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COLLEGE OF DEVELOPMENT STUDIES

CENTER FOR FOOD SECURITY STUDIES

EFFECTS OF COVID-19 LOCKDOWN MEASURES ON
THE FOOD SECURITY STATUS OF SEX WORKERS IN
ADDIS ABABA, ETHIOPIA

BY

GELILA TESFAYE

NOVEMBER, 2021

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FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
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DEVELOPMENT

NOVEMBER, 2021

ADDIS ABABA

Declaration

I declare that this thesis is my original work and has not been presented for a degree or certification in any other Universities, institutions and that all sources of material used for the thesis have been duly acknowledged.

Gelila Tesfaye Bezabh

November, 2021

Addis Ababa

Approval Sheet

Approval by Examination Board

As the member of Board of Examiners of the MSc Thesis Open Defense, we certify that we read and evaluated the thesis prepared by Gelila Tesfaye entitled ‘The impact of COVID-19 lockdown measures on the food security status of sex workers in Addis Ababa, Ethiopia’. We recommended that this thesis acceptance as fulfilling the requirements for the Degree of Master of Science (MSc) in Food Security and Development

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Abstract

COVID-19 is a respiratory disease caused by a new coronavirus that presents pneumonia-like symptoms. Beyond immediate health concerns, COVID-19 has both direct and indirect impacts on food security. The government of Ethiopia took several measures including lockdown to reduce the impacts of the pandemic. Most severely affected by the movement cessations are the urban poor. Sex workers represent an important group that exemplifies the vulnerability of workers in the informal labor sector. The main purpose of this study is to explore the assess COVID-19 lockdown measures on the food security statuses of sex workers in Bole and Akaki Kaliti sub city of Addis Ababa, Ethiopia. This research employed cross-sectional mixed research design and used purposive and snowball sampling technique. The study used HFIAS, FCS and CSI to analyze the food security status of households. The result shows that 94.4% of the respondents have family under their support, 74.4% of them have children and 96.7% of the respondent have no partner. Purchasing food, supporting family, home rent and addiction make up most of their expenses. In addition, 57.8% of them have saving practices and only 20% of them participate in mutual –aid and social networking activities (5.6% Iddir and 14.4% Equb). The HFIAS result showed that 98.1% of the study households are food insecure, whereas, the FCS indicated 87.8% of them are poor and borderline food consumption. The study implied that COVID-19 and its lockdown measures were highly affected the livelihood and food security statuses of the sex workers and their family. The study recommended the need to assess sex workers capacity and based on the assessment prepare entrepreneurship training and activities; create strong and organized sex workers unions in order for them to have a strong voice in society; create new saving option for them with better interest and giving them credit according to their savings.

Keywords: COVID-19, lockdown measures, food security, sex worker, informal labor sectors, Addis Ababa

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Abbreviations and Acronyms

AACAHB:	Ethiopia and Addis Ababa City Administration Health Bureau
AAU:	Addis Ababa University
CD:	Communicable Diseases
CDC:	Center Disease Control
COVID-19:	Coronavirus Disease of 2019
CSI:	Coping Strategies Index
CSO:	Community Social Organization
FAO:	Food and Agriculture Organization
FCS:	Food Consumption Score
FGD:	Focus Group Discussions
FHI:	Family Health International
GDP:	Gross Domestic Product
HFIAP:	Household Food Insecurity Access Prevalence
HFIAS:	Household Food Insecurity Access Scale
HLPE:	High-Level Panel of Experts on Food Security and Nutrition
ID:	Identification Card
KII:	Key Informant Interviews
NGO:	Non-Governmental Organization
SSA:	Sub-Saharan Africa
STI:	Sexually Transmitted Infections

UN: United Nation
VAM: Vulnerability Analysis and Mapping
WFP: World Food Program
WHO: World Health Organization

CHAPTER ONE: INTRODUCTION

1.1. Background

COVID-19 is a respiratory disease caused by a new coronavirus that presents pneumonia-like symptoms. The virus was identified in Wuhan, China, marking the beginning of its spread across the globe (asm.org/Press-Releases, 2020). The World Health Organization declared COVID-19 a pandemic on 11 March 2020, considering its outbreak in many countries (Rahman et al., 2020). According to John Hopkins University and African CDC report, this highly infectious disease has infected about 173 million people and about 3.7 million have died all over the world until June 3, 2021. In addition, in Africa, the coronavirus infected about 4.9 million people, and, 4.4 million have been recovered and about 132 thousand people have died of the virus. Similarly in Ethiopia, about 272 thousand people have been infected, 244 thousand people recovered and 4 thousand people have died from corona. The increasing number of coronavirus cases and deaths pose challenges to the healthcare system, economic development, supply chain, education, and travel pattern of the people (Rahman et al., 2020).

The cessation of economic activity that has followed has presented an unprecedented shock to labor markets and levels of unemployment have surged (Kapoor, 2020). In addition, as Restubog et al. (2020) indicate COVID-19 has set off a distinguishable economic crisis in considerable domains of work and business, including manufacturing, retail, travel and trade. Unemployment is on the rise and even the most stable and former professionals are having their work threatened.

Sub-Saharan Africa is one of the most vulnerable regions to the social and economic impacts of COVID-19. The vulnerability of SSA is attributed to several factors including poor health facilities in many SSA countries and low capacity for testing, timely detection and response to COVID-19 (Ayanlade and Radeny, 2020). A recent analysis has indicated that the risk of transmission of COVID-19 in Africa to be relatively lower than in other continents (Haider et al., 2020). However, the scale of COVID19 infection in the continent and its impact on population health is still unclear. Routine information systems in many parts of the region are inadequate, and the current data are likely to underestimate the true extent of the epidemic. Furthermore, it is unclear as to how COVID-19 will interact with conditions such as malnutrition, HIV/AIDS, tuberculosis, and malaria, one cannot be certain that infection fatality rates in Africa will be similar to those that

have been estimated elsewhere. Africa will have to contend with the same features of COVID-19 that have made this an extremely difficult pandemic to deal with elsewhere (Mboera et al., 2020).

In order to counter the rapid spreading of COVID-19, governments across the world have responded at varying speeds (Kimani et al., 2020). Some of them include intensive public health interventions, international and domestic travel restrictions, increased border controls, massive scale-up of testing and contact tracing, promotion of regular hand washing or sanitizing physical and/or social distancing, and the declaration of states of emergency followed by curfews and complete lockdowns. Consequently, unemployment rates in economically advantaged countries have soared to unprecedented levels as non-essential businesses have been forced to shut down or severely limit their operations in many jurisdictions (Kimani et al., 2020).

Moreover, many African countries such as Kenya have implemented aggressive measures recommended by the World Health Organization to proactively limit the expansion of COVID-19. These include rigid and abrupt stay-at-home measures enforced through curfews and lockdowns, disrupting the social and economic lives of many communities. In particular, the initial movement restrictions (complete and partial lockdown) imposed by countries coincided with the planting periods (important in the agricultural calendar) for most of the staple crops in the region (Ayanlade and Radeny, 2020). According to Messay (2020), the pandemic may cause the greatest economic downturn next to the great global economic depression in the 1930s. Generally, the overall result of the COVID-19 induced economic depression and job cuts among the investment projects may exacerbate extreme poverty and food insecurity. Poverty and food insecurity are still significant challenges in Ethiopia. The causes of food insecurity are multiple and varied, including, but not limited to, extreme weather conditions, environmental degradations, population pressure, less but improving government dedication, and policy drawbacks. Undoubtedly, the COVID-19 pandemic might aggravate the already-precarious food security situations, both along and at the end of the COVID19 pandemic.

However, most severely affected by the movement cessations are the urban poor who reside in the informal settlements. For them, food insecurity is emerging as a major struggle, leading many to seek casual labor in the streets to feed their families, which has culminated in violent altercations, riots, and police brutality as officers enforce the curfew and lockdown (Kimani et al., 2020). Similarly, the COVID-19 pandemic highly affects sex workers. According to Overs (2002), sex

workers are people who receive money or goods in exchange for sexual services, and who consciously define those activities as income generating even if they do not consider sex work as their occupation. Sex workers represent an important group that exemplifies the vulnerability of workers in the informal labor sector (Kimani et al., 2020). Most sex workers run their business at night and, therefore, face the stark realities of entertainment hotspots closures, strict curfew hours, cessation of movements, and promotion of physical distancing with fines and police violence for those who violate the new regulations all of which have been accompanied by a general financial downturn. Kimani et al. (2020) further show that the stringent public health measures taken to limit the COVID-19 epidemic in Kenya have gravely impacted sex workers' livelihoods, leading to unintended fallout including a series of interrelated negative socio-economic and health-related outcomes. In addition, despite sex workers staying in this job for a long time, they are food insecure (Chop et al. 2017; Kennedy et al., 2014). However, during the COVID-19 pandemic, the food security statuses of those groups could be worse because of lockdown and movement restriction.

