



**Policies into Practice: A KAP Survey to investigate the Policies regarding Occupational  
Safety and Health of Labourers working in Brick Kilns of Bhaktapur**

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A Dissertation

Submitted to

Kathmandu Univaersity

In Partial Fulfillment of the Requirement for the  
Degree of Bachelor in Community Development

October 2023

### **APPROVED**

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## DECLARATION

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## **ABSTRACT**

Brick kilns in Nepal depend highly upon manual labour. Use of modern technologies and equipment is rarely seen. Additionally, the brick kilns demand a large number of workers. In such a labour-intensive workplace, addressing Occupational Safety and Health (OSH) policies is a major responsibility of the enterprise.

This paper intends to explore those policies and their implementation in real-life situations. It focuses on the matters of OSH because in understanding the nature of the work, a labourer working at a brick kiln faces a lot of risks and hazards. The main purpose of this paper is to study the present scenario of brick kiln workers to determine the facilities they have been getting. These facilities are provisions stated by Government of Nepal in national laws. Data for this study have been collected from two primary and secondary sources. Primary sources include KAP surveys, and secondary sources includes various research papers, journals, reports, articles, etc. Findings suggest that labourers in brick kilns have had some understanding and a positive attitude regarding OSH policies, but they were not being implemented in the factories themselves.

This paper highlights the practical gaps in implementation of policies to practice, and advocates for proper execution of those policies which will further help to ensure better health facilities and security of the workers in brick kilns.

**Keywords:** Brick Kiln, Labourer, Workers, Occupational Safety and Health

## **ACKNOWLEDGEMENTS**

First, I wish to express my sincere gratitude to Kathmandu University School of Arts for giving me an opportunity to undertake research of my interest on my own. This research has added a significant learning to my academic journey.

Next, I would like to convey my deepest gratitude to Professor Megh Raj Dangal who has been my primary supervisor. In every phase of this research, his proper guidance and supervision helped to successfully shape this report.

I am also sincerely grateful to Dr. Andrew South and Dr. Clifton Farnsworth for their continuous efforts and advice that supported me to move forward with my paper. Their valuable feedback and suggestions were one of the essential parts in drafting this report.

My special thanks and appreciation go to Mr. Latshering Glan Tamang who helped me with innovative ideas to make my research more attractive. His kindness in willingness to help me whenever I had some issues and his encouragement to try and learn innovative ideas has supported me shape this design of study.

I would also like to thank my friends from KU and BYU. My wonderful group members, Phobe Barahi, Aakriti Kayastha, and Bikesh Yadav were always there as a support system and have been responsible in making this journey a fun one.

Finally, I am extremely grateful to all the participants who took their valuable time to share their thoughts and experiences with me.

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### **Acronyms**

COPD- Chronic Obstructive Pulmonary Disease

DoLIDAR- Department of Local Infrastructure Development and Agricultural Roads

FAIR- Integrated Programme on Fair Recruitment

GDP- Gross Domestic Product

GoN- Government of Nepal

HIV/AIDs- Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome

ILO- International Labour Organization

LifE- Labour Market Information and Employment Services

OSH- Occupational Safety and Health

SNRTP- Strengthening National Rural Transport Programme

TSP- Total Suspended Particles

UV- Ultraviolet

WHO- World Health Organization

WiF- Work in Freedom

## **Chapter 1: Introduction**

### **1.1. Background**

Occupational Safety and Health (OSH) is concerned about ensuring the safety, health, and welfare of workers by determining vulnerabilities and providing adoptive measures to overcome work-related adversities. It is a serious matter of concern faced worldwide. As per the latest global data from International Labour Organization (ILO), it estimates 2.78 million work-related deaths recorded every year, of which 2.4 million are related to occupational diseases (International Labour Organization, n.d.). To address such issues, OSH can be an effective tool that bridges work deficit through assessment of work-related problems and measures that can help to reduce vulnerability of hazards.

Addressing such issues, the Government of Nepal has enforced concepts of OSH through Labour Act, 2017 (2074). The Act has highlighted issues like provisions relating to working hours, leave, insurance, and has a separate Chapter dedicated to provisions relating to occupational safety and health. Nepal has also ratified 11 ILO Conventions, which focuses on promoting employment-centric inclusive growth, improving labour market governance and industrial relations, and promoting fundamental principles and rights at work (ILO, n.d.).

Even after acknowledging the issues regarding OSH, at times the safety of labourers is ignored at the workplace. In comparison to other fields, the industrial sector of Nepal is often the main area of concern that requires most of the attention. This includes brick kilns as it is one of the largest labour-intensive work areas in the country. The demand for bricks has experienced a dramatic rise since the 2015 Earthquake for reconstruction purposes. While increased urbanization has also been a huge contributor to boost the economic growth of brick manufacturers as bricks are a primary building material in many parts of Nepal. It is estimated that around 1,100 Brick kilns are in operation all over Nepal with the production of 15,000 to 50,000 bricks per day. Within Kathmandu Valley, there are more than 200 brick kilns operating (Health Research and Social Development Forum, 2016). Brick Kilns are a seasonal industry that employs migrant and seasonal labourers. There are four activities to prepare a brick which includes; preparing mud and laying bricks, carrying raw bricks to kiln, working inside the chimney, and carrying out cooked bricks. Later, these bricks are loaded in trucks and transported to other areas for

distribution. While undergoing these activities, the potential hazards posed to the labourers are physical, chemical, biological, and psychological.

Risks in industry sectors for various factories might be different as per the nature of work that labourers must perform. Saying that, even within the brick factory, it is not compulsory that all workers have the same kind of risks. The kind of physical hazards that the labourers working in chimney area and lifting heavy weights might not be experienced by the drivers who transport the bricks. Similarly, the definition of psychological hazards can be different for every individual. Therefore, generalizing vulnerability of all the industry sectors might be insufficient and unrealistic.

Assessing vulnerability regarding OSH must be considerate about the nature of work activities that a particular kind of industry is employing. As a result, to be specific about the factory type, brick kilns have been selected for this study's research purpose. There are provisions that the government has identified which many of the industries often seem to implement only partly. Even if the implementation part is not fully practiced, it also seems like the current National and International policies have made an impact to bring certain changes in the working environment which have not been discussed adequately. Therefore, this research paper explores how the government has addressed issues regarding OSH and how the process of implementing those policies has been progressing in the brick kilns of Bhaktapur.

This paper has selected three of the brick kilns in Bhaktapur for the study. It investigates the policies and their implementation from the perspective of labourers working at the kilns. The paper is focused on what kind of policies the government has drafted and to what extent they are being implemented currently. The results from this research can help identify issues specifically regarding brick kilns that can provide suggestions and recommendations to make necessary changes accordingly. It can also be an important source of awareness regarding OSH and the importance of its implementation in every workplace.

## **1.2. Statement of the problem**

The industrial sector has more risks of occupational hazards than any other sector. The use of chemicals, process of manufacturing, use of technologies, amount of pollution generated, all can contribute to hazardous environment. Within the industrial sector are brick kilns known for their hazardous working environment. The increase in the number of brick factories has created job

opportunities for many. But at the same time, it has also become one of the major contributors to air pollution that brings many health problems like chronic obstructive pulmonary disease (COPD), asthma, bronchitis and silicosis among the labourers and the surrounding communities. In brick kilns, hazards can be associated with use of chemicals, huge machineries, baking of bricks in high heat, lifting heavy loads, and manual ways of molding bricks. The presence of toxic chemicals like carbon monoxide (CO), Sulphur dioxide (SO<sub>2</sub>), fluoride compounds, and nitrogen oxides (NO<sub>x</sub>) can be extremely dangerous to health (Rupakheti, Pradhan, & Basel, 2018). The hazards related to working conditions can include high heat pressure. Heavy workload transportation, postural issues, and repetitive movements have high chances of resulting acute and chronic musculoskeletal disorders in the labourers. Further, minimum attention or lack of knowledge regarding machinery can also be a great threat which can lead to physical injuries and even disabilities during work.

To better understand hazards and vulnerability of labourers at their workplace, identification and assessment of potential risks is necessary. In addition to this, generalizing work related hazards among all types of industries might not be relevant. As a result, this study is designed to acknowledge the OSH policies that brick kilns have been adopting. There are a set of provisions that the GoN has addressed within the Labour Act, 2017 (2074). Reviewing those policies, this paper tries to identify what kind of practices have been adopted to ensure OSH of the labourers. Also, most workers in brick kilns are unskilled and from marginalized backgrounds. So, it is necessary to identify where the gap exists among the labourers by testing their lack of policy awareness, their level of knowledge and attitude.

### **1.3. Objective of the study**

The main objective of this study is to explore the labour policies regarding OSH and its implementation in the brick kilns of Bhaktapur. This study intends to investigate provisions relating to OSH of labourers at bricks kilns in three dimensions which includes:

- Knowledge- to identify whether or not the labourers working at brick kilns are aware of OSH included in the labour policies.
- Attitude- to understand the attitude of labourers towards OSH.
- Practice- to examine if such policies regarding OSH are practiced in their work environment.

#### **1.4. Research Questions**

The research questions aimed to be addressed by this study includes:

- Are the labourers at the brick kilns aware of policies regarding OSH of workers?
- How do the labourers feel about the policies? Do they think it is necessary to implement those policies?
- How much have the policies been implemented as per the current practice?

#### **1.5. Significance of the study**

Through this research, a picture of brick kilns in Bhaktapur can be portrayed focusing on the matters of OSH. Reviewing the policies and their implementation in real-life can help explore the pros and cons of existing policies. It can also help identify the relevancy of the policies. Moreover, this research paper is designed to understand the practice of OSH in brick kilns through three dimensions, which include ‘knowledge,’ ‘attitude,’ and ‘practice.’ From these lenses we can get a proper perspective of labourers regarding their level of understanding OSH, their attitude towards the policies, and what they have been practicing in real-life. And then, we can identify if the work is being done while incorporating provisions from the policies. If certain policies are being ignored, the results can help in identifying whether the negligence is among the labourers or just the enterprise.

Further, this research paper can be a source of knowledge regarding how matters of OSH might need certain changes as per the working conditions that vary in different industries. The risks identified through this project can be huge evidence that supports the importance of implementing OSH policies in every workplace, especially targeting industries that are highly labour-intensive.

#### **1.6. Organization of the study**

This research paper is structured into seven chapters, and the gist of subject matter within each chapter is presented as follows;

Chapter 1 “Introduction” includes the background of the study. It gives a brief knowledge to the reader about the topic being examined. This section consists of other sub-sections like statement

of the problem, objective of the study, research question, significance of the study, organization of the study and limitations.

Chapter 2 “Research Methodology” intends to describe the research design, population, sample, site selection, data collection procedure, data analysis, and ethical consideration. All these sub-topics define the process by which this research was conducted, and findings were analyzed.

Chapter 3 “Literature Review” consists of theoretical review of relevant articles and documents that were published before. Insights from those papers contribute to a better understanding of the subject matter and development of a conceptual framework to describe how OSH labor policies fail to become implemented in practice.

Chapter 4 “Data Analysis” is the section where all the data collected from the field are analysed and presented under different themes with their individual discussions. For this paper, there are four main themes which include; General Characteristics of the Labourers, Knowledge, Attitude, and Practice.

Chapter 5 “Conclusion and Recommendations” sums up the whole paper while highlighting the gaps and providing recommendations. It gives suggestions from the author’s point of view.

Chapter 6 “References” include all the in-text citations and credits to documents that have been useful to provide insight for this study.

Chapter 7 “Annex” consists of the survey questionnaire used during data collection.

### **1.7. Limitations**

The major limitation of this study is the seasonal working environment of the industry. In Nepal, the making of bricks is mostly manual and heavily relies on sunlight for the drying process. As a result, most brick kilns are seasonal enterprises that remain fully unfunctional throughout the monsoon season. The industry operates for about six months during the dry season which is from December to June (*Poush to Jestha as per Nepalese calendar*) in Nepal. Due to this nature of work, most of the labourers working at the kilns are seasonal migratory workers. This led to a huge challenge in gathering a subsequent number of respondents because the research timeline actually collided with monsoon season and most of the labourers had already left the kiln. Hence, the respondents might not be able to fully represent the total number of labourers that engage during the brick season. To remedy this limitation, three brick kilns were identified as areas of research.



## **Chapter 2: Research Methodology**

### **2.1. Research Design**

This research incorporates a cross-sectional survey design. It relies on the data collected from many individuals working in the brick kilns at a single period which tends to be the year of 2079-2080 (2022-2023) for this study. Within the surveys there are several types of study design and the one applied for this paper is descriptive where graphical and numerical methods are used for summarizing the data. This study's responses are based on numerical values as it follows the quantitative research method.

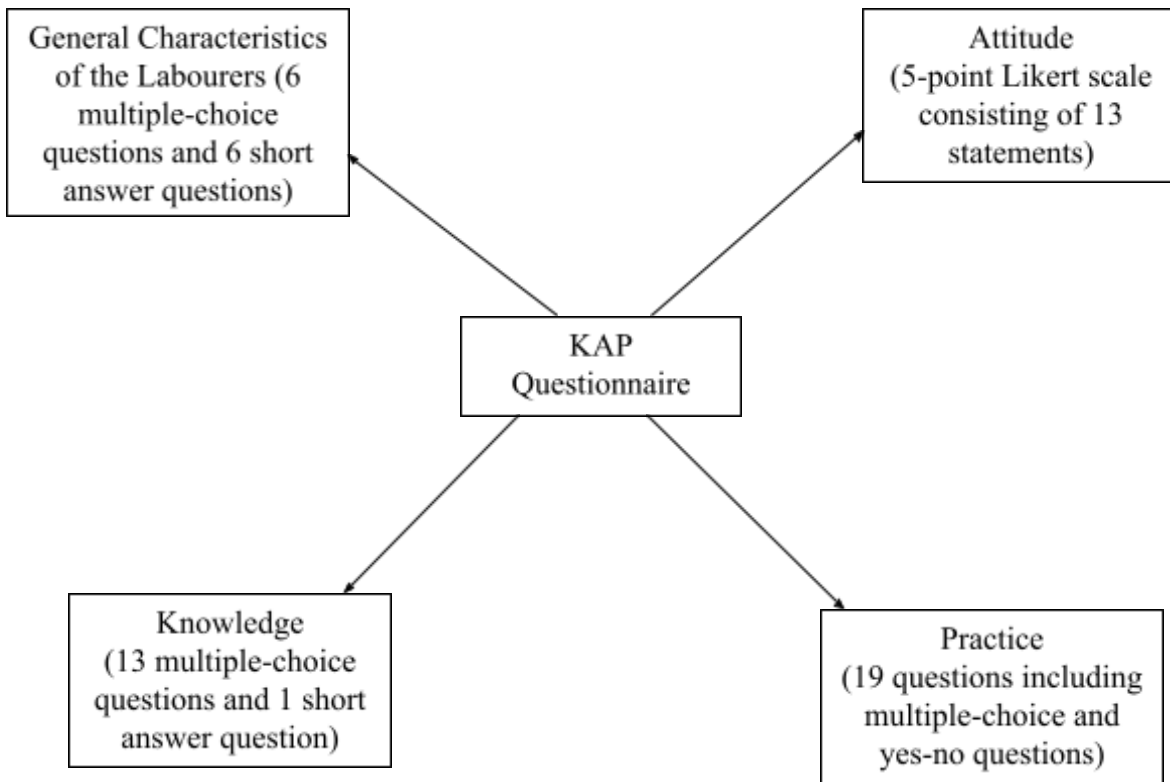
### **2.2. Population, Sample, and Site Selection**

The study sites for this research were brick kilns in Bhaktapur district. There are around 64 brick kilns operating within Bhaktapur among which 12 of them fall under Suryabinayak Municipality and 52 in Changunarayan Municipality (Himalayan News Service, 2019). Three of the brick kilns from Changunarayan Municipality including; Shwet Bhairab Brick Factory, Shree fixed chimney, Shree fixed brick Udyog were selected for this study. The reason for selecting these three brick factories among the others was because they are large-scale industries that employ an enormous number of seasonal migrant workers which can become a strong representation for most migrant workers. The population for this study included all the labourers that worked during this season of the brick kilns. However, the samples were selected from each kiln through simple random sampling. There are a total of 51 respondents including both male and female, among which 20 were from Shwet Bhairab Brick Factory, 14 were from Shree Saraswati Fix Chimney Udyog, and 17 from Shree Saraswati Fix Itta Udyog.

