under the age of 30. Many of these workers either completed primary school or dropped out of secondary school, reflecting a low level of educational attainment. The majority are employed under temporary or laborer terms, leading to a lack of job security that exposes them to arbitrary dismissal and inadequate rights concerning occupational safety and health. Many workers are recruited without legally binding employment contracts, leaving them vulnerable to exploitation and unable to defend their rights through unions or worker committees.

The working conditions at Tinaw Flower Factory fall significantly below the standards set by the Ethiopian Horticulture and Plant Protection Authority (EHPEA) Code of Practice for Sustainable Flower Production (2011). Specifically, the provision of Personal Protective Equipment (PPE) across the surveyed farms was found to be inadequate. This neglect endangers the lives of many workers who operate in high-risk environments without proper safety gear. According to EHPEA

guidelines, all workers handling pesticides should be equipped with appropriate PPE, including respirators, gloves, and protective clothing. However, all surveyed farms only achieved a bronze rating, indicating they met minimum requirements, yet failed to sufficiently provide essential safety equipment, such as functioning respirators.

Health-related issues were prevalent among workers, with many reporting symptoms associated with chemical exposure, including severe headaches, nausea, skin diseases, and reproductive health problems. The farms have made minimal efforts to address these health concerns. Additionally, while the EHPEA Code of Practice mandates regular medical check-ups for pesticide workers, compliance was lacking, with few farms conducting necessary blood tests or transferring workers exposed to hazardous chemicals.

Training and education on safety practices were found to be severely inadequate. Although the CoP requires orientation and formal training for farm safety officers and workers, the farms demonstrated little commitment to implementing these educational requirements. Furthermore, basic amenities such as clean drinking water, toilet facilities, and first aid services were insufficient, despite the CoP stipulating their provision.

To enhance the occupational safety and health conditions for workers, it is essential for the employer to develop, document, and implement comprehensive OSH policies aligned with CoP standards. Despite some farms having OSH policies, there was a lack of practical implementation, indicating a focus on production and profit at the expense of worker welfare. Additionally, there were no active committees to address OSH risks, and only one farm displayed a notice regarding re-entry times after pesticide spraying.

Overall, the lack of adequate training, support for personal development, and essential safety measures poses significant risks to workers' health and safety. The failure to provide proper PPE and the constant exposure to hazardous chemicals could lead to severe health issues and environmental damage. Many workers do not consistently follow safety protocols, exacerbated by the inadequate provision of safety equipment.

5.2. Recommendations

To improve occupational safety and health for workers at Tinaw Flower Factory and across the nation, the following recommendations are made:

- Establish functional occupational health and safety committees at the farms.
- Ensure the regular provision of adequate PPE for all farm workers.
- Provide milk or other nutritional support instead of cash to the spray team to mitigate health risks associated with pesticide exposure.
- The government should initiate forums for stakeholders to discuss occupational safety and health issues at both national and organizational levels, aiming to address the social and environmental challenges in the sector.
- Flower farms and government bodies must work collaboratively to protect workers' rights.
- Create conducive working conditions and environments for all workers.
- Implement regular occupational health and safety training for employees.
- Organize awareness-raising programs to educate workers about their rights and human rights principles.
- Develop and actively implement comprehensive OSH policies that ensure the safety and health of all workers.

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APPENDIX
WOLKITE UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF MANAGEMENT

Questionnaire to be completed by Farm Workers at Tinaw Flower Factory

This questionnaire is designed to gather relevant information for a research study entitled **'occupational safety and health practices in the Ethiopian floriculture sub-sector (the Tinaw flower factory)'** this study is part of the requirements for an BA degree. I kindly request you to complete this questionnaire and provide any additional information as needed. Please note that your responses was be kept confidential and it used solely for the purposes specified.

Thank you in advance for your cooperation

General instruction

No need of writing your name

Put (√) mark for alternative answer by reading carefully

Write your name answer on the spaces to provided personal information.