Addis Ababa is a huge city both with population size and area coverage. According to Regt and Mihret (2020), Addis Ababa has grown exponentially in the past few decades and become the most important destination for internal migrants from rural areas and urban towns. Also, Mekonnen (2020) reported the case of the COVID-19 occurrence in Addis Ababa, the capital city of Ethiopia. It was first reported in Addis Ababa. This in turn led to an expansion of the outbreak to all parts of the city. As a result, public health interventions such as lockdown measures have been relatively more practiced and enforced in Addis Ababa than in other regions. As discussed above because of COVID-19 lockdown measures the life of informal labor sector including sex workers were highly affected and distracted; most of them live with their daily income but movement restrictions and stay at home orders affected their income highly and led to the problems of hunger, unstable life, anxiety, stress, and food insecure. According to the 2021 World Population Review Addis Ababa has about more than 5 million people, and there is no clear picture or current data about the number of sex workers. Therefore, this study estimates that more sex workers live in Addis Ababa relatively and analyzed the impacts of COVID-19 on the livelihood and food security statuses of sex workers in two sub cities of Addis Ababa. Specifically, this study is conducted in Bole Sub-city and Akaki Kaliti Sub-city, where the majority of the sex workers of the city are thought to be found.

1.2. Problem statement

The first case of COVID-19 was reported on 13 March 2020 in Ethiopia. Since then, the Ethiopian government has taken several preventive measures, including shutting down schools, suspending sporting events and public gatherings, directed high-risk civil servants to work from home, social distancing (Nigatu et al., 2020). However, the situation is becoming unstoppable. Several cases have been reported daily (Mekonnen, 2020). As John Hopkins University report, until June 3, 2021 more than 272 thousand cases were reported in Ethiopia with a limited diagnosis capacity. The infection rate is increasing, and the death rate is rising. According to Lulit et al. (2020), the COVID-19 pandemic has spread to the Ethiopian economy through multiple international and domestic channels.

The ongoing critical suggestions to fight the pandemic (such as social/physical distancing, reduced travel, avoiding crowds, closures, and other protective practices) may adversely affect almost all the sectors (Messay, 2020). Other scholars like Kimani et al. (2020) discussed about the COVID-19 preventive majors affect the informal labor sector including sex work. Most often, people engaged in informal labor sectors (e.g., traders, sex workers, etc.) have low to zero savings, restricted access to finance and digital platforms, and live-in overcrowded slum areas. Even a few days of absence from work can lead to financial danger for households that need a day-to-day operation to earn income (Kelbesa, 2020). Kelbesa (2020) and Schwettmann (2020) discussed about the impacts of COVID-19 on the life of informal workers, those especially who are the most vulnerable to health and economic shocks during the lockdown. Moreover, Messay (2020) described that critical area of livelihoods and food security challenges along the COVID-19 pandemic tunnel is related to informal sector workers, including temporary jobs such as street vending, petty trade, lottery selling, shoe shinning, assisting taxi drivers, and other similar activities. Therefore, the COVID-19 pandemic may push several millions of informal sector practitioner Ethiopians into acute poverty and food insecurity if the country is lockdown owing to the pandemic (Messay, 2020).

As Kelbesa (2020) stated, informal sector workers are food insecure before corona and this pandemic and its lockdown measures highly exacerbated the level of poverty and food insecurity of those groups. According to Kimani et al. (2020), sex workers represent an important group that exemplifies the vulnerability of workers in the informal labor sector. Most sex workers run their

business at night and, therefore, face the stark realities of entertainment hotspots closures, strict curfew hours, cessation of movements, and promotion of physical distancing with fines and police violence for those who violate the new regulations all of which have been accompanied by a general financial downturn. According to Campbell et al. (2020), physical distancing measures to prevent the spread of coronavirus may affect the livelihood and safety of sex workers; many will have fewer clients, increasing the risk of homelessness and the need to accept riskier clients. The closing of bars and other hot spots may also cause sex workers to move from a more protected environment to street-based activities, and in settings with strict lockdown measures, they may be at increased risk of arrest.

Several researchers studied that most of the sex workers are doing this job to fulfill the basic needs of their beloved ones, such as to buy food for their children and famil, and to cover other living expenses (e.g., Ehitnesh, 2015; Overs, 2014; Regt and Mihret, 2020; Lerum and Brents, 2016; Kennedy et al., 2014; Sliml et al., 2020). Yet, there is no strong and clear information about the effects of COVID-19 lockdown on the food security status of sex workers. In this study, it is believed that sex workers are large group of informal sectors that feed themselves, their family and children who need their support as well. Hence, studying the impacts of COVID-19 lockdown measures on this group of people is crucial. It is also crucial to examine the extent of the effect of this pandemic on the living status of sex workers and how they survived during the lockdown. Therefore, this study examined the potential impacts of COVID-19 lockdown on the food security statuses of sex workers in Addis Ababa specifically in Bole and Akaki Kality sub-cities.

1.3. Research questions

- How do sex workers earn their daily income to fulfill the food security needs of their households during the COVID-19 lockdown period?

1.4. Objectives of the study

1.4.1. General objective

The general objective of this study was to explore COVID-19 lockdown measures on the food security statuses of sex workers in Bole and Akaki Kaliti sub city of Addis Ababa, Ethiopia.

1.4.2. Specific objectives

1. Describe the perceived effects of COVID-19 lockdown measures on the income and living status of sex workers.
2. Analyze the household food security status of sex workers during the lockdown.
3. Describe coping mechanisms employed by sex workers to fulfill food and other needs for themselves and their families during the pandemic.

1.5. Significance of the study

This study was focused on providing a clear picture or information on the impacts of COVID-19 on the food security status of sex workers, highly affected groups during covid-19 lockdown measures. The study also tried to understand the coping mechanisms adopted to fulfill food and other needs of sex workers for themselves and their families during the pandemic. The study provides insight to policy makers and other concerned bodies such as NGOs or governmental organizations working in the area of the study to design appropriate strategies to support such vulnerable groups during crises. Also, it gives good information for further scientific study and investigation at the institutional or government level.

1.6. Scope and limitation of the study

Despite the fact that the concern of the COVID-19 pandemic is one of the largest sudden phenomena all over the world, this study has limited spatial scope that tries to understand the impact of the pandemic. This study focuses on two sub-cities (Bole and Akai Kality sub-city) in Addis Ababa. The focus of this study was to explore COVID-19 on the food security status of sex workers and their families. Sex workers constitute one of the most affected groups of society, especially during lockdown measures. During this time most of their income source was closed so this research design helped to study the extent of this phenomena on the life of sex workers and their families. The household food security status of sex workers during the lockdown and the coping mechanisms employed by sex workers during the pandemic were examined in this study by surveying a sample of 90 sex workers, 2 focused group discussions, 6 in-depth interviews and 9 key informant interviews. This study was limited to identify the perceived effects of COVID-19 lockdown measures on the income and living status of sex workers in Bole and Akai Kality sub-city. I trust that the results of the study add new information in the study area of sex workers' food security statuses in relation to COVID-19 in Ethiopia.

Methodologically, this study used cross-sectional data gathered from sample sex workers as well as the variables included were focused on socioeconomic, demographic, and perceived effects of COVID-19 on income and living status, and coping mechanisms. Furthermore, the study was limited to applying HFIAS and FCS for food security analysis and coping strategy index; also, SPSS model 21 for quantitative data analysis. However, there were different limitations I faced while conducting this research. Some of the major limitations include time limitation of the research, difficulty in finding respondents and in the process of data collection limited number of literatures on the subject under discussion, budget limitation and increasing number of COVID-19 infection rate during the data collection period.

1.7. Ethical consideration

I took an official letter from Addis Ababa University, College of developmental study to collect my data and asked for information for my study. Likewise, I asked for the consent of the respondents with proper respect and I explained the purposes of this study, and their responses to the questions are valuable and held in utmost confidentiality to be used for the purposes of this research. In addition, I told respondents that they are free to refuse to respond to any question that feel uncomfortable to answer or withdraw from the research altogether. After that, I tried to collect all the necessary information from the respondents, analyzed and interpreted appropriately; also, I acknowledged properly my primary data sources and cited my secondary data sources. In addition, I only used my own works in this study and properly cited my secondary data properly according to AAU anti plagiarism policy.

1.8. Organization of the study

This thesis consists of five chapters. Chapter one presents the general introduction of the thesis that includes: background information of the study, statements of the problem, objectives and research questions of the study, significance of the study scope and limitation of the study, and ethical consideration. Chapter two is devoted to a review of related literature. Relevant theories, concepts, and empirical literature are reviewed and discussed. Chapter three includes description of the study area and research methodology. The fourth chapter deals with results and discussions. Finally, chapter five is devoted to the conclusion and recommendation of the study.

CHAPTER TWO: RELATED LITERATURE

2.1. Theoretical foundation

There are many different theories in different periods and based on different ideologies on sex work. The Feminist Theory (Wollstonecraft, 1791) is most relevant for this study because this theory discusses how women are susceptible to financial and associated problems. As they depend on men from different perspectives, because of structural imbalances in most societies in the world. The first perspective (Neo-abolitionist) shows that women are more vulnerable to economic related problems and leads them to sex work and other socially and morally unacceptable life options for survival. The other perspective (Pro-sex work) shows sex work to be a genuine income source. These two are called Neo-abolitionist and Pro-sex work perspectives, respectively (Gerassi, 2015).