### **2.3. Data Collection Procedure**

The data were collected through surveys among the sample population. A structured KAP survey questionnaire was developed using KoboToolbox. The survey was taken through individual encounters with the respondents. As the questionnaire followed the structure of KAP survey, it was classified into four sections that included; general characteristics of the labourers, knowledge, attitude, and practice. The first section intended to collect general demographic information of the labourers, the second section was directed towards understanding their level of awareness and knowledge. While the third and fourth section examined their attitude towards

implementation of policies and the current practice of implementation in the factory, respectively.



*Figure 1: Classification of KAP Questionnaire*

With the KAP survey questionnaire, an observation checklist was also prepared to demonstrate the extent to which findings in this survey data were supported by the researcher's observations.

## **2.4. Data Analysis**

The findings from the collected data were first interpreted in Ms. Excel. Then for the presentation of data, different statistical tools such as pie charts, graphs, and bar-diagrams are used. The analysis of data is classified under four themes. They are; general information about the workers, knowledge, attitude, and practice.

### **I. General characteristics of the workers**

The first section investigates the general characteristics of workers in the brick kilns. It includes age, sex, caste/ethnicity, permanent address, temporary address, academic qualifications, marital

status, number of members in household, migratory status, number of adults and children working in household, and the type of work they do in the kiln. All of this information can help to understand the background of labourers working in the kilns, which can support other variables of this study.

## II. Knowledge

The second section tries to identify the level of knowledge labourers have regarding OSH and labour policies. For this section, knowledge is tested based on right and wrong answers from the respondents. There are 14 questions in this section, of which 1 is a short answer and the 13 are multiple-choice questions. For multiple-choice questions, 1 point is given to each right answer by the respondent. Therefore, an individual can have a maximum score of 13 points and a minimum of 0 points. Respondents having a score of 10-13 are considered as having high level of knowledge, those having 5-9 right answers are categorized to have moderate level of knowledge, and those scoring 4 or below are classified as having poor knowledge.

Scores	Level of Knowledge
10-13 points	High knowledge
5-9 points	Moderate knowledge
4 or below 4	Poor knowledge

*Table 1: Scores to determine Level of Knowledge among Labourers*

For the short answer question, the responses are discussed accordingly.

## III. Attitude

This section of the KAP survey consists of 13 statements directed to investigate the attitude of respondents towards OSH's importance at their workplace. A 5-point Likert scale was developed for data collection which included 'strongly agree', 'agree', 'are unsure', 'disagree', and 'strongly disagree'. The responses on the Likert scale were given scores ranging from 1-5 where, 'strongly disagree' was given 1 point, 'disagree' was given 2 points, 'are unsure' was given 3 points, 'agree' was given 4 points, and 'strongly agree' was given 5 points. Higher scores represented a positive attitude of the respondents towards OSH and lower scores denoted their negative attitude.

Strongly Disagree	Disagree	Are Unsure	Agree	Strongly Agree
1	2	3	4	5

*Table 2: Points for Likert Scale*

In this Likert scale the maximum score that a respondent can get is 65 and the minimum score they can get is 0. For respondents who have a score between 40-65 points, they have a positive attitude. Similarly, those scoring between 27-39 points are considered neutral and those with scores below 27 points are represented as negative towards OSH.

Scores	Attitude
40-65 points	Positive attitude
27-39 points	Neutral attitude
Below 27	Negative attitude

*Table 3: Scores to determine Attitude of Labourers*

#### IV. Practice

The fourth section is intended to examine whether the policies are being implemented into practice or not. There are 16 yes-no questions and 3 multiple-choice questions. Some of the yes-no questions included a third option that is ‘don’t know’ as from the pre-test conducted few days before the actual survey, it was identified that some labourers were unaware of certain matters that were included in the questionnaire and they could not choose between yes or no. If the respondents respond ‘yes’ it is determined that policies are in practice. If they answer ‘no’ it denotes that the policies are not practiced. Whereas the multiple-choice questions provide answers to what kind of practice is prevalent.

#### 2.5. Ethical Consideration

Before conducting the survey, consent from all the respondents was taken. It was informed beforehand that the survey was completely voluntary, and they had the choice to refuse to participate or exit at any time in between the process without any penalties. It was also stated that there were no direct benefits of being involved in the survey and their identity will be kept confidential in any part of the final paper.



## Chapter 3: Literature Review

### 3.1. Brick kilns in context of Nepal

Brick industry is one of the oldest industries in Nepal with large investment. It is a seasonal enterprise with seasonal employment opportunities. It is estimated that around 1,100 brick kilns are operating all over Nepal with the capacity of producing 15,000 to 50,000 bricks per day (Health Research and Social Development Forum, 2016). In recent years, it has become one of the fastest growing industrial sectors. Since the year 2000, the number of brick kilns within Kathmandu Valley has increased by 200% (Thygersson, Sanjel, & Johnson, 2016). The estimated demand for bricks was 20 billion between the years 2015 and 2020 (Global Fairness Initiative, 2017). This drastic rise in demand for bricks is a result of reconstruction work after the 2015 Earthquake and increasing urbanization. According to the latest data, the share of urban population in Nepal has increased by 0.4% in 2021 which makes 21.01%, reaching the highest value since 2011 (Neill, 2023). With the growing urbanization and increase in demand of bricks, it has encouraged a demand for cheap labour and lack of socially responsible brick production systems. It is estimated that, 200,000 people are working within the brick kilns of Nepal.

Brick kilns of Nepal contribute to the country's economy and offer huge job opportunities to thousands of workers which do not require specific skills. These enterprises are seasonal in nature operating for about six months from December to June (*Poush to Jestha*). They only operate during the dry season because brick kilns in Nepal are still behind in matters of modern technologies. During the monsoon season, it is impossible to continue operations as they use a large area of land to mold and dry bricks under the sun. The seasonality of brick sector tends to attract a lot of migrant workers from various parts of the country as well as some from India. Many migrant workers come from Province 5 (Dang, Banke, Bardiya, East Rukum Districts), Province 6 (Salyan, Dailekh, Kalikot, West Rukum districts), and Province 7 (Kailali, Doti, Kanchanpur districts) (Bajracharya, Gurung, Mathema, Sharma, & Mishra, 2021). These labourers are recruited through contractors (Dangal, Sharma, & Bartaula, 2021). They are also known as '*Naikes*.' Before the beginning of a season, the contractors go to different villages to offer jobs. Those with prior experience might have advance registrations for the next season. Once the labourers confirm their agreement, they accept a certain amount of money in advance from the contractor for which they are obliged to work and pay back the debt.

The labourers of the brick kilns either migrate individually or bring their family with them for the whole season. After coming to the brick kilns, they build a small hut near the factory and stay there until the season ends. These huts are commonly known as '*Jhyuli*' which are made up of bricks and tinned roofs (Dangal, Sharma, & Bartaula, 2021). There is a huge risk of huts being blown away by wind as their structure is temporary in nature. While the whole household live in a small hut, the members agree with the contractor to continue to do the type of work they are obliged to. There are four types of work in the brick industries: preparing mud and laying brick, carrying raw bricks to kilns, working inside the chimney, and carrying out cooked bricks (Rupakheti, Pradhan, & Basel, 2018). Later, the prepared bricks are transported in trucks for distribution.

### **3.2. Risks in Brick Kilns**

The brick kilns do create employment opportunities for many people including those from marginalized communities, unskilled, and with few other opportunities. Yet, the working conditions in kilns have titled the whole industry for hazardous work environment and a source of potential risks to the surrounding community. Hazards for every labourer might not be the same even if they are working in the same environment. There can be common hazards that pose a threat to every labourer, such as getting bruises while working. But some hazards might differ as per the type of work they are doing. For example, a brick shaping labourer might have risks of skin problems while the worker at chimney might face problems due to heat pressure. However, to create a bigger picture, some of the major occupational hazards posed to labourers in brick kilns include; physical, chemical, physiological, and environmental.

#### **a. Physical Hazards**

Physical hazards in brick kilns include factors that can cause harm to the body such as temperature, ultraviolet (UV) rays, sunlight, and loud noises (Thygerson, Sanjel, & Johnson, 2016). Excessive heat exposure is the main hazard of concern in brick kilns. The main sources of heat exposure in the kiln come from process heat during kiln operations and excessive, unprotected sun exposure. Loud noises from heavy vehicles, machinery, bricks shifting, and other factory activities can be a hazard to ears of people working in the kiln.

#### b. Chemical Hazards

The brick kilns in Kathmandu Valley are considered to be the second largest source of air pollution after vehicle emissions (Shrestha & Thygeson, 2019). The pollutants in air consist of dust particles which is the main chemical hazard in the brick kilns of Nepal. Brick dust particles contain carcinogens which include crystalline silica that deteriorates the breathing capacity of lungs. Other chemical hazards include prominent levels of coal dust and smoke from kilns containing sulfur oxides, fluorine compounds, nitrous oxides, hydrocarbons, and carbon monoxide (Thygeson, Sanjel, & Johnson, 2016). In the brick kilns, coal handlers and crushers are among the most exposed workers, who are repeatedly inhaling heavy coal dust and chemical aerosols. Besides labourers, their families and surrounding communities also get affected. These pollutants cause a high chance for people to get diagnosed with diseases like chronic obstructive pulmonary disease (COPD), asthma, bronchitis, and silicosis.

#### c. Physiological Hazards

The working conditions at brick kilns are unorganized, which becomes a source of physiological hazards. The poor use of ladders, hazardous pathways, and inadequate or damaged equipment are some of the examples. While other concerns involve ergonomic hazards. In most of the kilns, bricks are carried using a backboard supported by a head strap to lessen the impact and distribute force throughout the back. However, this practice of transporting bricks puts a lot of pressure on labourers' bodies. And it is repetitively done for more than 10 hours per day while carrying 50lbs or more bricks which is a serious matter regarding chronic physiological disorders (Thygeson, Sanjel, & Johnson, 2016).

#### d. Environmental Hazards

The topography of Kathmandu Valley is perfect for air pollution accumulation as it is bowl-shaped, restricting air flow in and out of the valley. This natural feature of landscape in the valley gathers elevated risk of environmental consequences. As per the data from World Bank, it was found out that the main contributing sources for Total Suspended Particles (TSP) were cement factories (36%), brick kilns (31%), domestic fuel combustion (14%), suspended road particles (9%), and exhaust from vehicles (3.5%). However, while sampling the particulate matters, brick kilns contained the highest PM10 concentrations that is 28% (Thygeson, Sanjel,

& Johnson, 2016). High PM<sub>10</sub> concentrations are more concerning issues as it includes extremely small particles that can be easily inhaled entering the deep regions of respiratory system. Brick kilns also use fertile soil during production, threatening agricultural advances in the Valley. Other biological hazards may also include contact with soil. During the process of brick molding and laying, labourers tend to contact soil through their bare hands. The matters present in mud can lead to allergies, drying of skin and other skin related problems.

According to the article published by Department of Health Science, Brigham Young University, titled as “Occupational and Environmental Health Hazards in the Brick Manufacturing Industry in Kathmandu Valley, Nepal,” it was identified that, hazards within the brick kilns result in life-long health consequences and it is particularly important to mitigate and control them.

### **3.3. Importance of Occupational Safety and Health in workplace**

Occupational Safety and Health focuses on hazard prevention while dealing with employees at the workplace. As explained above, there are many risks and hazards in the workplace according to the work that employees perform. Hence, OSH is established as a field in public health to promote and maintain the highest degree of physical, mental, and social well-being of the employees.

The focus of OSH is promotion and maintenance of working capacity and employee health which includes; improvement of working environment, development of work cultures and organizations to support health and safety; promotion of positive social climate and smooth operation; enhanced productivity of the organization (Pathak, 2019). The OSH standards mandate reduction, removal, or replacement of hazards in the workplace while helping minimize their effects. OSH is not just a matter of concern regarding the employees. Rather, it also benefits the employers as healthy workers and results in higher efficiency and productivity.

The employer and the whole enterprise are legally responsible for the OSH of their employees. They are obliged to provide a safe working environment for the workers. To identify risks and hazards, the employers must first understand the standards regarding OSH. These standards target all the potential hazards in the workplace and emphasizes on prevention of fatalities while looking into disciplines like occupational medicine, nursing, ergonomics, psychology, hygiene, safety and other (Pathak, 2019).

The whole idea of OSH is directed towards a common goal of enhancing better working conditions and to ensure safety of labourers which can increase competitiveness, profitability, and motivation among the workers. Therefore, OSH is a significant matter of concern in every enterprise.

### **3.4. Legal Provisions regarding OSH in Nepal**

The Government of Nepal has addressed labour rights, and other provisions regarding labourer and their workplace in various laws and rules. Among them, the latest ones are the Labour Act, 2017 (2074) and Labour Rules, 1993 (2050) which also highlights provisions regarding OSH. Following are some of the key issues mentioned in the two national documents.