Part I: background information of the respondents

Part I: General Information

1. Sex: Male ☐ Female ☐

2. Age: < 20 ☐ 21-25 ☐ 26-30 ☐ 31-40 ☐ 41-50 ☐ > 50 ☐

3. Marital Status: Single ☐ Married ☐ Divorced ☐ Widowed ☐

4. Residence (City/Region/Zone):_____

5. Educational Status: Degree and Above ☐ Diploma ☐ 8 – 12 ☐ 1 - 7 ☐ < 1 ☐

6. Type of Work:_____

7. Years of Service:_____

8. If you are a permanent employee, what is your monthly salary? _____

9. If you are a daily laborer, what is your daily wage?_____

Part II: Specific Information

10. How many hours do you work each day? 8 hr ☐ ½ day ☐ 8 hr ☐

11. If you work over eight hours, do you receive extra pay for the additional hours?

Yes ☐ No ☐ I Don't Know ☐

12. Does your work involve handling chemicals? Yes ☐ No ☐ Don't Know ☐

13. If yes, please specify the types of chemicals you work with:

_____

14. The farm provides protective gloves.Agree☐ Strongly Agree☐ Strongly Disagree ☐Undecided ☐

15. The farm provides protective masks for chemical sprayers.

a. Strongly Agree ☐ Agree ☐ Undecided ☐ Disagree ☐ Strongly Disagree ☐

16. The farm provides hats. Strongly Disagree ☐ Disagree ☐ Undecided ☐ Agree☐ Strongly Agree ☐

17. The farm provides training related to your work.

Strongly Disagree ☐ Disagree ☐ Undecided ☐ Agree ☐ Strongly Agree ☐

18. How satisfied are you with the health services provided by the farm?

Very Dissatisfied ☐ Dissatisfied ☐ Neutral ☐ Satisfied ☐ Very Satisfied ☐

19. How satisfied are you with the farm's health and safety benefits apart from your compensation?

Very Satisfied ☐ Satisfied ☐ Neutral ☐ Dissatisfied ☐ Very Dissatisfied ☐

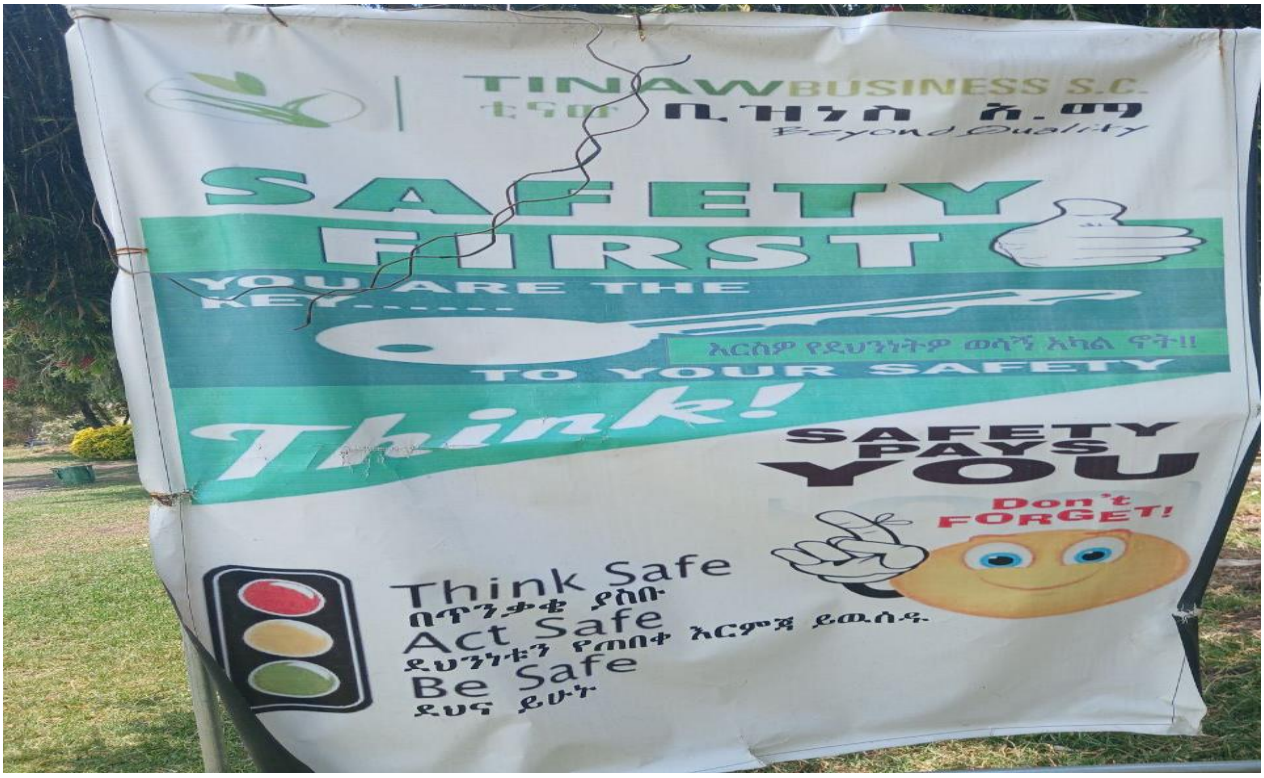
20. Have you received any medical attention for health conditions? Yes ☐ No ☐

21. Are you currently facing any health-related problems? Yes ☐ No ☐

22. If yes, what types of health issues are you experiencing?

Joint Pain ☐ Reproductive Diseases☐

Skin Diseases ☐ Nerve Diseases ☐ Other (please specify): _____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Beyond Quality
SAFETY FIRST
YOU ARE THE KEY - - - - - -
እርስዎ የደህንትዎ ወሳኝ አካል ኖት!!
TO YOUR SAFETY
Think!
SAFETY PAYS YOU
Don't FORGET!
Think Safe
በጥንቃቄ ያስቡ
Act Safe
ደህንነቱን የጠበቀ እርምጃ ይውሰዱ
Be Safe
ደህና ይሁኑ