Farley (2004), a *Neo-Abolitionist*, argues that participation in sex work willingly is a decision made by women in the absence of alternative life choices (lack of education, institutional poverty, etc.), and therefore decisions to voluntarily engage in sex work cannot accurately be described as a consensual. This model has two roots *Radical and Marxist feminism*. Radical feminism (Dobash and Dobash, 1979) is rooted in its understanding of social organization and structure as inherently patriarchal, as sexism exists to maintain male privilege and patriarchal social order. The patriarchal organization of both government and society has provided a social context for the widespread sexist acceptance of hierarchy, thereby excluding women from the public sector, higher education, structural labor forces, and religious institutions. This also contributed to a male-centered perspective, in which women had no place in holding highly respected jobs in the community and were consequently confined to the home. Argued from this model of oppression, the central tenet of sexual commerce rests in male domination and the structural inequalities between men and women. Sexual commerce provides a patriarchal right of access to women's bodies, thus perpetuating women's subordination to men (Loue, 2001; Dobash & Dobash, 1979; Farley, 2005; Gerassi, 2015).

Like radical feminism, Marxist feminism (MacKinnon, 1982) is another neo-abolitionist stance that generally views all forms of sexual commerce as a form of violence against women. Marxist feminism posits women's oppression on the economic dependence on men in a male-centric society

and argues that capitalism continues to be the overarching oppressor of women. As long as capitalism exists, women live in a patriarchal state and economically depend on men in a society structured around social class. In this model, economic exploitation includes many forms, primarily prostitution, and pornography, and therefore must be viewed as oppressions of sex and class. Women's sexuality and sexual energy is appropriated by the men who buy or control the sexual services exchange just as any worker's energy are appropriated to the capitalists for their profits, leading to alienation of one's bodily capacities and very bodily being. Marxist feminism specifically criticizes the use of pornography and other forms of voluntary and involuntary sexual exchanges for money. Catherine MacKinnon, a Marxist feminist legal scholar, argues that all forms of pornography, prostitution, and sex trafficking are abuses of sex and a form of power taken away from women (Gerassi, 2015; Miriam, 2005; Farley, 2005; Bryson, 1992; MacKinnon, 1982; MacKinnon, 1989).

The *pro-sex work perspective* (Ferguson et al., 1984), or sex passivism, split from previously derived feminist schools of thought to advocate for women's rights to an autonomous choice of sex work. Advocates of this perspective hold that sexuality, including paid forms, is consensual in many cases and that a woman should be free to make her own decision regarding the type of work in which she chooses to partake. Similarly, sex positivists argue that the woman should decide the notion of intimacy and what actions or sexual acts are considered intimate. For example, former sex worker, activist, and writer, Maggie McNeil, argues that there are many professions that may be described as intimate (i.e., nurses, gynecologists, child care professionals). Hence, all women, including sex workers and prostitutes, should be able to choose what is considered intimate and what is not (Ferguson et al., 1984; Kesler, 2002; Shah, 2004; Gerassi, 2015). On the other hand, some scholars (Nussbaum, 1998; McElroy, 2002) argue that sex workers as economic agents able to make meaningful choices, even under circumstances that influence or constrain their freedom. In this paradigm, sex work is viewed as a job that is not significantly different from other occupations involving interpersonal, emotional, and corporal skills. This implies opposing any form of moralism, and reclaiming women's right to use their body in any peaceful manner they choose; because the body is something one has, and selling sexual services is not selling the self, no more than in any other form of wage Labour, especially when the latter involves the management of emotions.

This thesis argues on some points of Neo-abolitionist perspectives of Radical & Marxist feminism theory but mostly desired to focus on the reason why women become sex workers especially in Ethiopia. For many women, the basic reason both for entering commercial sex and for staying in it is poverty and lack of a means to provide food for themselves and their families. This implies that the material impoverishment of many households got so grave and poverty so deeply entrenched, many teenage girls found themselves compelled to do something about it, even if this meant taking up commercial sex work and thus confronting another moral dilemma (Bethlehem, 2005).

2.2. Conceptual foundations of the study

2.2.2. Concepts of food security

Food security is a broad and flexible concept encompassing issues related to the nature, quality, access, causes, and coping strategies of food shortfalls (Messay, 2010; FAO, 2017). Over the last three decades, several definitions and conceptual frameworks have been developed for food security, and its relationship with nutrition. The definition of food security has changed since its introduction in the early 1940s. In the 1970s, the term was defined from the perspective of food supply to ensure that all people everywhere have enough food to eat; in the 1980s, the importance of consumption and access were put forward. In 1996, the World Food Summit proposed a new definition that is still in use: “*Food security, at the individual, household, national, regional and global levels, is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life*” (FAO, 1996). According to FAO (2017), this definition encompasses the four dimensions of food security – availability, access, stability, and utilization:

Food availability: which relates to the supply of food and a country’s ability to provide enough nutritious food to meet the needs/demands of the population, and is determined by the level of food production or imports, stock levels, and access to markets;

Access to food: which includes social, physical, and economic resources to obtain food;

Food stability: which means that access cannot be compromised by fluctuations due to weather conditions or market prices, due to seasonal, economic, or political shocks;

Food utilization: which refers to the way the body makes the most of various nutrients in the food. Knowledge, good childcare and hygiene practices, diversity of the diet and adequate intra-household distribution of food all influence the levels of energy and nutrient intake by individuals (FAO, 2017).

Likewise, according to FAO, 1996 definition of food insecurity “*A situation that exists when people do not have secure access to sufficient amount of healthy and nutritious food for normal growth and development and an active and healthy life.*” Any analysis of food security examines whether a change from security to insecurity or insecurity to security actually takes place and also the probability of such a change happening. Factors that may lead to a situation of food insecurity include non-availability of food, lack of access, improper utilization, and instability over a certain time period (Napoli, 2011).

2.2.2. Concepts of coping strategies

There are two basic types of coping strategies. One includes the immediate and short-term alteration of consumption patterns. The other includes the longer-term alteration of income-earning or food production patterns and one-off responses such as asset sales. While it is important to understand longer-term livelihood strategies in an emergency, research has shown that the management of short-term consumption strategies is an accurate indicator of acute food security. However, people do not wait until an outright shortfall of food is upon them before they begin to change their behaviors. Thus, changes in coping behavior not only reflect the current status, but they also reflect the best judgment of household decision-makers about the foreseeable future-giving the measurement of coping behaviors some predictive ability too (Maxwell and Caldwell, 2008).

According to Maxwell and Caldwell (2008), the CSI was originally developed to capture the nature of the behavioral response to food insecurity in a given context. The individual behaviors identified and enumerated are likely to be specific to that context, and both the behaviors themselves, and the relative severity of individual behaviors, vary significantly from location to location, and from culture to culture. Because the CSI was developed as a context specific indicator however, there has always been a caveat that findings were probably only locally applicable as well, and it has been criticized for being relatively unhelpful in comparative analysis. Experience with the CSI has shown that, typically, food insecure households employ four types of consumption coping

strategies. First, households may change their diet. For instance, households might switch food consumption from preferred foods to cheaper, less preferred substitutes. Second, the household can attempt to increase their food supplies using short-term strategies that are not sustainable over a long period. Typical examples include borrowing or purchasing on credit. More extreme examples are begging or consuming wild foods, immature crops, or even seed stocks. Third, if the available food is still inadequate to meet needs, households can try to reduce the number of people that they have to feed by sending some of them elsewhere (for example, sending the kids to the neighbor's house when those neighbors are eating). Fourth, and most common, households can attempt to manage the shortfall by rationing the food available to the household (cutting portion size or the number of meals, favoring certain household members over others, or skipping whole days without eating). It will be clear that all these types of behavior indicate a problem of household food insecurity, but not necessarily problems of the same severity. A household where no one eats for an entire day is clearly more food insecure than one where people have simply switched from consuming rice to cassava. The basic idea is to measure the frequency of these coping behaviors (how often is the coping strategy used?) and the severity of the strategies (what degree of food insecurity do they suggest?). Information on the frequency and severity is then combined in a single score, the Coping Strategies Index, which is an indicator of the household's food security status. It considers only the coping strategies that are important in a particular local context.

2.2.3. Definitions about COVID-19

The Coronavirus (Covid-19) pandemic is a global health crisis caused by a newly discovered virus. Covid-19 is far more than an infectious disease; it is affecting the socioeconomic and food security regime, worldwide. The United Nation's Framework for the Immediate Socioeconomic response reported that the virus would most likely increase poverty, food insecurity, and inequalities on a global scale (Elsahoryi et al., 2020).

However, features of COVID-19 mean that standard communicable disease (CD) control measures may often be insufficient to bring a COVID-19 outbreak under control. While case detection, contact tracing, physical distancing, hand hygiene, masks, and selective isolation, and quarantine may reduce transmission, many countries have resorted to so-called 'lockdown' measures. This

amounts to varying degrees of restriction on movement and gatherings of citizens to reduce transmission risks and to reduce the reproductive rate of an epidemic (Mboera et al., 2020).