Beginning with Labour Act, 2017, the following Chapters are concerned about OSH;

i. Chapter-7: Provisions Relating to Working Hours

Under this chapter, it is clearly stated that no employer shall employ labourers to work more than eight hours a day and forty-eight hours a week. The labourers must be provided with half an hour's rest after five hours of continuous work.

ii. Chapter-9: Provisions Relating to Leave

This chapter includes various kinds of leave that a labourer must get. Among which, the ones related to OSH include sick and maternity leave. The Act states that a labourer shall get paid sick leave for twelve days a year. However, for those working for one year or less than a year, they shall get leave proportionately. Similarly, a pregnant female labourer shall get maternity leave of fourteen weeks before or after delivery. It is also made compulsion in the policy that the pregnant labourer should take leave from at least two weeks before the expected date of delivery to at least six weeks after the date of delivery. Further, the pregnant labourer must be paid full remuneration for sixty days and shall not get paid for the remaining period. The employer must approve unpaid leave of up to one month in addition to the referred period in case the doctor recommends further rest. In addition to the leave for the pregnant labourer, the Act also acknowledges the importance of leave for a male labourer whose wife is going to deliver a baby. It states that, the husband of a pregnant woman shall get paid maternity care leave for a period of fifteen days.

iii. Chapter-10: Provisions Relating to Provident Fund, Gratuity, and Insurance

One important aspect regarding OSH includes medical insurances. Medical insurance can assist in compensation for any kind of injuries that the labourers face while working at the kilns. The Act states that the employer shall procure an annual medical insurance of at least one hundred thousand rupees for each labourer. Similarly, the employer shall procure accident insurance of at least seven hundred thousand rupees covering all kinds of accidents for each labourer. If a labourer dies or becomes incapacitated mentally or physically from an accident, their legal heir shall receive the compensation.

iv. Chapter-12: Provisions Relating to Occupation Safety and Health

This chapter is completely focused on the issues relating to OSH. One of the provisions is to stop work in the case of immediate danger. It says that, in a situation where it is likely to cause bodily injury or risk to, or serious effect on the health of a labourer or other person or cause unexpected loss or damage to any equipment, product or material if any work is not stopped immediately, the labourer involved in such a work shall give information to the employer or person responsible. If an immediate danger has arisen or is likely to arise to the safety and health of the labourer or other person in the enterprise, the employer may give directions to immediately stop work. While, for the special provisions relating to OSH the standards to be followed by the enterprise are as following:

- (a) Provisions relating to protection of eyes,
- (b) Provisions relating to protection from chemical substance,
- (c) Provisions relating to operation of pressure plants,
- (d) Provisions relating to safeguard of machines,
- (e) Provisions relating to lifting of load,
- (f) Other necessary provisions.

This section also states provisions relating to the inspection of pressure plants and boilers as prescribed. Further, it includes making arrangements for the prevention and control of infectious diseases in the workplace.

As for the Labour Rules, 2062 (2006), the provisions under it are like the Labour Act, 2017. However, it includes rules which are more particular to certain matters that the Act has been unable to define.

Firstly, the Labour Act stated the ideal working hours per day to be 8 hours and per week to be forty-eight hours for every labour. In Labour Rules, there are separate Sections under Chapter-2 to define time for deploying minor and a woman at work. It says that, while engaging a minor more than fourteen and less than sixteen years of age, they shall not be deployed in work for more than six hours per day and thirty-six hours per week. When employing such minors for the period other than from 6 am to 6 pm, they may be deployed as per the mutual consent entered between the minor and the employer. Similarly, in case of women before deploying them in work, mutual consent between the worker and the employee is required. The employer shall have to arrange for the security of woman workers.

Secondly, the Labour Rules makes a clear statement regarding compensation against injury in Section 15 of Chapter-3. It states that in case a worker is injured while doing a work designated by the Enterprise, the whole amount incurred on their treatment shall be paid by the employer on the recommendation of the medical practitioner recognized by GoN. In case a worker, after being injured is unable to work and needs to undergo treatment staying at home or hospital, the employer shall have to provide the full remuneration in case of treatment in the hospital, and half of remuneration in case of treatment undergone at home in addition to the compensation. Provided that the remuneration to be paid is limited to a year. In case a worker gets hurt leading to physical disability while doing the work designated by the enterprise, then the employer shall pay a lump sum amount equivalent to his/her five years remuneration at the rate of his current remuneration, if the disability is of hundred percent. Whereas, in case of immediate death or during treatment because of accident during work, compensation equivalent to the amount of three years of remuneration of the deceased shall be provided by the employer to the nearest heir of the worker. However, in the case where a worker dies or gets injured resulting to physical disability, due to natural calamities while working, the employer shall not be entitled to compensation. Likewise, the employee who is a victim shall not receive double compensation. They shall receive the amount either from the employer or the insurance, whichever is greater. The Labour Rules, 2062 also addresses sick and maternity leave with half pay for up to fifteen days in a year and full pay for a period of fifty-two days pre- and post-delivery, respectively.

Another issue regarding OSH mentioned in the Labour Rules, 2050 includes medical expenses. The employer shall have to arrange for equipment and medicines for the immediate treatment of worker in case of injury while working in the enterprise. In an enterprise employing four hundred or more employees, the employer shall have to arrange for medical treatment center including the medicines and equipment of first aid in the responsibility of a trained or experienced health assistant in the enterprise.

Moving on to Chapter-4, it talks about provisions relating to Health, Cleanliness and Safety. Section 38 of this chapter talks about provision for safety against fire. It states that the employer shall have to arrange certain measures for protection against fire. The measures include fire extinguishers should be placed in the proper place. There must be emergency exits in case of fire. Fire alarms or any signaling device must be arranged. Devices to be used in fire extinguishing shall have to be inspected and tested at least once a year.

Section 39 talks about limitation of load carrying where the amount of carrying load is categorized as per the gender and age of labourer.

Labourer category	Limit of load (in kg)
Adult male	55
Adult female	45
Minor male (16-18 years)	25
Minor female (16-18 years)	20
Minor male and female (14-16 years)	15

*Table 4: Limit for load carrying as per gender and age of labourers*

Further, the policy includes testing of pressure plants in Section 40. While testing a pressure plant, special attention should be provided to good assembling, keeping in safe manner maintaining the pressure plant, and installation of equipment that are required in the pressure plant (Nepal Law Commission, 1993; MinErgy, 2017).

### **3.5. International Labour Standards on Occupational Safety and Health**

The International Labour Organization (ILO) Constitution sets forward the principle that workers must be protected from any kind of injuries or diseases that can be a result of activities they

perform in their workplace. The latest ILO global estimation states that 2.78 million work-related deaths are recorded every year, of which 2.4 million are related to occupational diseases. With the immense suffering caused for workers and their families, the associated financial expenses are also exceedingly high for the enterprise, countries, and the world. The losses in terms of compensation, interruption in production, lost workdays, health-care expenses, represent about 3.94 percent of the world's annual GDP (International Labour Organization, n.d.). However, these hazards are preventable and can be managed through implementation of mitigation measures. ILO standards on Occupational Safety and Health provides necessary tools that can help governments, employers, and workers to increase safety at work.

The ILO has adopted more than 40 standards that deal with occupational safety and health. It also has over 40 Codes of Practice and nearly half of ILO instruments directly or indirectly are linked with OSH issues. It has also established an International Labour Standards Policy which has four components (International Labour Organization, n.d.). They are listed as follows;

- Better promotion and application of the existing corpus of up-to-date ILO standards.
- Strengthening of the supervisory system.
- Importance of achieving greater visibility of ILO standards.
- Technical assistance, technical cooperation, and capacity building.

With the wide area related to world of work covered by the ILO, its ratification by many countries has continued to increase in number. Nepal became a member of ILO in 1966 and the ILO Country Office for Nepal was established in 1994.

The ILO in Nepal works with government, employers' organizations, and workers' organizations in promoting safe and healthy conditions at the workplace. The initiative helps in enhancing the application of the International Labour Standards and supporting to formulate national labour legislation and promoting social dialogue, social justice, and decent work (ILO, n.d.). The ILO Occupational Safety and Health Development in Nepal (SHIELD) Project, implemented from 2013-2015, contributed to conduct needs assessment and a gap analysis of the current legal provisions on OSH and labour inspection, development of National Occupational Safety and Health Policy and development of OSH guidelines to be adopted by Department of Local Infrastructure Development and Agricultural Roads (DoLIDAR) for construction sector. The key activities include technical assistance to improve policies and legislation, inspection services, integrate OSH issues concerning environment, workers' health, and HIV/AIDS; OSH

campaigns; capacity building workshops and training the constituents on OSH at the national, regional and district level and sector specific researches (International Labour Organization, n.d.).

Furthermore, to be specific, the primary areas of work that the ILO in Nepal has been focusing on includes;

- Workers' activities
- Employers' activities
- Policies Strategies, and Regulatory Framework are Strengthened for the Promotion of Employment-centric and Inclusive Growth
- Advocacy for Rights and Good Corporate Governance (UNNATI-Inclusive Growth Programme in Nepal)
- Integrated Programme on Fair Recruitment (FAIR)
- Labour Market Information and Employment Services (LiE)
- From Protocol to Practice: A Bridge to global action on forced labour (The Bridge project)
- Strengthening National Rural Transport Programme (SNRTP)
- Way Out of Informality; Facilitating of Informal Economy in Nepal
- Work in Freedom (WiF)

All these efforts made by the ILO in Nepal has played a significant role in developing a constructive partnership between the government, employers, and the workers. With this partnership, the constituents have been able to unionize informal workers, implement a range of social protection measures, amend labour laws, establish a social dialogue mechanism, and ratify ILO Conventions (ILO, n.d.).

### **3.6. Long Working Hours and OSH**

In national policies of Nepal, the provision regarding OSH has a separate chapter which is different from the chapter including working hours. Having such format of the policies, we cannot ignore the issue of working hours when we discuss OSH. The amount of time the labourers work has a direct impact on their health. To say that, long working hours are now known to be responsible for about one-third of the total estimated work-related burden of disease. It is identified as the risk factor with the highest occupational disease burden. According to the latest global analysis published in Environment International today by World Health

Organization (WHO) and the International Labour Organization (ILO), it was estimated that, long working hours led to 745,000 deaths from stroke and ischemic heart disease in 2016. Among the total deaths, 398,000 were caused by stroke and 347,000 from heart diseases due to having worked at least 55 hours a week.

Dr. Maria Neira, Director, Department of Environment, Climate Change and Health, at the WHO also suggested in her statement that, *“Working 55 hours or more per week is a serious health hazard. It’s time that we all, governments, employers, and employees wake up to the fact that long working hours can lead to premature death.”* (WHO, ILO, 2021).

The same article published by WHO also recommends some actions that governments, employers, and workers can adopt to protect workers’ health.

- Enforcing laws, regulations and policies by the governments that prohibit compulsory overtime and maximum limits on working time.
- While agreeing on the maximum working hours, a collective agreement between employers and workers can help build flexible time for work.
- Practice of sharing working hours among the employees can ensure working hours do not climb above 55 hours or more per week.

As the report strongly emphasizes on the working hours of labourers impacting their occupational health, this research paper also suggests that negligence of long working hours or pre-determined working hours in brick kilns is a serious matter that affects the occupational health of the workers. Therefore, this study examines the time of work at brick kilns and the attitude of labourers towards it.

### **3.7. Other literatures**

In the year of 2021, a study on the brick kilns of Lalitpur District by Megh R. Dangal, Binita Sharma and Bishwa J. Bartaula was conducted, where the authors explored the practices of labour policies in brick kilns of Nepal and analyzed the situation of workers in their workplace. It intended to explore the gap between existing labour laws and practices in real life situation of brick kiln workers which is like the objective of this research.

Results from the research conducted stated that most of the workers were poorly educated and unskilled who came every year with their family to the kilns. Their work was assured orally, meaning that the workers did not have an appointment letter from the owner. The presence of hazardous working environment resulted in musculoskeletal injuries and problems exposing working children to risks and hazards. Although, the GoN has ensured a healthy work environment and health insurance to the workers, it was found that none of the brick kilns under the study provided such facilities. However, the employer covered the health expenses if any accidents were to occur during their work. Furthermore, it was identified that the participants in this study did not know anything related to labour laws, policies and acts nor did they get any safety and health training. The paper also suggested that, in a context where there are not any policies addressing the needs of the workers, there remain unsolved issues. Especially, where the labourers are not educated and have limited awareness, general labour policies of Nepal were found to be less effective in the workers' lives (Dangal, Sharma, & Bartaula, 2021).

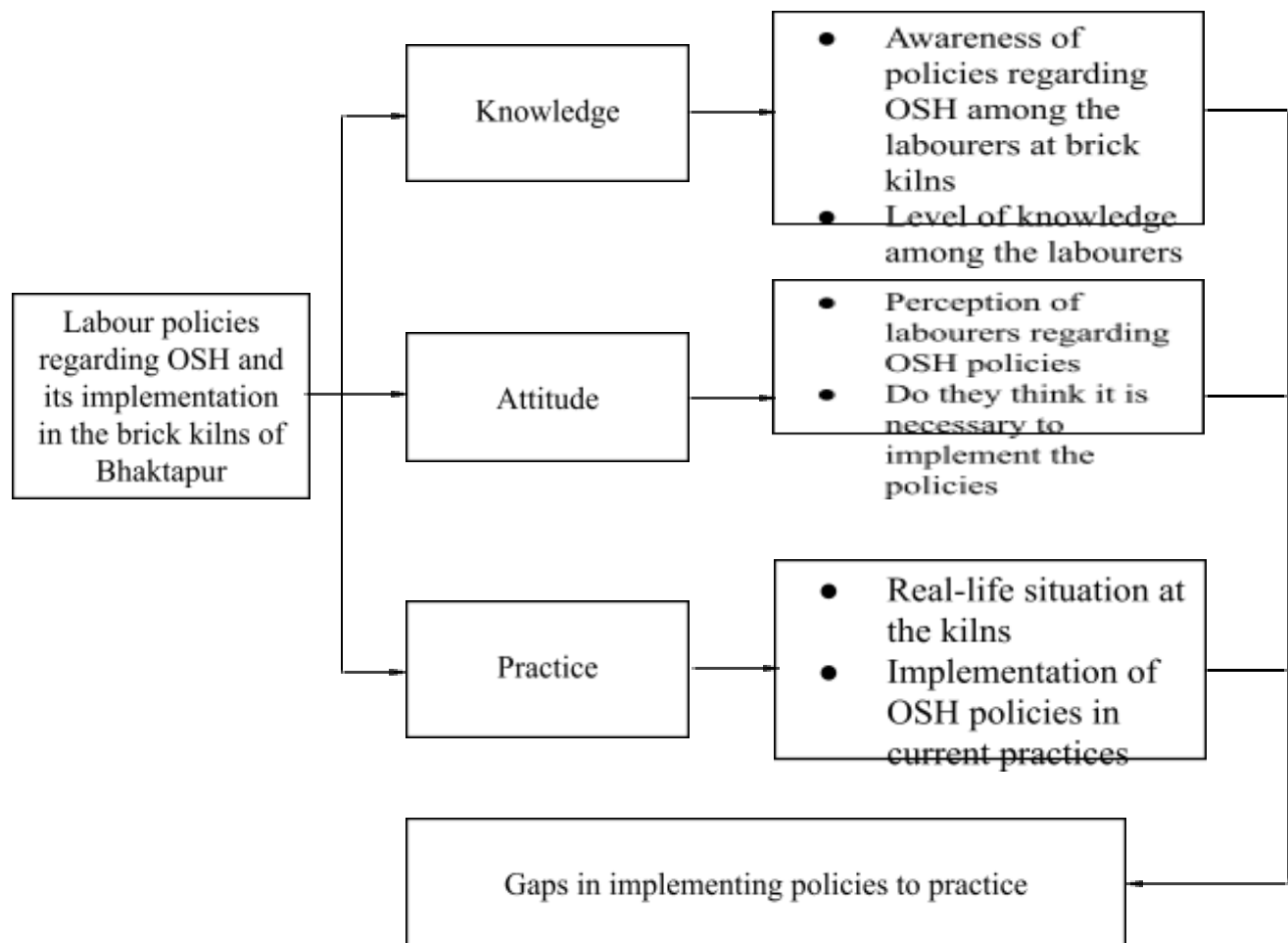
Another study titled "Occupational Safety and Health Vulnerability among Brick Factory Workers in Dhading District, Nepal" found that occupational safety and health vulnerability was extremely high among the workers in brick kilns (Rupakheti, Pradhan, & Basel, 2018). This paper's main objective was to identify the status and factors linked with OSH vulnerability among workers of brick factory in Dhading district. For data collection, the tool used in this paper was a face-to-face interview with structured questionnaire. Vulnerability was defined as the exposure towards hazards and lack of procedures, policies, awareness, and empowerment. Further, the Pearson Chi-square test was used to explore the relation between vulnerability and demography, occupation, and workplace features. Among the total 201 participants, four-fifths were identified to have experienced OSH vulnerability. Young workers, non-native immigrants, workers carrying bricks out of chimney and workers from small-sized workplaces experienced higher vulnerability.

Furthermore, one of the other studies highlights the status of brick kilns in Kathmandu Valley and its environmental impacts which not only affects the labourers but also the community members. The article, "Brick Kilns in Kathmandu Valley: Current status, environmental impacts and future options" states that, in a topography like Kathmandu Valley where wind movement is restricted, brick kilns become a prime cause of air pollution (Raut, 2003). This article points out the fact that, there are more than 125 brick kilns operating in the Valley that have been

contributing to the deterioration of air quality and degrading the health of people living near the kilns. The results from this article concluded that brick industries using outdated Bull's Trench technology not only causes pollution and health problems, but also has negative impacts like loss of soil fertility, drying of wells, and visibility reduction. However, it is not feasible to close all the kilns. Therefore, the author recommends the government to implement its move towards banning Bull's Trench Technology.

### 3.8. Conceptual Framework

The *Figure 2* represents conceptual framework of this research paper. There are three major variables for this study, Knowledge, Attitude, and Practice. Within these three variables, there are sub-themes that specify subject to be examined. Testing these variables, can help elaborate how regulatory OSH Labour Policies fail to become implemented in practice.



*Figure 2: Conceptual Framework*



## Chapter 4: Data Analysis

### 4.1. General characteristics of the labourers

The total number of respondents for this study were 51 labourers working in three different brick kilns of Bhaktapur. Consent of all the participants was taken before involving them in the survey.

#### 4.1.1. Age

Most of the participants were between the age of 20-40 years old. Therefore, to interpret the most common age group of labourers, two categories have been distinguished i.e., 20-30 years and 31-40 years.

Age	Frequency	Percentage
20-30 years	32	62.7
31-40 years	19	37.2

*Table 5: Age of the labourers*

As presented in *Table 5*, most labourers—that is, 32 of them—were in between the age of 20-30 years old which is 62.7% of the total respondents. While the remaining 19 were between 31-40 years old, that makes up 37.2% of the participants. This data shows that there were no cases of child labour in the kilns, which is clearly against the law as per the Child Labour (Prohibition and Regulation) Act, 2056 (2000). It states that, “*no child having attained the age of 14 years shall be engaged in works as a labourer*” (Nepal Law Commission, 2000). Observation from the field also makes it evident that there were no children working in kilns.

#### 4.1.2. Sex and Marital Status

Out of the total participants, the ratio of male participants were more than female participants. There were female workers as well but all of them were married and were working with their husbands in the kiln. With addition to all the married female respondents, most of the male respondents were married as well. As a result, it was identified that most of the workers in brick kilns were married.

Sex	Divorced	Married	Unmarried	Grand Total
Female		13		13
Male	1	27	10	38
Grand Total	1	40	10	51

*Table 6: Sex and Marital Status of Labourers*

The table above represents sex and marital status of the respondents. To understand the marital status of labourers with respect to their sex, cross-tabulation was done. As shown in *Table 2*, out of the total population, the number of male participants is 38 and the number of female participants is 13 which clearly shows that many workers in the kilns are male.

In case of marital status, we can see that 40 of the respondents were married, 10 were unmarried, while 1 was divorced. Among which, all the 13 female respondents were married who were mostly wives of male workers in the kiln. Whereas, for male respondents, 1 was divorced, 27 were married, and 10 were unmarried. This justifies that majority of female workers are married and work in the kilns with their husbands. This trend was also justified by D. Rabin in his study *“Socio-economic Standing of Female Workers in Brick Kilns: Mistreatment to Social Wellbeing - An Assessment of Khejuri CD Blocks in Purba Medinipur District, West Bengal.”* There may be distinct reasons for women being engaged in brick kilns with their husbands, of which one can be related to their safety. In brick industries, the workers live in thatched huts which do not have secured door systems leading to high chances of sexual abuse and harassment. D. Rabin also suggests in his study that the Labour Department must put forward the issues of physical-mental torment, sexual annoyance, and molestation of female workers (Das, 2015). In such working environment, to continue their work, women might feel safe when they are with their husbands. Hence, most of the working women in brick kilns are married.

To better interpret the data, a bar diagram is presented below. In the figure, the X axis (horizontal axis) represents sex of the respondents, and the Y axis (vertical axis) represents number of respondents. Whereas the colors of the bar distinguish marital status of every respondent as shown in the indicator.

#### 4.1.3. Caste/Ethnicity and Permanent Address

Caste/ Ethnicity	Bhaktapur	Dang	Kavre	Ramechhap	Rolpa	Salyan	Sindhupalchowk	Solukhumbu	Grand Total
Brahmin					2				2
Chettri					6	2			8
Dalit		1			5	1	5		12
Janajati	1	7	1	1	13	2	3	1	29
Grand Total	1	8	1	1	26	5	8	1	51

*Table 7: Caste/Ethnicity and Permanent Address of Labourers*

As shown in the table above, the majority of the workers are Janajati that is 29 respondents. Followed by Dalit which makes 12 of the respondents. Likewise, 8 of them are Chettri and 2 are Brahmin. Looking into their permanent address, the majority of the respondents were from Rolpa that is 26 respondents. The second highest number of respondents were from Dang and Sindhupalchowk which had 8 respondents each followed by Salyan with 5 respondents. Other regions of Nepal like Bhaktapur, Kavre, Ramechhap, and Solukhumbu consisted of 1 respondent each which makes the remaining participants.

Most labourers in the selected kilns seem to be migratory workers from various parts of the country due to a unique pattern of hiring workers in jobs. Before the brick season starts, contactors who are known as *Naikes* go to different villages to convince people to work in the kilns. After the signing of the contract with the *Naikes* the workers accept money in advance which they have to pay back by working. The work in brick kilns does not require specific training and qualifications which gives a better opportunity for unskilled and unemployed people in villages to find an income source.

#### 4.1.4. Temporary Address and Migratory Status

Brick industries are seasonal enterprises that operate for six months, which are the dry months of the year. During the brick season, most of the labourers tend to migrate and live in temporary

huts located within the brick kilns. Later, they return to their hometown once the monsoon season starts. The following table explains this trend.

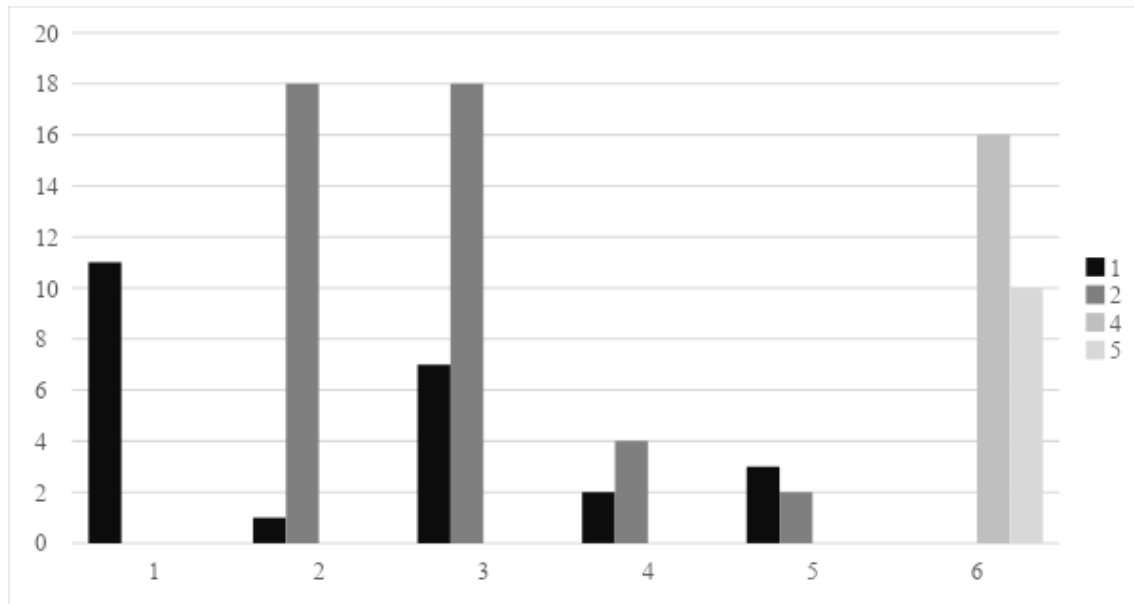
Temporary Address	Occasional	Permanent	Seasonal	Grand Total
Industry Quarter	2		39	41
Owens a house		1		1
Rent	4	2	3	9
Grand Total	6	3	42	51

*Table 8: Temporary Address and Migratory Status*

As shown in *Table 8*, most of the respondents are seasonal migrants, which makes 42 out of the total respondents. 6 of the respondents said that they occasionally went to their hometown for visits. By occasional migrating, it implies that the workers visited their hometown for certain festivals, rituals, or governmental works that they need to perform in their place of origin. While only 3 were staying nearby the kilns permanently. Among all the 42 seasonal migrants, 39 of them stayed in the industry quarter (temporary huts built within the kiln), and 3 of them rented rooms near to kilns. While, among 6 of the respondents who occasionally migrated, 4 of them said they stayed in rented houses, and 2 of them in industry quarters. Similarly, 2 of the permanent migrants said that they stayed in rented houses and 1 of them owns a house. This data shows that most of the labourers in brick kilns are seasonal migratory workers which is also explained by their permanent addresses as the majority of them belong to regions out of the Kathmandu Valley.

#### **4.1.5. Number of Working Adults and Children in Household**

In order to interpret the results of working members in the family, a chart is presented below which shows the number of working adults in the family.



*Figure 3: Number of members in household and number of working adults*

In the figure above, the X axis (horizontal axis) represents the number of family members in a household and the Y axis (vertical axis) represents the number of working adults in the family. The colors of the bars distinguish the number of working adults as shown in the indicator.

As shown in the figure, it is identified that all the respondents had a maximum number of 6 members in a household. 11 of the respondents said they were the only member in household who are working adults. 10 respondents had two family members among which 9 respondents had 2 working adults in the family that makes 18 working adults, and 1 had 1 working adult. Similarly, in the family of 3, 9 responded that they had 2 working adults making a total of 18 working adults and 7 responded that they had only 1 working adult. In a family with 4 members, 2 responded: 2 were working adults, making 4 working adults, while 2 said there was only 1 working adult. Further, in the household of 5, 1 said that there were 2 working adults and 3 responded that there was 1 working adult. Likewise, there were 6 respondents with households of 6 members. Among them, 4 said there were 4 working adults in the family, and 2 said there were 5 in the family, making 26 in household of respondents with 6 family members. This data shows that most of the workers in the kiln come with their family and the adults in the family work there to earn a living.

In the case of working children, no children were seen to be working in the kiln. Only 1 respondent said that their child was working. However, through further investigation during the survey, it was identified that the child was not officially working in the kiln. She was just helping

her father with his work during free time. The respondent added, the owner/supervisor of the kiln strictly prohibited children from working so she just acted as a helping hand according to her own will. This statement from the respondent and the practice of no children working in the kilns proved that the kilns strictly followed the policy on prohibition of child labour.

#### 4.1.6. Academic Qualifications

Academic Qualification	Frequency	Percentage
Illiterate	30	58.8
Primary (1-8)	20	39.2
Secondary (9-12)	1	1.9

*Table 9: Academic Qualifications of the Respondents*

*Table 9* represents academic qualifications of the respondents, and it is evident that most of the workers in brick kilns have minimum level of academic qualifications. Even more troubling, most are illiterate. The level of their education was self-proclaimed by the respondents while defining the grade they had studied till. As per the data, 30 of the respondents are illiterate or have not been to schools that makes 58.8 percent of the total respondents. Similarly, 20 of them attended schools for primary education (1-8) which is 39.2 percent of the total population. And only 1 out of the total respondents has acquired secondary level of education (9-12) that makes the remaining 1.9 percentage.

#### 4.1.7. Type of Work

There are various stages of manufacturing brick. According to the stages, there are different activities that the workers must perform. The different types of work include activities where some labourers are assigned to work with technologies or just their manual powers. For example, transporting bricks uses trucks while molding and drying of bricks uses manual powers. So, for this study, rather than distinguishing each type of work according to what activities they perform, works are categorized based on whether the respondents use machinery.