The government of Ethiopia took several measures to reduce the impacts of the pandemic. These include shutting down schools, suspending sporting events and public gatherings, suspending flights to several countries affected by the Coronavirus, and introducing mandatory self-quarantine for 14 days for those entering the country (Geda et al., 2020). However, indirect ones associated with the impacts of lockdown on society, which include economic recession, reduced access to food and other basic needs, the aggravation of social tensions, disruption to education, and the erosion of civil liberties, aggravate direct injuries. Measures to mitigate these unwanted effects of lockdown may include enabling children to continue their schooling online, providing welfare support to poorer households that have lost income, and introducing fiscal measures to keep the economy going and ensure essential healthcare (Mboera et al., 2020).

2.2.4. Definition and types of sex work

Sex work is the provision of sexual services for money or goods. Sexual services involve all kinds of sexual exchanges, for example, sexual fantasies, sexual products, and or sexual contact (Brents & Hausbeck, 2005). It always involves a sex worker and a client and it also frequently involves a third party. Sex workers are people who receive money or goods in exchange for sexual services, and who consciously define those activities as income generating even if they do not consider sex work as their occupation (Overs, 2002). This implies that all sex workers are not doing this job for survival or to buy food; some women do it as an additional income for a better life or adding assets to what they already have, as Ehitnesh (2015) demonstrates. In this paper, we discuss and use the name sex worker for those practicing it for the sake of survival.

Commercial sex workers have been known in Ethiopia since olden times, although there are no data as to when and where commercial sex first appeared in the country. Some sources associate the beginnings of commercial sex with the movement of kings, nobles, and warlords, the establishment of cities, and the development of trading (Andargachew 1988). According to Pankhurst (1974) traditional Ethiopian economy throughout most of the country was basically one of subsistence with an almost complete absence of money, a minimal division of labor, and domestic slavery rather than wage labor. Under such circumstances, there was little scope for prostitution, an institution that is even today widely regarded as alien to the traditional Ethiopian

way of life. There are, however, indications that an institution related to sex work existed at royal camps of the Middle Ages, at the seventeenth-century city of Gondär, as well as later at commercial centers on the periphery of the empire, while the subsequent development of Addis Ababa and other late nineteenth or early twentieth century towns witnessed the emergence, as might be expected, of modern - type sex work.

Subsequently, towns and government offices became centers for the migration of people, particularly females from rural areas. Initially, the migrant females lived in *tella* or *araki* houses where they helped the owners to prepare local beverages (*tella* or *araki*), worked as waiters, and/or entertained the customers; eventually, many of them became commercial sex workers (FHI and AACAHB, 2020). Likewise, Bethlehem discussed about internal differentiation and the seven types of sex workers in Addis Ababa based on their venues (the first four categories) and conditions (three categories). The first category is work in the streets(asphalt) secondly work in small drinking places (*metet-bet*). work out of bars in small hotels (*buna-bet*) is the third and work out of big hotels and/or nightclubs is the fourth. The three types named after conditions of work are literally work on one's bed, i.e., in one's home (*be-alga*), work on the basis of 50% share with the owner of the house (*iqul-akafay*) and work in which a fixed amount of money is handed over to the owner of the house per session (*yetewosene-akafay*) (Bethlehem, 2017).

Nevertheless, there are different factors determining women to engage in the sex industry. Some scholars (For instance, Regt and Mihret, 2020; Lerum and Brents; 2016; Kennedy et al., 2014; Slim et al., 2020; Ehitnesh, 2015; Overs, 2014; Shah, 2003) indicated that factors including migration, poverty, women trafficking, unplanned pregnancy for single mothers, lack of source of income, lack of job experience, divorced family, sexual abuse, addiction, and living with an extended family leads women to the sex industry.

2.3. Empirical literature reviews

2.3.1. COVID-19 and food security

According to Bene (2020), the impact of COVID-19 on the lives of the billions of people who are affected by the pandemic is not limited to the direct threat that the virus imposes on their health. It extends to their food security through the disruptions that it is having on local and national food

systems and economies. In sum, it sheds light on the central question of the resilience of food systems and its link to people's food and nutrition security.

A cross-sectional study from Jordan shows that Covid-19 and its subsequent quarantine have a tangible impact on population food security level (Elsahoryi et al., 2020). Their results showed that 23.1 % of the total participants were severely food insecure, while 36.1 % were moderate food insecure during the pandemic. Similarly, Pereira and Oliveira (2020) show that the COVID-19 pandemic is likely to result in even more food shortages in the world, affecting mostly developing countries. All of this is further exacerbated by recurring phenomena such as floods and droughts and by the practice of a cruel market logic, where there is an incentive to raise food prices. Food insecurity and poverty may increase dramatically in socially vulnerable populations with the expansion of the COVID-19 pandemic because it has affected income in many countries. Increased poverty and Food Insecurity are expected due to the complexity of generating income in more vulnerable segments of the population, such as among informal workers, as well as the dismissal of employees from work.

Hirvonen (2020) studied about economic impacts of the COVID-19 crisis in Ethiopia by administered phone surveys and it shows that: First, while the phone survey evidence indicates that many households have experienced income losses, a major limitation was no idea about the magnitude of the reported income losses. Also, the long-term impacts of the COVID-19 pandemic remain unclear and are likely to be a sum of several factors. School closures, limited access to health care, and impacts of the crisis on mental health and domestic violence are factors that will have long-lasting negative consequences that are difficult to repair later on. Therefore, the duration of this health hazard in Ethiopia will largely determine the scale of the crisis.

Moreover, Schwettmann (2020) in his analysis explained COVID-19 and its impact on informal sectors in sub-Saharan Africa. His study showed that the COVID-19 pandemic affects all African countries and populations, but it will have the most negative impact on informal economy workers and enterprises in urban areas. because the study further concluded that lockdowns, workplace closures, travel bans and social distancing measures sharply reduce the economic opportunities for informal economy actors who rely to a large extent on personal contact with customers. In-country travel bans affect rural producers who can no longer access urban markets. Border closures have had a devastating impact on informal cross-border traders operating in all African countries.

According to Kimani et al. (2020), in their commentary capture on COVID-19 lockdown measures and its challenge in Kenya shows that the COVID-19 pandemic and its attendant responses, has led to massive health, social, and economic challenges on a global scale. So far, having a relatively low burden of COVID-19 infection, it is the response in lower and middle-income countries that has had particularly dire consequences for impoverished populations such as sex workers, many of whom rely on regular income in the informal economic sector to survive. This commentary captures the challenges in Kenya posed by daily curfews and lost economic income, coupled with further changes to sex work that increase potential exposure to infection, stigmatization, violence, and various health concerns. It also highlights the ways in which communities and programs have demonstrated resourcefulness in responding to this unprecedented disruption in order to emerge healthy when COVID-19, and the measures to contain it, subsides.

NSWP (2014) shows on its regional study report about economic empowerment programs for sex workers in Africa: Sex workers continue to face multiple risks including social marginalization, violence, and poor health. These overlapping and mutually reinforcing factors have been shown to restrict sex workers' ability to improve their living and working conditions and to achieve economic security. Furthermore, sex workers like other people working in informal economies commonly report a lack of access to bank accounts, saving schemes, loans and legal forms of credit, insurance, pensions, and basic other employment benefits. To solve those problems related to economic and accesses some programs that aim to empower sex workers to fail to do so: this is particularly common in the case of programs whose primary aim is to rehabilitate sex workers. Actions aimed at 'rehabilitation' through training and steering sex workers toward alternative employment or income-generation often incorrectly assume that sex workers want to be rehabilitated or want or are able to leave sex work immediately. In many countries, rather than encouraging sex workers to build upon their own agency, programs instead offer income-generating activities and/or training is to rehabilitate sex workers. This is to encourage or pressure sex workers to stop sex work by providing them with increased employment options and reduced risk and vulnerability.

Bethlehem (2005) discussed the social context of sex work in Addis Ababa and she showed how they struggle with poverty, food insecurity, and social moral state: Listening to sex workers as they tell the story of why and how they started work and why they are still working, one cannot fail to

notice a deeply moral element. That moral element is the commitment of the women to the well-being of their kin, particularly to members of their immediate family. For many women, the basic reason both for entering commercial sex and for staying in it is to provide for loved ones who stand in critical need of material support. The material impoverishment of many households got so grave and poverty so deeply entrenched, many teenage girls found themselves compelled to do something about it, even if this meant taking up commercial sex work and thus confronting another moral dilemma.

According to Campbell et al. (2020), on their media analysis in different African country COVID-19 and its lockdown measures shows that, with the corona virus passing easily from human to human, with in person sex work requiring close contact, social distancing is difficult to implement and hence sex workers (and their customers) fears about transmission was one of the factors leading to a shrinkage in customer numbers. Further reduced by the introduction of government Covid-19 measures in countries across the globe such as lockdown with the closure of none essential businesses, stay at home orders, social distancing requirements, restrictions on movement and curfews leading to the closure of sex work venues and making it very difficult for sex workers to make contact with customers without breaking Covid-19 regulations. Also, Campbell et al. (2020), shows that; physical distancing measures to prevent the spread of coronavirus may affect the livelihood and safety of sex workers; many will have fewer clients, increasing the risk of homelessness and the need to accept riskier clients. The closing of bars and other hot spots may also cause sex workers to move from a more protected environment to street-based activities, and in settings with strict lockdown measures, they may be at increased risk of arrest.