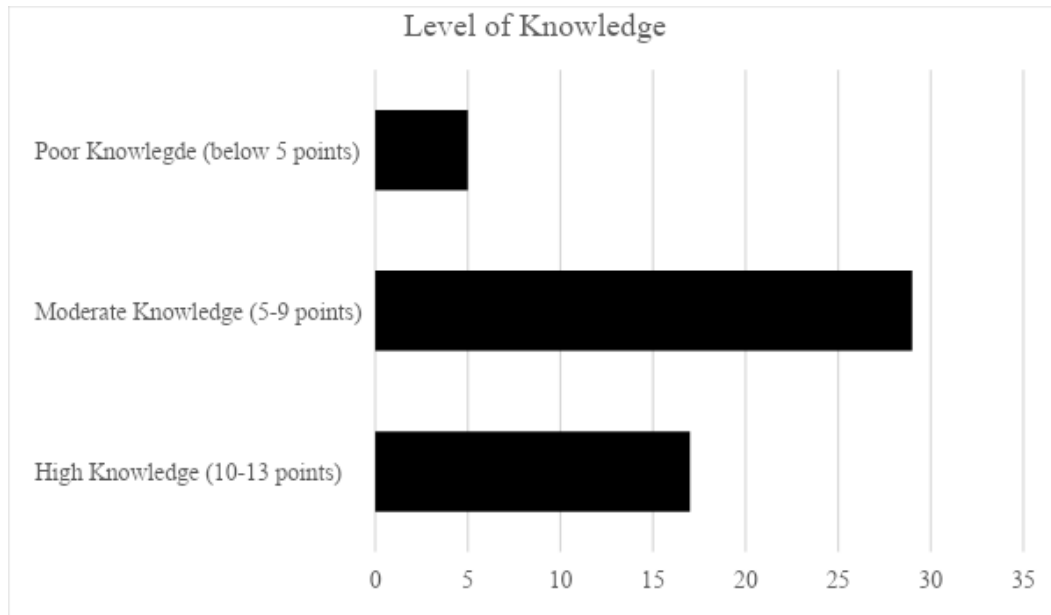
Type of Work	Frequency	Percentage
Manual	37	72.5
Technical	14	27.4

*Table 10: Type of Work*

According to *Table 10*, most of the respondents of this study were manual workers. Out of 51 respondents, 37 were manual workers that makes 72.5 percent of the total respondents. Among these respondents most of them further explained that they were brick loaders. Their job was to load trucks with processed bricks. While 14 of the respondents were technical workers that makes the remaining 27.4 percent. These respondents were also mainly truck drivers who transported the manufactured bricks. The results might have been this way because during the data collection phase, the brick season was over and only final stages of brick manufacturing were left. As a result, only those labourers engaged in loading and transportation were remaining who became the respondents for this study. This data is essential as it affects the attitude and response of labourers towards OSH policies. The type of work labourers performed had a profound impact on their perception of view of certain matters.

#### **4.2. Knowledge (Understanding of labourers regarding occupational safety and health)**

In order to understand the knowledge of respondents regarding occupational safety and health, every question was followed by multiple options from which the respondents had to pick the right answer. For every right answer, scores were given. Respondents scoring more points indicated that they had better knowledge regarding the policies of OSH and vice versa.



*Figure 4: Level of Knowledge among the Respondents*

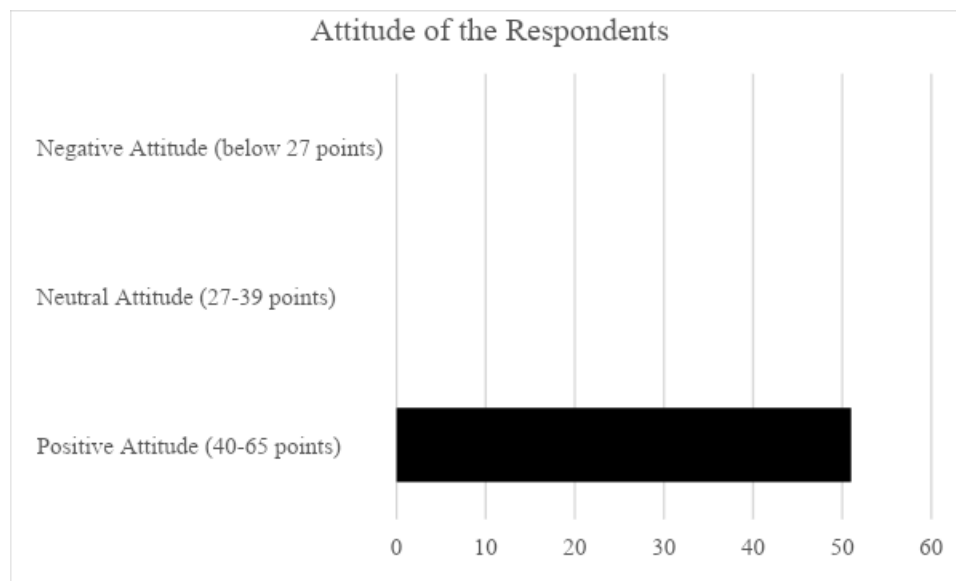
In the above figure, the number of respondents is presented in X-axis (horizontal axis) and the level of knowledge is presented in Y-axis (vertical axis). The respondents are categorized in these three categories according to the points they scored for the 13 multiple-choice questions.

As shown, 17 of the respondents scored between 10-13 points, which represents a high level of knowledge. Most of the respondents (29 of them) scored between 5-9 points. As a result, they are considered moderate knowledge. Whereas 5 of the respondents scored below 5, which represents they have poor knowledge regarding OSH. This data shows that, regardless of most respondents being illiterate and having acquired education only until primary level, they are aware of policies regarding OSH.

For the only short question answer, the respondents were asked what they understood by medical insurance. Among the 51 respondents, the majority of the respondents, that is 31 of them described it as a sum of money that can be used to cover medical expenses. While 18 of them said they did not know anything or much about it. And only 2 of them mentioned insurance companies in their answer. This shows that most of the respondents are aware of insurances but do not completely understand what lies within the concept.

### 4.3. Attitude (Labourers perception on occupational safety and health)

The attitude level is tested based on points the respondents scored for each statement. A 5-point Likert scale ranging from ‘Strongly Agree’ to ‘Strongly Disagree’ was developed and all the points are added together to identify the overall attitude of all respondents. From this analysis, it was found that all participants had positive attitude towards policies regarding Occupational Safety and Health.



*Figure 5: Attitude of the Respondents regarding OSH*

In *Figure 5*, X-axis (horizontal axis) represents number of participants, and the Y-axis (vertical axis) represents attitude of the respondents. The diagram shows that all 51 respondents scored between 40-65 points, which denotes a positive attitude towards the policies. Their positive attitude explains that, even with a moderate level of knowledge, the respondents are aware of basic provisions to ensure their safety in the workplace. However, the scores differ when a particular matter is examined. There were varying attitudes towards a particular question from different individuals. Therefore, each issue is analysed as follows.

S. N	Statements	Strongly Agree	Agree	Are Unsure	Disagree	Strongly Disagree
1.	Labourers should not work more than 8 hours per day	0	23	6	18	4

2.	Labourers should get break time in between their working hours	28	23	0	0	0
3.	In case of sick leave, labourers must get paid leave	11	19	12	9	0
4.	Maternity leave is necessary for pregnant working women	47	4	0	0	0
5.	Every labourer must have their medical insurance done	9	26	14	2	0
6.	The employer must procure medical insurances of every labourer	10	23	16	2	0
7.	While working, if a labourer gets injured, the employer is responsible for the compensation of medical expenses	47	4	0	0	0
8.	There should be equipment and medicines in responsibility of a health expert present at the brick kiln	10	41	0	0	0
9.	Fire extinguishers should be present at the dock (fireplace)	3	21	25	2	0
10.	Electricity lines must be placed properly as anyone can get electric shock	5	42	4	0	0
11.	Safety equipment like helmets, gloves, masks, glasses, special uniforms, boots are must need for every labourer as per the nature of their work	21	22	7	1	0
12.	No enterprise should ignore the matter of occupational safety and health	28	22	1	0	0
13.	Labourers also have an important role in implementation of occupational safety and health policies	28	23	0	0	0
Grand Total		247	293	85	34	4

*Table 11: Attitude of Respondents according to Statements*

Although, the overall analysis of respondents' attitude towards OSH policies were positive, there were specific matters where many of them were unsure of or against the statements. One of the statements where most of the respondents disagreed and strongly disagreed was regarding working hours. Many participants, especially the manual workers, contradicted this statement because they said they got paid based on each brick they make or on each truck they load. So, to earn more, the respondents tried to work more and neglected the optimum working hours as stated in the Labour Act. Similarly, in case of paid sick leave, many respondents were unsure about it because they did not get paid when they took sick leave. They strongly believe in the concept of more work equating to more earnings and if they do not work, there is no way of getting paid. Surprisingly, there were other workers designated to posts like supervisors, drivers, and operators paid monthly. In their case, some respondents said they could take leave of 2 days in a month without affecting their salary. And for other respondents who agreed with the statement simply thought that it would be better if the employer would allow paid leave in case of sickness.

Moving on to the statement regarding medical insurance, many respondents were unsure about this issue as well. This might be because they did not know much about it as explained in 4.2. Knowledge section. However, among the respondents, the workers assigned as drivers were confident about medical insurances since their employer had insured the trucks and drivers.

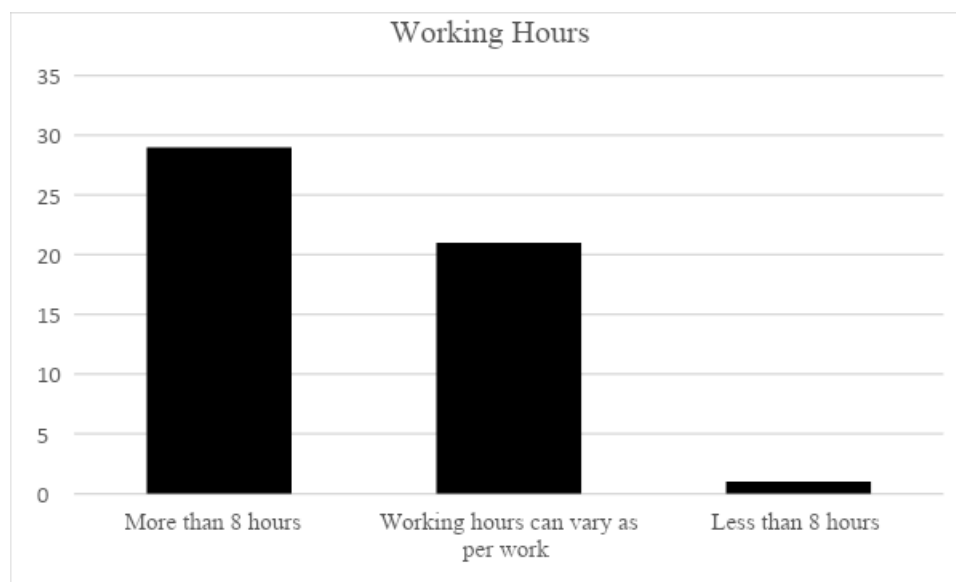
Another surprising response of the participants was regarding fire extinguishers. In a factory which depends on high heat pressure to manufacture products, it is completely neglectful of the enterprise to fail to keep a fire extinguisher. Also, most respondents were unsure of its use, and some even denied its importance. Also, most respondents were unsure of its use, and some even denied its importance. On the other hand, some respondents were aware of the risk regarding fire and said it would have been better if there were extinguishers in distinct parts of the factory, not just the chimney area. Also, regarding the safety equipment, there were some respondents who said it was not necessary. This statement was followed by their opinion on how most workers do not use such gears even if they are provided by the kilns. Whereas the others were concerned about injuries as brick kilns are highly labour-intensive factories and demanded basic equipment like helmets and gloves.

For other statements, such as regarding break time between their working hours. Many respondents agreed with this statement as they get certain intervals of time for lunch break. Similarly, one of the areas of strongest agreement of respondents was regarding maternity leave. This is because everyone understood the incapability of working during pregnancy. They also strongly believe the employer is responsible for compensation for any injuries caused while working. They also agreed with the statement that medical facilities in responsibility of a medical partitioner must be available for immediate response. Likewise, most respondents showed concerns about electrical lines too. And lastly, they strongly believe that enterprise and are responsible for their safety and health.

#### **4.4. Practice (Current practices regarding occupational safety and health in brick kilns)**

This section defines the current practices at brick kilns selected for this study from the labourers' point of view. It explains in what ways practices in the kilns match or contradict the policies regarding OSH. If there are any contradictions, the findings from this section will assist in identifying gaps.

##### **4.4.1. Working Hours and Break Time**



*Figure 6: Working hours per day*

*Figure 6* represents the working hours of a labourer per day. As shown in the figure, most respondents, 29, work more than 8 hours, while 21 said their working hours could vary as per their work and only one answered he/she worked less than 8 hours. Although many respondents had answered 8 hours as optimum time to work per day in the knowledge section, they are working more than that. This practice aligns with their negative attitude towards not working more than 8 hours.

For break time, when asked if they get break between their working hours, almost all, 49 respondents said they got certain hours of break in between their entire day of work. The remaining two explained that there is no schedule of working hours and break time in their routine as drivers. Their work started when a truck was ready for transportation and every time it was their break time when they did not have trucks loaded. However, this was not the case for other respondents who were drivers. They also had the same break time as other workers in the kiln. In one of the kilns that was studied, had alarms to notify the beginning and end of break hours.

#### **4.4.2. Maternity Leave and Care Leave**

Labour Act, 2017 (2074) clearly states that, pregnant female labourer shall get maternity leave of fourteen weeks before or after delivery. While the husband of a pregnant woman shall also get paid maternity care leave for a period of fifteen days. Looking into this policy, the respondents were asked whether the pregnant women and their husbands get leave or not and the results are as follows;

Leave	Yes	No	Don't know
Maternity Leave	50	1	0
Care Leave	41	3	7

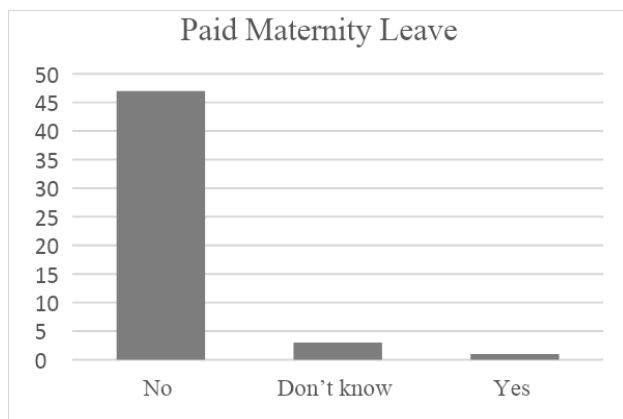
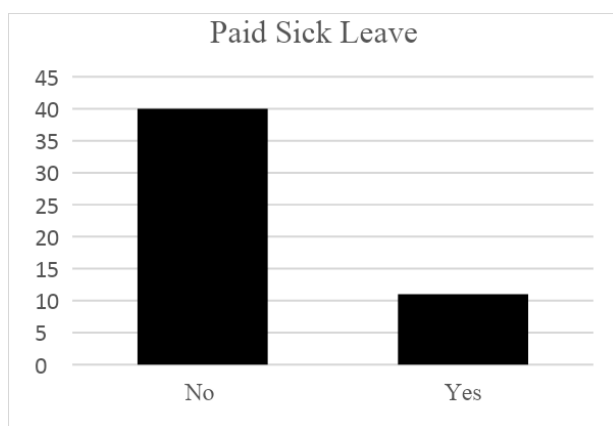
*Table 12: Provision of Maternity and Care Leave*

As shown in *Table 12*, almost all of the participants agreed that the pregnant women got maternity leave. In the case of care leave, 7 of the respondents were unsure while 3 said the husbands did not get care leave. However, the period of leave was not specified as in the policies. The respondents stated that, the working women continued to work unless they are

incapable of doing any kinds of work. Or else, they would continue working up to their limits. In the case of their husbands, the respondents said that they could ask for leave but would not immediately stop their work unless they had to take a leave. Some male respondents also added that, the women could take care of themselves, unless there was an emergency, their wives would be doing fine. Hence, it is clear that there are no specified days for care leave as well.

During the survey as well, there were no pregnant woman seen to be working.

#### 4.4.3. Paid Leave



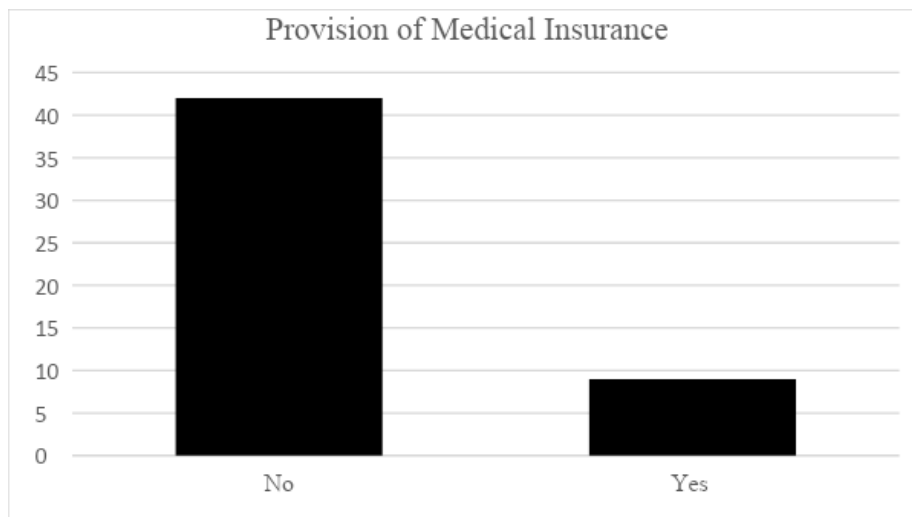
*Figure 7: Paid Sick Leave*

*Figure 8: Paid Maternity Leave*

The above two figures present provisions of paid sick and maternity leave. The policies states that, sick leave of 12 days (about 1 week 5 days) a year and maternity leave of 60 days (about 2 months) must be paid. However, as per the results, it is identified that, the workers in brick kilns do not get paid sick or maternity leave. This result is evident by the responses of majority saying

that they do not get leave. The majority for sick leave is 40 and for maternity leave is 47 out of all 51 respondents.

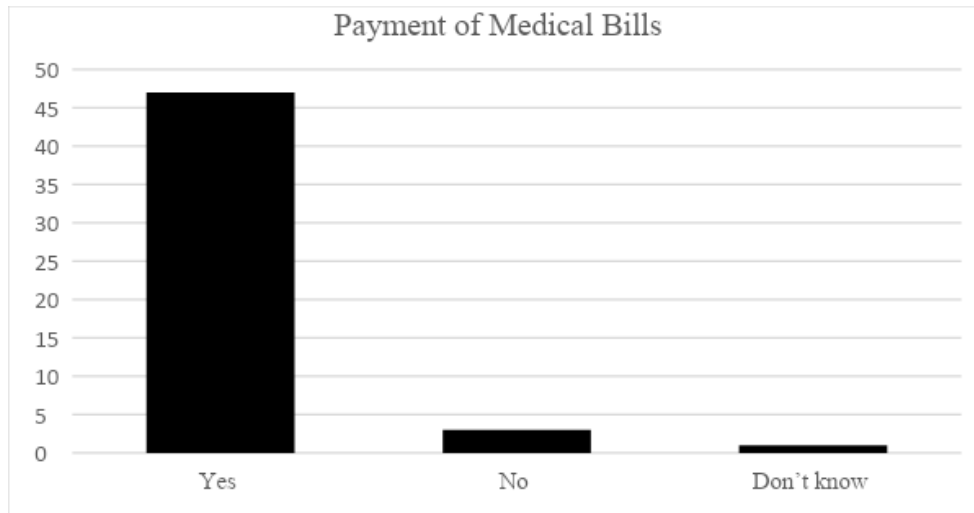
#### 4.4.4. Provisions regarding Medical Insurances



*Figure 9: Provision of Medical Insurance*

When the respondents were asked about medical insurance provision, most (42 of them) said they were uninsured. The remaining 9 respondents said their insurance was done. However, those who were insured were drivers and workers in higher posts like managers and supervisors. Among those 9 insured respondents, 7 said their insurance was done by the employer while 2 of them had done their insurances personally.

#### 4.4.5. Payment of Medical Bills by the Employer

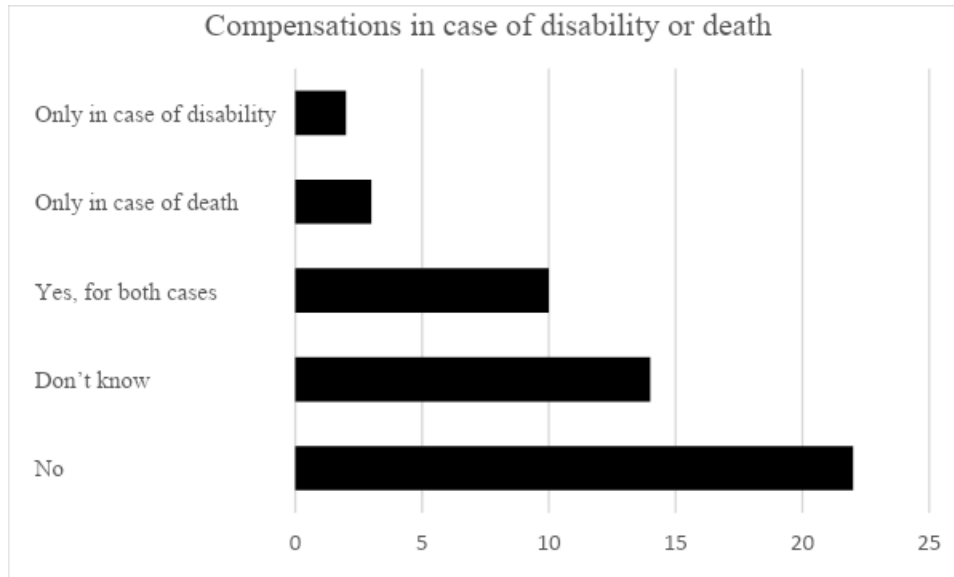


*Figure 10: Payment of Medical Bills by the Employer*

Among all the participants, 47 agreed that the employer compensated for medical injuries that occurred while the workers performed their assigned work. Whereas 3 said the employer did not pay for the bills and 1 did not know about such provisions. The Labour Act in Nepal clearly states that in case a worker is injured while doing a work designated by the Enterprise, the whole amount for their treatment shall be paid by the employer. However, the respondents who denied this statement said that the employer only looked after major injuries and for the minor injuries, they made expenses by themselves.

#### **4.4.6. Compensations in case of Disability or Death**

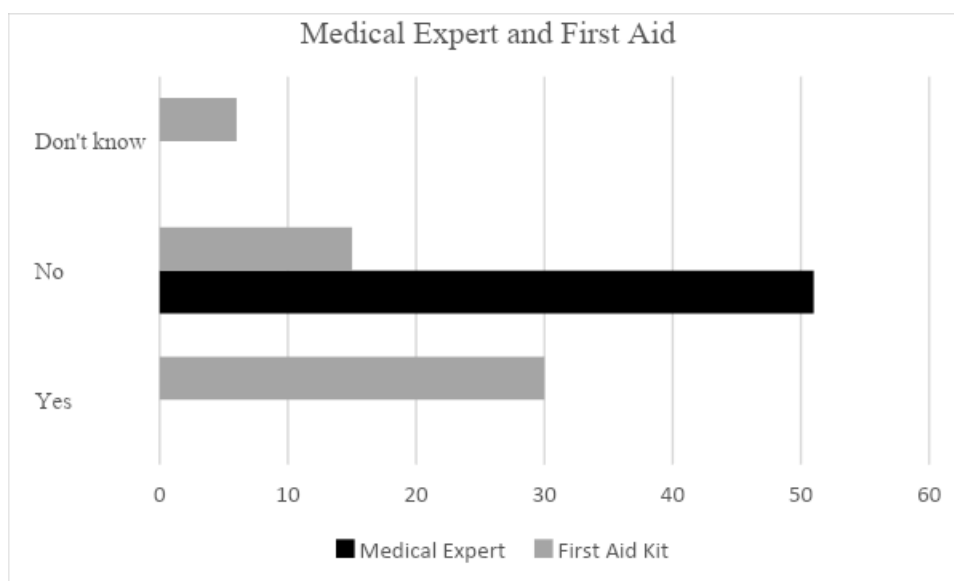
With the expenses made for medical injuries, Nepal's policies also state that, there must be made compensations based on degree of disability or loss in life.



*Figure 11: Compensations in case of Disability or Death*

According to *Figure 11*, most of the respondents (22 of them) said that there were no provisions regarding disability or death of workers in the kiln. 14 of them said they did not know about it. While 10 responded that the employer compensated for both cases but did not know how much exactly. 3 of them said compensation was only made to the family of dead ones, and 2 replied that a certain amount was paid only in case of disability.

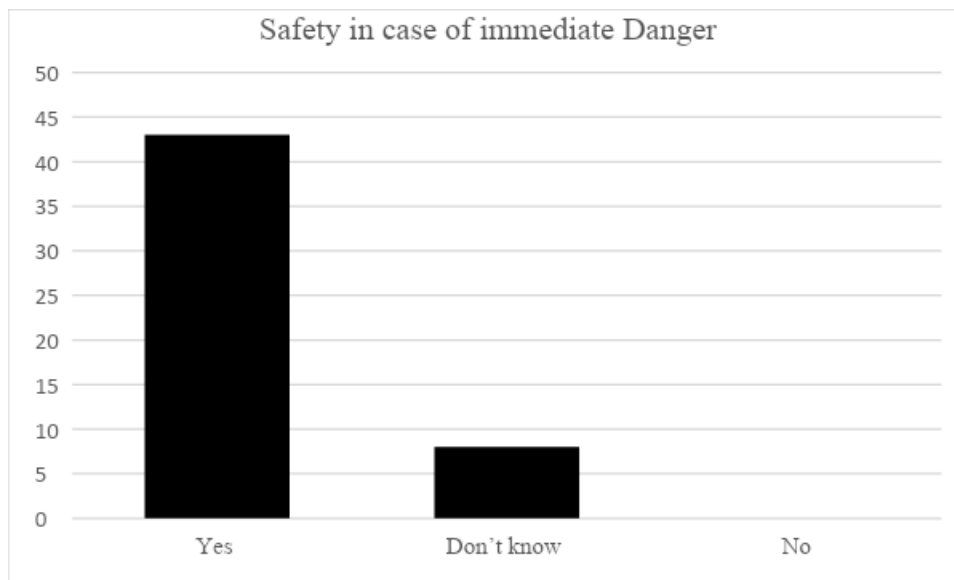
#### **4.4.7. Presence of medical expert and first aid kit in the kiln**



*Figure 12: Presence of medical expert and first aid kit in the kiln*

As per the policies, every manufacturing enterprise must have facilities of first aid in responsibility of a medical practitioner. However, as per the results, 15 respondents said there were no provisions of first aid kit within the kiln. Similarly, 6 did not know if there were kits available. 30 said they had first aid facilities but only with basic medicines such as betadine and paracetamol. In addition to that, there were no medical experts present at the kiln site which is evident by 100 percent responses in the option 'no'. While filling out the observation checklist as well, it was clear that there were no health experts present. But, the kilns had anticeptives to treat minor injuries and paracetamols to cure headache as first aid.

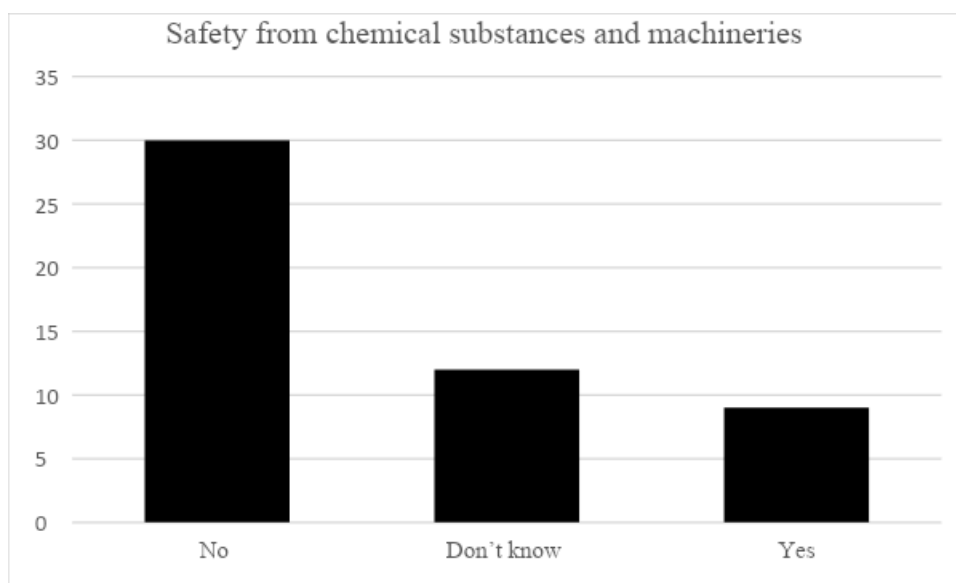
#### **4.4.8. Safety in case of immediate danger**



*Figure 13: Safety in case of immediate danger*

When the respondents were asked if they could stop working in case of immediate danger, 43 of them responded ‘yes’, which means they could stop their work, while 8 of them said they did not know as they had not been through such a situation.