According to Messay (2020), Ethiopia faces high levels of food insecurity, ranking as one of the hungriest countries in the world, with millions of people needing food assistance. The livelihood of most Ethiopians depends on agriculture, the most significant contributor to GDP and economic growth. An adverse incident in weather conditions, farmers' health, and status of pests profoundly impact the agricultural outputs as Ethiopian agriculture is incredibly sensitive to the shifts in these conditions. The current COVID- 19 pandemic, therefore, may severely impact agriculture and, in fact, most other economic sectors in Ethiopia. The ongoing critical suggestions to fight the pandemic (such as social/physical distancing, reduced travel, avoiding crowds, closures, and other protective practices) may adversely affect almost all the sectors.

The UN (2020) assessment about the impacts of COVID-19 in Ethiopia, shows several influences of COVID-19 in addition to economic and health effects such as social stresses and gender-based assault: Compounding the existing food insecurity and malnutrition situation that is already impacting more than 8 million people across the country, deterioration in the quality of diets and food consumption due to loss of income, rising inflation, and lack of access to diversified nutritious diets. The concentration of vulnerabilities among specific groups that are particularly exposed to a wide variety of risks, including abuse and exploitation, in conditions of economic uncertainty and loss of livelihoods as well as means of social support. These include women working in the informal sector, children living and working on the street, children in orphanages and remand homes, persons with disabilities, older persons everywhere, internally displaced persons, returnees, those who relocated, and refugees. Also, women are at the center of any disease outbreak - and outbreaks affect women and men differently. Health emergencies disproportionately affect women and girls in several ways including access to health care services, livelihood, food security, and protection. Pandemics, including COVID-19, compound existing gender inequalities and vulnerabilities increasing risks of abuse and regression in development gains for women and girls. In times of crisis such as an outbreak, women and girls may be at higher risk, for example, of intimate partner violence and other forms of domestic violence due to heightened tensions in the household. They also face on increased risk of other forms of gender-based violence including sexual exploitation and abuse. Women and girls are also at the front lines as health care workers, cleaners, and also tend to be caregivers for those who are sick, increasing their burdens and risk of infection.

2.4. Conceptual framework

Figure 2.1 presents the conceptual framework of the study. The widespread outbreak of this virus poses an unprecedented challenge globally. It has not only created a public health crisis but also an economic crisis as countries across the world have adopted containment policies, in particular physical distancing measures, to reduce COVID-19 transmissions (Kapoor, 2020). The COVID-19 pandemic affects all African countries and populations, but it will have the most negative impact on informal economy workers and enterprises in urban areas. This is because: lockdowns, workplace closures, travel bans and social distancing measures sharply reduce the economic

opportunities for informal economy actors who rely to a large extent on personal contact with customers (Schwettmann, 2020). Sex workers are one group of informal economy workers.

According to Kimani et al. (2020), the effect of lockdowns effect on sex workers and, other daily wage earners, have suffered major losses in income. Moreover, alternative sources of income such as hairdressing in salons, working in massage parlors, and serving in nightclubs and restaurants have dried up amid government shutdowns of non-essential businesses. Many female sex workers are young single parents with children to feed; they are now living under particularly dire economic circumstances. Similarly, these incidents affect sex workers' food security status and lead them to temporal food insecurity because when their income decreases or dries, they can't properly access food (Kimani et al., 2020). It also highly affects their household food consumption and utilization. More ever most sex workers tried to use both food consumption-related coping strategies and livelihood-related coping strategies as a coping mechanism for survival during the lockdown.

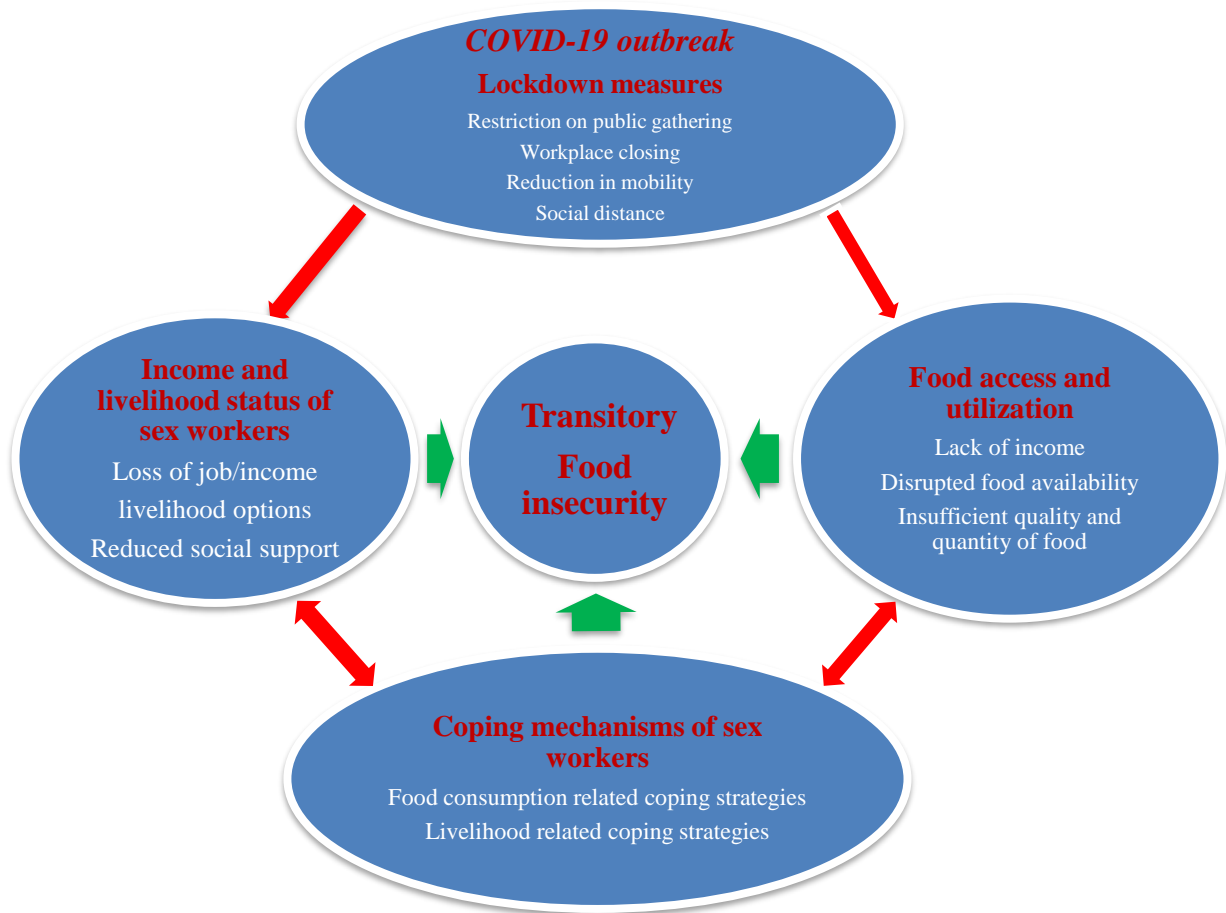


Figure 2. 1. Conceptual framework of the study

Source: Literature reviews and experience

CHAPTER THREE: DESCRIPTION OF THE STUDY AREA AND RESEARCH METHODS

3.1. Description of the study area

The study is conducted in Addis Ababa, the capital city of Ethiopia (Figure 3.1). According to World Population Review (2021) Addis Ababa is the capital and the largest city of Ethiopia. It is located on a well-watered plateau surrounded by hills and mountains, in the geographic center of the country at 9°1'48"N 38°44'24"E. Addis Ababa is the largest city in the country; the total population is now estimated at **5,005,524** in 2021. This capital city holds 527 square kilometers of area in Ethiopia. The population density is estimated to be near 5,165 individuals per square kilometer available (world population review, 2021). Addis Ababa has 11 sub-cities namely Arada, Addis Ketema, Yeka, Kirkos, Lideta, Kolfe, Akaki Kaliti, Nifas Silk Lafto, Lemi Kura, Gulele, and Bole. Under each sub-city, there are woredas and ketenas, which are the lowest units of administration. This study is undertaken in two sub-cities Bole and Akaki Kaliti.

In Akaki Kaliti sub-city, there are 13 woredas, and woreda 06 was where most sex workers found, and that is why it was selected for this study. The number of females who live in this woreda are 20,436 which accounts for 62% of the total population whereas the number of males who live in this woreda are 17,306 which accounts for 38% of the total population (Woreda's Health office report, 2020). Totally 37,742 people live in this particular woreda and also the number of females aged from (15-49) are 12,798, children under the age of 1 year are 828, children under age 5 are 2645 and number of pregnant women are 861. There are many Hotels and public Bars in this particular woreda where many sex workers live, especially in a neighborhood called Adey Ababa.

The other study site is in the Bole sub-city. As the physical and socioeconomic situation of Bole 2014 shows, its population was estimated to be composed of 328,900 (Male 161,480 and Female 185,004) and its total area 122.08 km² (47.14 sq mi). In terms of area coverage, Bole is the largest sub-city in Addis Ababa followed by Akaki- Kaliti and Yeka. There are 14 woredas, from those woredas, woreda 04 was where most sex workers found and it was another study area. Its population in 2014 was estimated to be 29839 (Male 13737 and Female 16102) and its total area was 193.96 ha. According to the woreda's administration report, there are lots of hotels and public Bars in this particular woreda and many sex workers live on it specially a place called Chechnya.