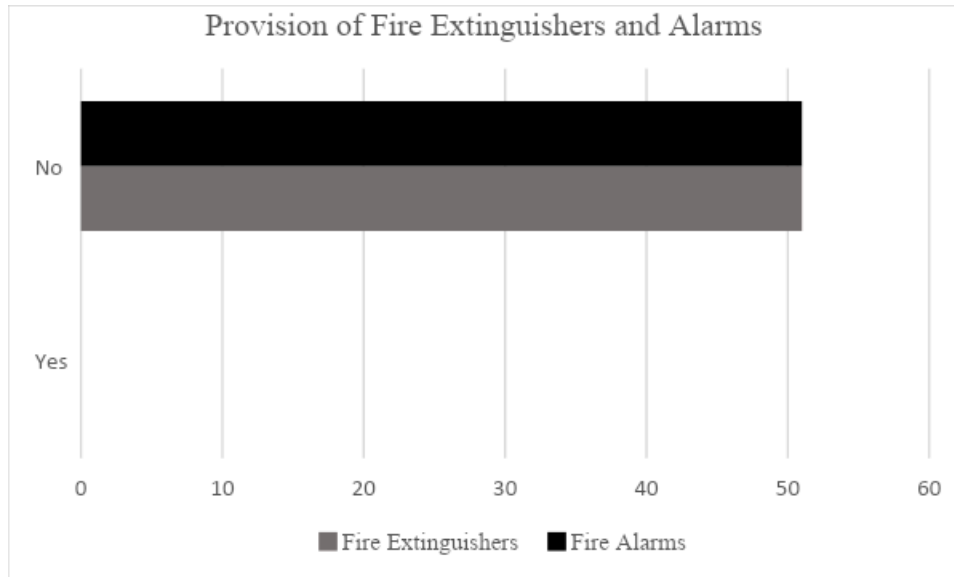
#### 4.4.9. Safety from chemical substances and machineries



*Figure 14: Safety from chemical substances and machineries*

Brick kilns are manufacturing companies that use several types of chemicals to form bricks and machinery to increase efficiency. In such a workplace, to ensure workers OSH, safety regarding chemical substances and machinery is necessary. However, most of the respondents, 30 claimed that there are no safety provisions against it. 12 did not know about it and only 9 said that there had been safety measures taken. Through further investigation, it was identified that no special training was given regarding machinery, and they did not have adequate knowledge of the type of chemicals being used. In addition to it, there were no signs or cautions for visitors as well.

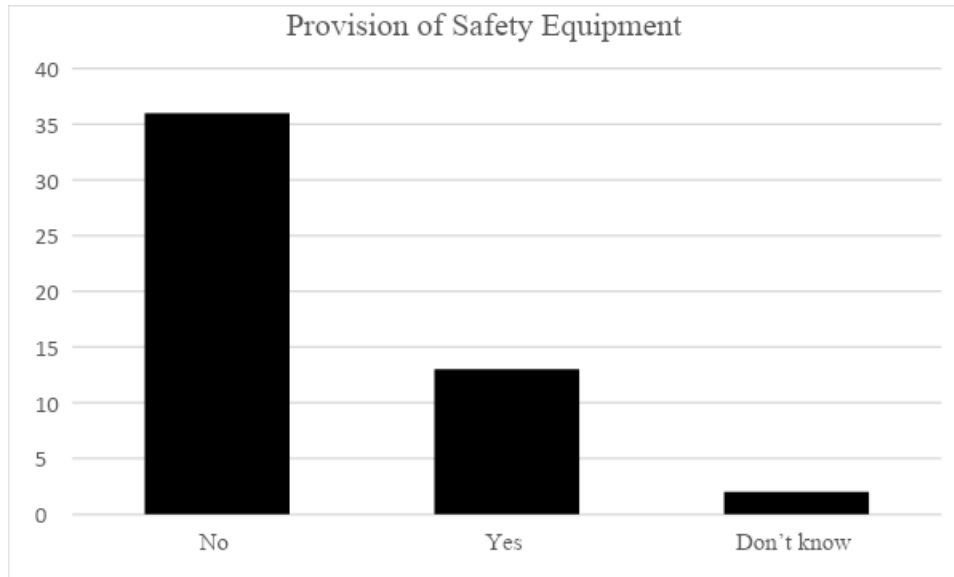
#### 4.4.10. Provision of Fire Extinguishers and Alarms



*Figure 15: Provision of Fire Extinguishers and Alarms*

Brick kilns use high heat pressure to burn bricks. In such a working environment there is always a potential risk of fire. As a result, measures like fire alarms and extinguishers should be adopted. Contrarily, from the responses and observation it was clear that there were no fire alarms or extinguishers in the kiln areas. However, there was an alarm in one of the kilns that is being studied, but it went off only to notify workers about break time.

#### **4.4.11. Provision of Safety Equipment**



*Figure 16: Provision of Safety Equipment*

Safety equipment here refers to certain gears that the workers can wear to minimize the risks of injuries. According to *Figure 16*, most respondents, 36, said they were not provided with safety equipment. Only 13 responded that they were given certain gears but not this year. It was the past year when they received those gears. And 2 of the remaining respondents did not know if they were provided or not. Some of the respondents also added that they were given masks during the year of pandemic and have not been receiving anything for this season.

Among the 13 respondents who said they were given safety equipment, 5 said they were provided with helmets and masks, 3 said only helmets, 2 said helmets, masks, and special work uniforms, 2 said only gloves and, 1 said gloves and masks. In addition to it, they also stated that, even if they were provided with such equipment, the workers did not use it. This was also evident through observation, as I could see helmets hanging outside the temporary huts of the workers, but none of them were seen to be using it during work.

## **Chapter 5: Conclusion and Recommendations**

This study clarifies that there are many policies regarding OSH that have been identified by the Government of Nepal in national Acts and through ratifying international conventions. However, in the case of brick kilns in Bhaktapur, results indicate that the factories are unable to keep up with the policies identified. This research intended to examine the practice of policies from three different dimensions; level of knowledge regarding OSH among labourers, their attitude towards it, and practice of OSH policies in real-life situations.

It was identified that most workers in brick kilns are either uneducated or poorly educated. Still, they had a moderate level of knowledge regarding these policies. Although the workers did not know exactly what had been stated in the policies, they were aware of laws and policies. In case of attitude, the respondents showed a highly positive attitude toward implementation of OSH policies and determined them as a necessity in every workplace. Despite that, the practice of those policies was found to be lacking in the kilns. Certain policies like compensation for injuries, breaks between working hours, maternity and sick leave were highly practiced. While policies such as, medical insurances of labourers, working hours, paid sick and maternity leave, provision of safety equipment and many others were not practiced. This might be due to lack of bargaining power among the labourers. The workers in brick kilns are mostly from villages. They are not well-educated and do not have skills in different works. Therefore, they have limited job opportunities and no alternatives which oblige them to continue working at the kilns with minimum facilities. This showed that there was a huge gap in existing OSH policies and its practice in real life situation of brick kilns. In addition to it, most of the labour policies do not have specific laws as per the nature of work to perform in different enterprises. These policies do not clearly focus on brick kilns too, which leads to failure in addressing the exact problems faced in the brick sector.

As per the findings from this study, it is highly recommended that further investigation regarding threats and hazards in enterprises of various nature must be performed separately to develop laws and policies accordingly. The enterprise must acknowledge its responsibility towards the OSH of its workers, and the labourers must also speak for their occupational rights. The enterprise must offer a safe place for workers to communicate and make complains. They must also have the right to join unions where they can talk about their griefs. From the results, it was identified that

the workers were aware of policies, but they just agreed with what they were provided. So, I think that it is the responsibility of the workers themselves as well to fight for what they deserve. Further, I suggest a monitoring team be brought into action by GoN to strictly inspect the implementation of policies. It would be better if the team would make surprise inspections regularly in interval of one or two months. In this way, actions of enterprises can be tracked, and the effectiveness of the formulated policies can also be tested.

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## **Annex:**

### **Survey Questionnaire**

Respondents: Labourers at the brick kilns of Bhaktapur

Namaste, my name is Sangina Dongol. I am an undergraduate student at Kathmandu University doing my Bachelors in Community Development. As a research paper for my final year, I am conducting this study titled as "Policies into Practice: A KAP Survey to investigate the Policies regarding Occupational Safety and Health of Labourers working in Brick Kilns of Bhaktapur." My research's main purpose is to identify whether the brick kilns have been adopting occupational safety and health policies as stated by the National Acts and International Conventions.

नमस्ते, मेरो नाम संगिना डंगोल हो। म काठमाडौं विश्वविद्यालयमा सामुदायिक विकासमा स्नातक गर्दैछु। मेरो अन्तिम वर्षको अनुसन्धान पत्रको रूपमा, म यो अध्ययन "व्यवहारमा नीतिहरू: भक्तपुरका ईटा भट्टामा काम गर्ने श्रमिकहरूको व्यावसायिक सुरक्षा र स्वास्थ्यसम्बन्धी नीतिहरूको अनुसन्धान गर्नका लागि एक केएपी सर्वेक्षण" शीर्षकको अध्ययन गर्दैछु। मेरो अनुसन्धानको मुख्य उद्देश्य ईटा भट्टाहरूले राष्ट्रिय ऐन र अन्तर्राष्ट्रिय महासन्धिहरू अनुसार पेशागत सुरक्षा र स्वास्थ्य नीतिहरू अपनाइरहेका छन् कि छैनन् भनी पहिचान गर्नु हो।

Your participation in this survey is completely voluntary. You have the choice to refuse to take part in this survey or exit at any time without penalty. You also have the freedom to decline to answer any question if you do not wish to answer. There are no direct benefits for participating in this research study. However, your responses will contribute to the existing knowledge and will help suggest recommendations to government bodies, non-government organizations, the factory itself to make necessary changes as per requirement.

यस सर्वेक्षणमा तपाईंको सहभागिता पूर्णतया स्वैच्छिक हो। तपाईंसँग यस सर्वेक्षणमा भाग लिन अस्वीकार गर्ने वा कुनै पनि समयमा दण्ड बिना बाहिर निस्कन विकल्प छ। यदि तपाईं जवाफ दिन चाहनुहुन्न भने तपाईंसँग कुनै विशेष प्रश्नको जवाफ दिन अस्वीकार गर्ने स्वतन्त्रता पनि छ। यस अनुसन्धान अध्ययनमा भाग लिनको लागि कुनै प्रत्यक्ष लाभहरू छैनन्। यद्यपि, तपाईंका प्रतिक्रियाहरूले अवस्थित ज्ञानमा योगदान पुर्याउनेछ र आवश्यकता अनुसार आवश्यक परिवर्तनहरू गर्न सरकारी निकायहरू, गैर-सरकारी संस्थाहरू, कारखाना आफैलाई सिफारिसहरू सुझाव दिन मद्दत गर्नेछ।

The information collected will be kept confidential and your identity will not be revealed in any part of the final paper.

संकलित जानकारी गोप्य राखिनेछ र अन्तिम पत्रको कुनै पनि भागमा तपाईंको पहिचान खुलाइने छैन।

Would you like to participate in this study?

1. I would like to
2. I don't want to

के तपाईं यस अध्ययनमा भाग लिन चाहनुहुन्छ?

1. म चाहन्छु
2. म चाहन्न

### **Section 1: General Information of the Workers**

#### **खण्ड १: कामदारहरूको सामान्य जानकारी**

1.1. Age:

१.१. उमेर:

1.2. Sex:

- Male
- Female

१.२. लिंग:

- पुरुष
- महिला

1.3. Caste/Ethnicity:

१.३. जात/जाति:

1.4. Permanent Address:

१.४. स्थाई ठेगाना:

1.5. Temporary Address:

- Industry quarter
- Rent
- Owns a house

१.५. अस्थायी ठेगाना:

- उद्योग त्रैमासिक
- भाडामा
- घरको मालिक

1.6. Academic Qualifications:

१.६. शैक्षिक योग्यता:

- Primary (1-8)
- Secondary (9-12)
- Higher (bachelor's and above)
- Illiterate (निरक्षर)

1.7. Marital status:

- Married
- Unmarried
- Divorced
- Separated

१.७. वैवाहिक स्थिति:

- विवाहित
- अविवाहित
- सम्बन्धविच्छेद भएको
- अलग गरिएको

1.8. Number of members in household:

१.८. परिवारमा सदस्य संख्या:

1.9. Migratory Status:

- Seasonal
- Occasional
- Permanent

१.९. प्रवासी स्थिति:

- मौसमी
- सामयिक
- विशेष कारणहरू
- स्थायी

1.10. Number of working adults in the family.

१.१०. परिवारमा कार्यरत वयस्कहरूको संख्या।

.....

1.11. Number of children working in the family.

१.११. परिवारमा काम गर्ने बालबालिकाको संख्या।

.....

1.12. Type of work

- Manual
- Technical

१.१२. काम को प्रकार

- म्यानुअल
- प्राविधिक

**Section 2: Knowledge (Understanding of labourers regarding occupational health and safety)**

**खण्ड २: ज्ञान (व्यावसायिक स्वास्थ्य र सुरक्षा सम्बन्धी श्रमिकहरूको बुझाइ)**

2.1. How many hours do you think a laborer must work in a day?

- 12 hours
- 8 hours
- 6 hours
- As much as they can

२.१. एक श्रमिकले दिनमा कति घण्टा काम गर्नुपर्छ जस्तो लाग्छ?

- १२ घण्टा
- ८ घण्टा
- ६ घण्टा
- उनीहरूले सकेसम्म

2.2. How many hours of rest do you think a labourer needs after continuous work of 5 hours?

- 1 hour
- 10 mins
- Half an hour
- No break needed

२.२. ५ घण्टा लगातार काम गरेपछि श्रमिकलाई कति घण्टा आराम चाहिन्छ जस्तो लाग्छ ?

- १ घण्टा
- १० मिनेट
- आधा घण्टा
- कुनै ब्रेकको आवश्यक छैन

2.3. Should sick leave be paid or unpaid?

- Paid
- Unpaid
- Don't know

२.३. बिरामी छुट्टीको भुक्तानी गर्नुपर्छ वा पर्दैन?

- भुक्तानी गर्नुपर्छ
- भुक्तानी गर्नु पर्दैन
- थाहा छैन

2.4. When do you think a pregnant working woman should get maternity leave?

- Before the delivery
- After the delivery
- Before and after the delivery
- Only during the delivery

२.४. काम गर्ने गर्भवती महिलाले सुत्केरी बिदा कहिले पाउनु पर्छ जस्तो लाग्छ?