Area of the Study

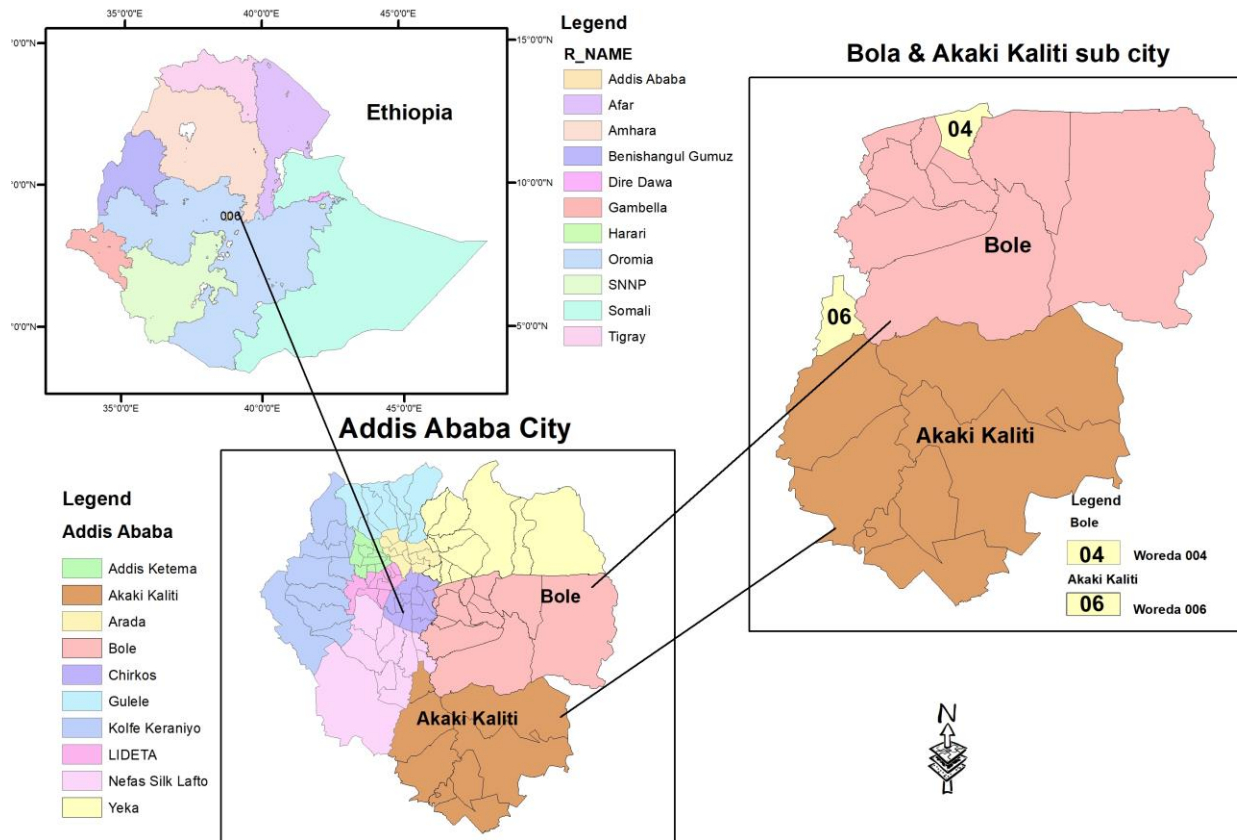


Figure 3. 1. Map of the study area and Ethiopia

Source: Own construction

3.2. Research method

3.2.1. Research design and approach

This research employed a cross-sectional mixed research design. According to Bethlehem (1999), cross-sectional research is a research approach in which the researchers investigate the state of affairs in a population at a certain point in time. Instead of using a census or a complete enumeration to get information in the target population, in practice, the researchers collect data on only a small part of the population to get information about the sampled elements of the population as a whole (Zheng, 2015).

Moreover, this research employed Mixed methods research as an approach because both qualitative (open-ended data) and quantitative (closed-ended data) information related to the way

of life, challenges, and experience of the sex workers and organization work on those social groups were collected and analyzed. According to Creswell and Clark (2011), mixed methods research is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the integration of qualitative and quantitative data yields additional insight beyond the information provided either by quantitative or qualitative data alone.

3.2.2. Data types and sources

In this study, both qualitative and quantitative data are employed. Quantitative data is information about quantities, and therefore numbers; while qualitative data is descriptive, and regards phenomenon which can be observed but not measured. Also, both primary and secondary data sources were collected for the purpose of this study. Primary data refers to the first-hand data gathered by the researcher for the first time. It is factual and original, collected for addressing the problem at hand, and is considered real-time data (Ajayi, 2017). This study used firsthand information from sex workers, hotel managers, government officers, and some NGOs working on sex workers by using survey questionnaires, focused group discussion, key informant interviews, observation and in-depth interviews. On the other hand, secondary sources mean data collected by someone else earlier. Secondary data are the data collected by a party not related to the research study but collected these data for some other purpose and at a different time in the past. Sources of secondary data are government publications websites, books, journal articles, internal records (Ajayi, 2017). This study used secondhand information from government and nongovernmental organizations reports work on sex workers, websites, books, and journal articles.

3.2.3. Sample size determination and sampling techniques

This study employed purposive sampling techniques to collect necessary information from the study area. Hence, the study areas (Akaki Kality sub city wereda 06 and Bole sub city wereda 04) are selected purposively based on the numbers of sex workers found in these areas, as well as access to data. Also, there was a lack of up-to-date statistical data about the number of sex workers in Addis Ababa and it was more important to find a woman who was willing and able to share their narratives. Purposeful sampling is a technique widely used in research for the identification and selection of information-rich cases for the most effective use of limited resources. This

involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with this phenomenon. In addition to knowledge and experience availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner are important (Patton, 2002; Cresswell & Clark, 2011; Bernard, 2002; Spradley, 1979). According to Singh and Masuku (2014) in the purposive sampling technique, sampling units are selected according to the purpose. However, in addition, this technique can be used only for some specific purposes. Moreover, this study used snowball sampling technique to select the study participants because this paper focuses on sex workers, and in our community sex work is insult, shabby, or sin so no one says am a sex worker, and they may not willing to share their life experience and the challenges encountered. Hence, this is the most difficult thing to collect data, but with the snowball sampling technique, it was possible. According to Kumar (2011), snowball sampling is the process of selecting a sample using networks. To start with, a few individuals in a group or organization are selected and the required information is collected from them. They are then asked to identify other people in the group or organization, and the people selected by them become a part of the sample. Information is collected from them, and then these people are asked to identify other members of the group, and in turn, those identified become the basis of further sampling. So, in this study, 90 samples (45 samples from Akaki Kaliti sub-city and 45 from Bole sub-city) were selected.

3.2.4. Tools of data collection

Survey questionnaire:

This study conducted survey questionnaires with 90 sex workers. This survey is conducted through face-to-face communication and by the researcher asking these women questions from the questionnaire. During the surveys, the pandemic's infection rate was increasing so I tried to follow COVID-19 protocols like wearing facemasks, keeping physical distance, and avoiding physical contact. With this tool different kinds of information were collected like data on sex workers age, educational status, diversity of income-generating activity, ranges of daily income, family size, reason why being sex worker, household food availability during the pandemic, income expenditure, drug history, callings during the pandemic, coping mechanisms during COVID-19 and related information were collected. According to Ponto (2015) survey involves the collection of information from a sample of individuals through their responses to questions; and a

questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents.

Observations:

This study used observation as a tool to collect additional information about the study area. During observation different kinds of information were collected. Some of them included sex workers' way of life, living standards, the number of people who live in a house, expenditure, addiction, behavior of sex workers, and the social systems they occupy. However, most sex workers did not allow to taking their pictures and houses. Therefore, the information collected involves observation and thus was not substantiated by pictorial evidence. According to Walshe et al. (2011) observation is useful for understanding what people do, their roles, actions, and behavior, and how these can alter in response to situations and over time. Observations may be used to triangulate data, that is, to verify the findings derived from one source of data with those from another source or another method of collecting data.

Key informant interviews:

This study also used key informant interviews (9 respondents) with government program officers (from woreda Administration office, Social and Labor Office, Women and Child Affair, and Health Office), hotel managers, and non-governmental organizations working on sex workers. These key informant interviews were also asked questions relating to the Coronavirus pandemic and its impacts on livelihood and food security statuses of sex workers, and measures taken during the pandemic to support sex workers and their families. They were also asked about possible recommendations about stakeholder's engagement to protect sex workers from food insecurity. According to Kumar (1989), key informant interviews are qualitative, in-depth interviews of people selected for their first-hand knowledge about a topic of interest. The interviews are loosely structured, relying on a list of issues to be discussed.

Focused group discussion:

Again, this study held one focus group discussion in each study area; with eight discussants in Akaki Kaliti sub-city and seven discussants in Bole sub-city. The discussants were selected based on their work experience in this job and interest to discuss this topic. In both groups, all the discussants discussed a COVID-19 lockdown measure impacts on livelihood and food security

statuses of sex workers, and any practices during the pandemic to support sex workers and their families. In addition, some possible recommendations, which help sex workers, become resilient from such pandemics and other problems, and responsible and potential stakeholders. According to Kumar (1987), a focus group interview is an inexpensive, rapid appraisal technique that can provide managers with a wealth of qualitative information on the performance of development activities, services, and products, or other issues and also, used to produce qualitative perceptions or produce direct quotes that can represent the sights of the group concerned.

In-depth interview:

In-depth interviews with 6 sex workers were conducted in both study areas. The interviewees were selected based on their interest to share their life and experience before and during the COVID-19. During in-depth interview different kinds of information was collected about sex workers' way of life, life challenges, and coping mechanisms used during the lockdown. According to Boyce and Neale (2006), we use In-depth interviewing in a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program, or situation. Also, In-depth interviews are useful when we want detailed information about a person's thoughts and behaviors or want to explore new issues in depth. Interviews are often used to provide context to other data (such as outcome data), offering a more complete picture of what happened in the program and why.

3.2.5. Techniques of data analysis

In this study, both quantitative and qualitative data analysis techniques were used to analyze the data. Quantitative data generated through questionnaires were systematically analyzed by applying statistical software. Qualitative data generated through in-depth interviews, focused group discussion, key informant interview, observation and questionnaire were collected and analyzed by using HFIAS, FCS, and CSI.

3.2.5.1. Descriptive analysis

Quantitative data generated through questionnaires were collected, edited, and coded and entered in to the statistical software SPSS version 21 to aid the user in presenting and describing and analyzing data, and checking correlations between variables. Also, discussed the relation between

the independent variable and dependent variables based on the result analyses, and correlated those two variables (dependent variable and independent variable).

3.2.5.2. Food security analysis

This study used three food security analyses techniques (Household Food Insecurity Access Scale, Food consumption score, and Coping Strategies Index) to analyze the food security status of study households.

Household Food Insecurity Access Scale (HFIAS)

According to Coates et al. (2007), HFIAS is based on the idea that the experience of food insecurity (access) causes predictable reactions and responses that can be captured and quantified through a survey and summarized in a scale. The HFIAS consists of two types of related questions. The first question type is called an occurrence question, which asks whether a specific condition associated with the experience of food insecurity ever occurred during the previous four weeks (30 days). Each occurrence question consists of the stem (timeframe for recall), the body of the question (refers to a specific behavior or attitude), and two response options (0 = no, 1 = yes). The second question type is called a frequency-of-occurrence question, which asks how often a reported condition occurred during the previous four weeks. Each frequency-of-occurrence question asks the respondent how often the condition reported in the previous occurrence-question happened in the previous four weeks. There are three response options representing a range of frequencies (1 = rarely, 2 = sometimes, 3 = often) (See Annex 1)

Moreover, the HFIAS module yields information on food insecurity (access) at the household level. Four types of indicators can be calculated to help understand the characteristics of and changes in household food insecurity (access) in the surveyed population. These indicators provide summary information on:

- ✓ Household Food Insecurity Access-related **Conditions**
- ✓ Household Food Insecurity Access-related **Domains**
- ✓ Household Food Insecurity Access Scale **Score**
- ✓ Household Food Insecurity Access **Prevalence**

According to Coates et al. (2007), HFIAS categorized the households into four (food secured, mildly food insecure, moderately food insecure, and severely food insecure). A food secure

household experiences none of the food insecurity (access) conditions, or just experiences worry, but rarely. A mildly food insecure (access) household worries about not having enough food sometimes or often, and/or is unable to eat preferred foods, and/or eats a more monotonous diet than desired and/or some foods considered undesirable, but only rarely. However, it does not cut back on quantity nor experience any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating). A moderately food insecure household sacrifices quality more frequently, by eating a monotonous diet or undesirable foods sometimes or often, and/or has started to cut back on quantity by reducing the size of meals or number of meals, rarely or sometimes. But it does not experience any of the three most severe conditions. A severely food insecure household has graduated to cutting back on meal size or number of meals often, and/or experiences any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating), even as infrequently as rarely. In other words, any household that experiences one of these three conditions even once in the last four weeks (30 days) is considered severely food insecure.

Food Consumption Score (FCS)

According to WFP (2008), the Food Consumption Score (FCS) or the frequency weighted diet diversity score is a score calculated using the frequency of consumption of different food groups consumed by a household during the 7 days before the survey. The food items/groups listed in the questionnaire can be categorized into 9 main food groups: cereals, starchy tubers and roots; legumes and nuts; meat, fish, poultry and eggs; vegetables (including green leaves); fruit, oils and fats; milk and dairy products; and sugar/ sweets (See Annex). According to practical data collection experience (WFP and others), 7-day seems to be the most appropriate recall period to capture information about households. Habitual diet taking into account the limits given by possible seasonal consumption. A recall period longer than 7 days has proved to be problematic, as difficulties in remembering what was prepared appear to increase. The dietary diversity & food frequency approach aims to estimate whether the household manages to access items from the basic food groups in their habitual diet. Number of days of consumption out of the reference for the last 7 days (week) is intended to track potential regularities in consumption habit. The guiding principle for determining the weights is the nutrient density of the food groups. The highest weight was attached to food items with relatively high energy, good quality protein and a wide range of micronutrients that can be easily absorbed. An additional benefit of the weights is that the score is

'stretched', allowing for a more truly continuous score, which gives greater flexibility in analysis. The unweight score would have a possible range of 0 to 56. The weighted score has a range of 0 to 112 (See Annex 2).

According to WFP (2008) the frequency weighted diet diversity score or "Food consumption score" is a score calculated using the frequency of consumption of different food groups consumed by a household during the 7 days before the survey. The first group all the food items into specific food groups. Then sum all the consumption frequencies of food items of the same group, and recode the value of each group above 7 as 7. After that, multiply the value obtained for each food group by its weight and create new weighted food group scores. Finally sum the weighed food group scores, thus creating the food consumption score (FCS), and using the appropriate thresholds recode the variable food consumption score, from a continuous variable to a categorical variable. Two standard scores (21 and 35) have been identified; which means below 21 score households are poor food consumption, between 21 and 35 score households are having borderline food consumption and above 35 score households are having acceptable food consumption.

A commonly encountered complication is found in populations where consumption of sugar and/or oil is frequent among nearly all households surveyed, even when the consumption of other food groups is rare and the food score is otherwise low. Although both oil and sugar are weighted 0.5, combined this has the effect of giving all households a base FC of 7. If this base diet of oil and sugar is combined only with frequent (7 days) consumption of starch base, the score already arrives at 21. However, this clearly cannot be classified as even a borderline diet. To deal with this if the population is found to homogeneously consume oil and sugar nearly daily, the thresholds for the three consumption groups can be raised from 21 and 35 to 28 and 42 (by adding 7 to each threshold, this accounts for the daily consumption of oil and sugar which gives 7 points to the FCS) (WFP, 2008). So, this research used 28 and 42 as cutoff point because most of the study households use oil and sugar nearly daily.

Table 3. 1. Study cutoff point for food consumption score

FCS	Profiles
0-28	Poor
28.5-42	Borderline
> 42	Acceptable

Source: WFP, (2008)

Coping Strategies Index (CSI)

According to Maxwell and Caldwell (2008), The Coping Strategies Index (CSI) is an indicator of household food security that is relatively simple and quick to use, straightforward to understand, and correlates well with more complex measures of food security. A series of questions about how households manage to cope with a shortfall in food for consumption results in a simple numeric score (See Annex 3). In its simplest form, monitoring changes in the CSI score indicates whether household food security status is declining or improving.

Experience with the CSI and other food consumption recall questionnaires indicates that about a week is the longest time that people remember their behaviors accurately, hence questions here are on the basis of a seven-day recall period. Taking the list of individual behaviors developed, the main question on table 4 becomes how often, in the past seven days, and a household had to rely on each individual coping behavior (Maxwell and Caldwell, 2008).

CHAPTER FOUR: FINDING, ANALYSIS AND DISCUSSION

This chapter presents the main results and discussions of the study. It has five sub-sections. The first sub-section describes the demographic and socioeconomic characteristics of sample respondents with respect to identified explanatory variables. The second subsection presents the perceived effects of COVID-19 on the life of sex workers. The third subsection discusses food security status of study household measured using HFIAS and FCS. The fourth subsection presents determinants of household food security status. The final sub-section presents the result of coping strategy index (CSI).

4.1. Demographic and socioeconomic characteristics

4.1.1. Demographic characteristics

All respondents of this study are above 18 years old, and the age distribution of all sample sex workers were between 19 and 38 years old. Average age of the respondents is 27, and thus most of the respondents are young. On the other hand, 94.5% of the respondents have family under their support and 74.4% of them have children (Table 4.1). Number of family members of the respondents are from one to ten, and in average, they have four family members. Only 5.5% of the sex workers have no family under their support. Also, 25.5% of the them have no children. During in-depth interviews and FGDs, the study finding shows most of the sex workers have the burden of taking care of family members alone.