- डेलिभरी अघि
- डेलिभरी पछि
- डेलिभरी अघि र पछि
- डेलिभरीको समयमा मात्र

2.5. Maternity leave must be paid.

- True
- False
- Don't know

२.५. सुत्केरी बिदा लिँदा उद्यमबाट छुट्टीको भुक्तानी दिनु पर्छ।

- साँचो
- गलत
- थाहा छैन

2.6. Do you think the husbands of pregnant woman should also get leave?

- Yes, they should
- No, they should not
- Don't know

२.६. गर्भवती महिलाका श्रीमानले पनि बिदा पाउनुपर्छ जस्तो लाग्छ ?

- हो, पाउनुपर्छ
- होइन, पाउनुपर्दैन
- थाहा छैन

2.7. What do you understand by medical insurance?

.....  
२.७. चिकित्सा बीमा भनेको के बुझ्नुहुन्छ ?  
.....

2.8. Who do you think is responsible for procuring medical insurances of labourers?

- The labourers themselves
- The employer
- The government
- The insurance company
- Don't know

२.८. तपाईंको विचारमा श्रमिकको स्वास्थ्य बीमा गराउने जिम्मेवारी कसको हो ?

- श्रम आफैं
- रोजगारदाता
- सरकार
- बीमा कम्पनी
- थाहा छैन

2.9. If a labourer gets injured while working, who shall pay for the expenses?

- The labourer
- The hospital
- The government
- The employer

२.९. काम गर्ने क्रममा श्रमिक घाइते भएमा खर्च कसले तिर्नुपर्छ?

- श्रम
- अस्पताल
- सरकार
- रोजगारदाता

2.10. What facilities should be available for immediate response regarding medical issues?

- First aid kit
- First aid facilities in the responsibility of medical practitioner
- Only medicines
- Not necessary

२.१०. चिकित्सा सम्बन्धित समस्याहरूको तत्काल प्रतिक्रियाको लागि के सुविधाहरू उपलब्ध हुनुपर्छ?

- प्राथमिक उपचारको सामान
- चिकित्सकको जिम्मेवारीमा प्राथमिक उपचार सुविधा
- औषधि मात्र
- आवश्यक छैन

2.11. Provisions relating to occupational safety and health should include,

- Only physical protection
- Protection from chemical substances
- Safety in machineries
- All of above

२.११. पेशागत सुरक्षा र स्वास्थ्य सम्बन्धी के के प्रावधानहरू समावेश हुनुपर्छ?

- केवल शारीरिक सुरक्षा
- रासायनिक पदार्थहरूबाट सुरक्षा
- मेसिनहरूमा सुरक्षा
- माथिका सबै

2.12. Fire extinguishers are a necessity in brick factories.

- True
- False
- Don't know

२.१२. ईटा कारखानाहरूमा आगो निभाउने उपकरणहरू आवश्यक छन्।

- साँचो
- गलत
- थाहा छैन

2.13. What can be an effective way of getting alerts in case of fire?

- Notifying every labourer through phone call
- Ear-to-ear information
- Screaming
- Fire alarms

२.१३. आगलागीको अवस्थामा जानकारी प्राप्त गर्ने प्रभावकारी तरिका के हुन सक्छ?

- फोन कल मार्फत प्रत्येक श्रमलाई सूचित गर्ने
- कान-देखि-कान जानकारी
- चिच्याउने
- आगलागीको अलार्म

2.14. What can be necessary safety equipment for labourers working in the brick kiln?

- Helmets
- Gloves
- Masks
- Glasses
- Boots
- Special work uniforms
- All of the above

२.१४. ईटाभट्टामा काम गर्ने मजदुरहरूको लागि आवश्यक सुरक्षा उपकरण के हुन सक्छ?

- हेलमेट
- पन्जा
- मास्क
- चश्मा
- जूता
- विशेष काम सम्बन्धी वर्दी
- माथिका सबै

### **Section 3: Attitude (How do the labourers perceive occupational safety and health)**

खण्ड ३: मनोवृत्ति (कामदारहरूले व्यावसायिक सुरक्षा र स्वास्थ्यलाई कसरी बुझ्छन्)

Listed below are statements regarding occupational safety and health of labourers working in brick kiln. Please indicate whether you strongly disagree, disagree, are unsure, agree, or strongly agree with each statement. Respondents can pick only one option per statement.

ईटा भट्टामा काम गर्ने मजदुरहरूको पेशागत सुरक्षा र स्वास्थ्य सम्बन्धी कथनहरू तल सूचीबद्ध छन्। कृपया संकेत गर्नुहोस् कि तपाईं दृढ रूपमा असहमत हुनुहुन्छ, असहमत हुनुहुन्छ, अनिश्चित हुनुहुन्छ, सहमत हुनुहुन्छ, वा प्रत्येक कथनसँग दृढतापूर्वक सहमत हुनुहुन्छ। उत्तरदाताहरूलाई प्रति कथन मात्र एउटा विकल्प छनोट गर्न अनुमति छ।

S. N.	Statements कथनहरू	Strongly Disagree 1	Disagree 2	Are Unsure 3	Agree 4	Strongly Agree 5
3.1	Labourers should not work more than 8 hours per day. श्रमिकले दैनिक ८ घण्टाभन्दा बढी काम गर्नु हुँदैन।					
3.2	Labourers should get break time in between their working hours. कामदारहरूले काम गर्ने समयको बीचमा ब्रेक टाइम पाउनुपर्छ।					
3.3	In case of sick leave, labourers must get paid leave. बिरामी बिदाको अवस्थामा, श्रमिकले तलब बिदा पाउनुपर्छ।					
3.4	Maternity leave is necessary for pregnant working women. गर्भवती काम गर्ने महिलाका लागि सुत्केरी बिदा अनिवार्य छ।					
3.5	Every labourer must have their medical insurance done. प्रत्येक श्रमिकको स्वास्थ्य बीमा गरिनुपर्छ।					
3.6	The employer must procure medical insurances of every labourer. रोजगारदाताले प्रत्येक श्रमिकको स्वास्थ्य बीमा गर्नुपर्छ।					
3.7	While working, if a labourer gets injured, the employer is responsible for the compensation of medical expenses.					

	काम गर्ने क्रममा, श्रमिक घाइते भएमा, रोजगारदाताले चिकित्सा खर्चको क्षतिपूर्तिको लागि जिम्मेवार हुनुपर्छ।					
3.8	There should be equipment and medicines in responsibility of a health expert present at the brick kiln. ईँटाभट्टामा स्वास्थ्य विशेषज्ञको जिम्मेवारीमा उपकरण र औषधिको व्यवस्था हुनुपर्छ।					
3.9	Fire extinguishers should be present at the dock (fireplace). डकमा आगो निभाउने उपकरणहरू हुनुपर्छ।					
3.10	Electricity lines must be placed properly as anyone can get electric shock. जो कोहीलाई पनि बिजुलीको झटका लाग्न सक्ने भएकाले बिजुलीका लाईनहरू राम्रोसँग राख्नुपर्छ।					
3.11	Safety equipment like helmets, gloves, masks, glasses, special uniforms, boots are must need for every labourer as per the nature of their work. प्रत्येक श्रमिकको कामको प्रकृति अनुसार हेलमेट, पञ्जा, मास्क, चस्मा, विशेष पोशाक, जुता जस्ता सुरक्षा उपकरणहरू आवश्यक पर्छ।					
3.12	No enterprise should ignore the matter of occupational safety and health. कुनै पनि उद्यमले व्यावसायिक सुरक्षा र स्वास्थ्यको कुरालाई बेवास्ता गर्नु हुँदैन।					
3.13	Labourers also have an important role in implementation of occupational safety and health policies. पेशागत सुरक्षा र स्वास्थ्य नीतिहरूको कार्यान्वयनमा श्रमिकहरूको पनि महत्त्वपूर्ण भूमिका हुन्छ।					

#### **Section 4: Practice (What are the current practices regarding occupational safety and health in brick kilns)**

**खण्ड ४: अभ्यास (ईँटा भट्टामा पेशागत सुरक्षा र स्वास्थ्य सम्बन्धी हालका अभ्यासहरू के हुन्)**

4.1. How many hours do you work in a day?

- Less than 8 hours

- 8 hours
- More than 8 hours
- Working hours can vary as per work

४.१. तपाईं एक दिनमा कति घण्टा काम गर्नुहुन्छ?

- ८ घण्टाभन्दा कम
- ८ घण्टा
- ८ घण्टाभन्दा बढी
- कामको घण्टा काम अनुसार फरक हुन सक्छ

4.2. Do you get break time in between your working hours?

- Yes
- No

४.२. के तपाईं तपाईंको काम को घण्टा को बीचमा ब्रेक समय पाउनुहुन्छ?

- पाउँछु
- पाउँदैन

4.3. Do labourers here get paid for sick leave?

- Yes
- No

४.३. यहाँ काम गर्नेहरूले बिरामी बिदाको लागि भुक्तानी पाउँछन्?

- पाउँछन्
- पाउँदैनन्

4.4. Do working pregnant woman get maternity leave?

- Yes
- No

४.४. काम गर्ने गर्भवती महिलाले सुत्केरी बिदा पाउँछन् ?

- पाउँछन्
- पाउँदैनन्

4.5. Is the maternity leave paid?

- Yes
- No
- Don't know

४.५. के गर्भवती बिदामा भुक्तानी पाइन्छ?

- पाइन्छ
- पाउँदैन
- थाहा छैन

4.6. Does the husband of a pregnant woman get care leave?

- Yes
- No
- Don't know

४.६. के गर्भवती महिलाको श्रीमानले हेरचाह बिदा पाउँछन्?

- पाउँछन्

- पाउँदैनन्
- थाहा छैन

4.7. Do you have medical insurance?

- Yes
- No
- Don't know

४.७. के तपाईसँग चिकित्सा बीमा छ?

- छ
- छैन
- थाहा छैन

4.8. Did the employer get your insurance done? (Skip logic)

- Yes
- No

४.८. के रोजगारदाताले तपाईंको बीमा गराउनुभयो?

- छ
- छैन

4.9. Does the employer pay for the medical bills if a labourer gets injured while working?

- Yes
- No
- Don't know

४.९. काम गर्ने क्रममा श्रमिक घाइते भएमा के रोजगारदाताले मेडिकल बिलहरू तिर्छ?

- तिर्छ
- तिर्दैन
- थाहा छैन

4.10. Are there any kind of extra compensation for people who become disabled while working or to the family members of labourer who dies working?

- Only in case of disability
- Only in case of death
- Yes, for both cases
- No
- Don't know

४.१०. काम गर्दा अपाङ्गता भएका व्यक्तिहरू वा काम गर्दा मर्ने श्रमिकका परिवारका सदस्यहरूलाई कुनै प्रकारको अतिरिक्त क्षतिपूर्ति दिइन्छ?

- अशक्तताको अवस्थामा मात्र
- मृत्युको अवस्थामा मात्र
- हाँ, दुवै अवस्थामा
- छैन
- थाहा छैन

4.11. Is there a medical expert present at the kiln?

- Yes
- No

४.११. भट्टामा चिकित्सा विशेषज्ञ उपस्थित छ?

- छ
- छैन

4.12. Are there provisions of a first aid kit for immediate response to injuries?

- Yes
- No
- Don't know

४.१२. के त्यहाँ चोटपटकको तत्काल प्रतिक्रियाको लागि प्राथमिक उपचार किटको व्यवस्था छ?

- छ
- छैन
- थाहा छैन

4.13. In case of immediate danger are you allowed to stop working?

- Yes
- No
- Don't know

४.१३. तत्काल खतराको अवस्थामा तपाईंलाई काम रोक्न अनुमति छ?

- छ
- छैन
- थाहा छैन

4.14. Are there any provisions regarding safety from chemical substances and machinery?

- Yes
- No
- Don't know

४.१४. के त्यहाँ रासायनिक पदार्थ र मेसिनरीहरूबाट सुरक्षा सम्बन्धी कुनै प्रावधानहरू छन्?

- छ
- छैन
- थाहा छैन

4.15. Are there provisions of fire extinguishers in the factory area?

- Yes
- No
- Don't know

४.१५. कारखाना क्षेत्रमा आगो निभाउने उपकरणको व्यवस्था छ?

- छ
- छैन
- थाहा छैन

4.16. Are there fire alarms in the brick kiln?

- Yes
- No
- Don't know

४.१६. के त्यहाँ ईटा भट्टामा आगलागीको अलार्म छ?

- छ
- छैन
- थाहा छैन

4.17. Are the labourers in the kiln provided with safety equipment like helmets, gloves, masks, etc.?

- Yes
- No
- Don't know

४.१७. के भट्ठामा काम गर्नेहरूलाई हेलमेट, पञ्जा, मास्क आदि सुरक्षा उपकरणहरू उपलब्ध गराइन्छ?

- छ
- छैन
- थाहा छैन

4.18. If yes, what equipment is provided? (Skip logic)

- Helmets
- Gloves
- Boots
- Masks
- Special work uniforms
- Glasses
- All of above

४.१८. यदि हो भने, कुन उपकरणहरू प्रदान गरिन्छ?

- हेलमेट
- पन्जा
- जुता
- मास्क
- विशेष काम सम्बन्धी वर्दी
- चश्मा
- माथिका सबै

4.19. Do the labourers here use such equipment? (Skip logic)

- Yes
- No

४.१९. के यहाँका मजदुरहरूले त्यस्ता उपकरणहरू प्रयोग गर्छन्?

- गर्छन्
- गर्दैनन्

### Observation Checklist

**Project-** Policies into Practice: A KAP Survey to investigate the Policies regarding Occupational Safety and Health of Labourers working in Brick Kilns of Bhaktapur

**Objective-** This observation checklist is designed for the purpose of academic research report. The main objective of the project is to identify if the brick kilns have been implementing Occupational Safety and Health policies as per the national and international standards.

**Date-** 14<sup>th</sup> June, 2023.

**Observer-** Sangina Dongol

**Location-** Brick kilns in Bhaktapur

*Note: Certain criterion are present in the table below and the observer must choose 'yes' or 'no' according to the prevalence of practice in the brick kilns.*

S.No.	Criterion	Yes	No	Comments/Remarks
1.	Break time for workers.			
2.	Pregnant working woman in the kiln.			
3.	Children working in the kiln.			
4.	Availability of first aid in the brick kiln.			
5.	Availability of health experts in the kiln.			
6.	Workers wearing safety gears.			
7.	Well managed electrical lines.			
8.	Provision of fire alarms.			
9.	Provision of fire extinguishers.			
10.	Safe placement of hazardous chemical substances and machineries.			