Table 4. 1. Age, family size and children of sample sex workers

Discrete variables (N=90)		Number of respondents (%)		Continues variables (N=90)	Number of respondents	Mean	Std. Deviation
				Age of the respondents	90	26.9	5.142
Have family	Yes	85	94.4	Family size	85	4.1	1.991
	No	5	5.6				
Have children	Yes	67	74.4	Number of children	67	1.53	0.943
	No	23	25.6				

Source: Survey (2021)

Marital status of sample sex workers shows 48.9% of them were single, 3.3% of them were married, 45.6% of them were divorced and 2.2% of them were widowed. This shows 96.7% of the respondents have no partners, and they have responsibility to fulfill their family obligations by themselves (Figure 4.1.).

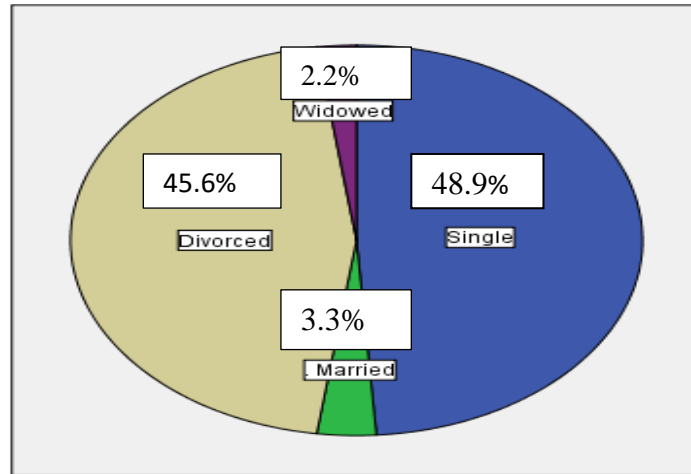


Figure 4. 1. Marital statuses of sample sex workers

Source: Survey (2021)

Educational statuses of the respondents indicate 11.1% of them cannot read and write, 13.3% of them were from grade 1 to 4, 50% were from grade 5 to 8, 22.2% were from grade 9 to 12 and 3.3% have diploma and above. This result shows 94.4% of them have not completed their secondary school education and 74.4% of them have not completed their primary school education (Table 4.2). The research finding during FGDs and in-depth interviews indicates low educational status is one of the causes why these women become sex workers.

Table 4. 2. Educational statuses of sample sex workers

Demographical characteristics		Number of respondents	percent
Educational level	Not read and write	10	11.1
	Grade 1 – 4	12	13.3
	Grade 5 – 8	45	50.0

	Grade 9 – 12	20	22.2
	Diploma and above	3	3.3

Source: Survey (2021)

4.1.2. Socioeconomic characteristics

The estimated daily incomes of the respondents are shown in Table 4.3. The minimum daily income of sample sex workers was 150 birr, the maximum was 700 birr, and the average income was 281 birr. This figure shows the daily income of sample respondents before the COVID-19 lockdown order and after lockdown. But during lockdown their income were nearly zero.

Table 4. 3. Estimated daily income and expenditures for food items and non-food items of sample households

	Daily income	Expenditures for food items	Expenditures for non-food items
Number of respondents	90	90	90
Mean	281.11	153.61	127.5
Std. Deviation	109.282	64.864	69.514
Range	550	350	350
Minimum	150	50	50
Maximum	700	400	400
Sum	25300	13825	11475

Source: Survey (2021)

From the above estimated daily income, they spent from 25% to 83.3% to purchase food items. The result shows that purchasing food, supporting family, paying home rent, addiction expense, make up costs are most of their expenditure. In addition, they spend 16.7% to 75% of their income for costs of non-food items (Figure 4.2). Those nonfood items include clothes and cosmetics for 95.6% of the respondents. School fee (14.4%), paying loans (6.7%), supporting family members (74.4%) and home rent (73.3%) are their costs. In addition, 48.9% of them have addiction (*chat*, alcohol and cigar) and 8.9% of them have to pay for baby sitters at night when they go to work.

‘...I am dragged in to this life to provide for my children. I raise them by doing this dirty job. I don’t even have someone to look after my children while I go out at night. Therefore, I pay 50 birr for a night for people who look after the children of prostitutes as their job.’

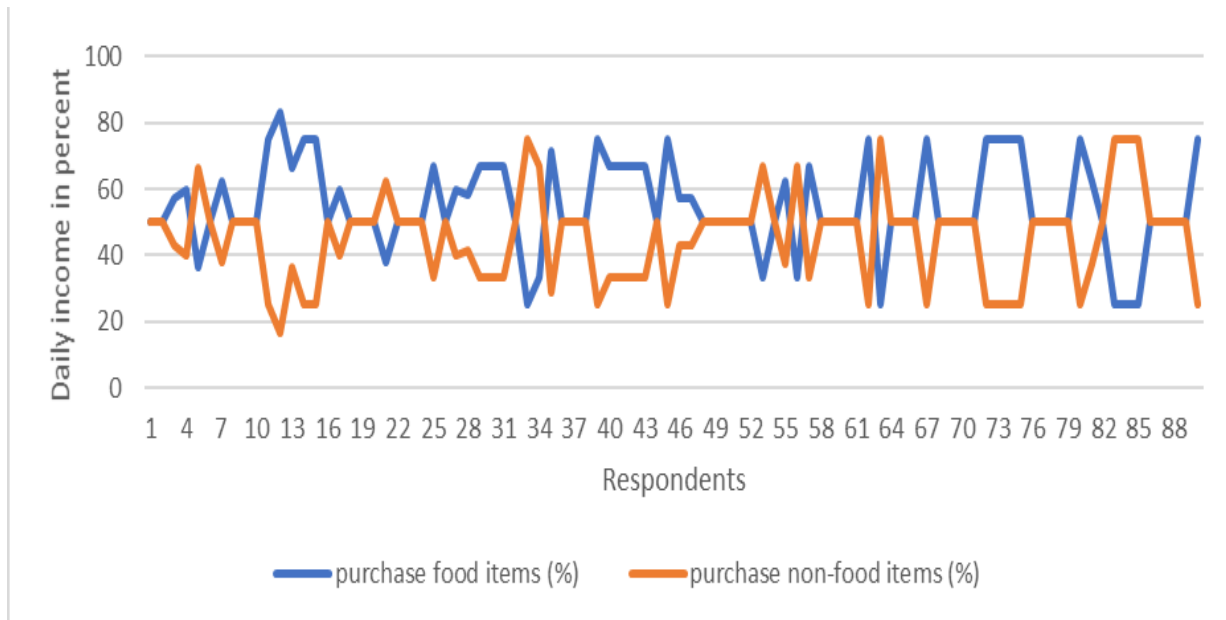


Figure 4. 2. Income expenditure of sample sex workers

Source: Survey (2021)

From the total respondents 57.8% of them have saving practices and only 20% of them participate in social networks (5.6% *Iddir* and 14.4% *Equb*). Common benefits obtained from participating in those social networks are financial and social support systems (Table 4.4). The result shows that most of the sex workers have no social participation in the community. Therefore, they don’t get social support from their community. Almost all of the sample sex workers who have saving practices do not have continues saving practices (because they cannot balance their daily income and expenditure). They save often only when they get unexpected income (when they go out with more than 1 or 2 men in a night). Similarly, Ejigayhu and Edriss (2012) in their study showed the relationship between saving and food security. They found out that saving practices are a significant variable in determining food security statuses of households.

Table 4. 4. COVID-19 effect on socio-economic factors of sample households

		Number of respondents	Percent (%)	Total (%)
Participate in social networks	No	72	80.0	100
	<i>Iddir</i>	5	5.6	
	<i>Equib</i>	13	14.4	
Saving	yes	52	57.8	100
	No	38	42.2	
Additional income	No	86	95.6	100
	Domestic work	3	3.3	
	Office work	1	1.1	

Source: Survey (2021)

4.2. Perceived effects of covid-19 on income and living statuses of sex workers

4.2.1. Effects of COVID-19 on income statuses of sex workers

Almost all of sample sex workers have awareness about COVID-19. They perceived that this pandemic affects their life in different ways, especially as it drastically affects their daily income and household food availability. 94.4% of the respondents partially changed their income source because of the Coronavirus pandemic and 5.6% of them totally got out of the business. Before COVID-19, these sex workers fully involved in this job trying to fulfill their needs. Now they couldn't continue the practice because of the pandemic. Even though they are striving to change their income source most of them find it difficult to fulfill their basic needs. The study shows 98.9% of the respondents' income is adversely impacted because of the pandemic only 1.1% of them are not badly impacted. According to Kiflie's (2021) study on the effects of COVID-19 on the income perspective; in Ethiopia, 1.5 million private employees and 3.1 million self-employed workers are affected by the pandemic. In similar expression, the official poverty line shows that the pandemic would double the poverty rate from 22% to 48% of the population. Sixty-one percent of employment in construction, hospitality, restaurants, and hotel sectors would be dropped. The

remittances would be reduced by 40% due to job losses of the diaspora. Most of these sex workers are self-employed and some of them work form hotels and restaurants.

On the other hand, household food availability adversely impacted 98.9% because of the Coronavirus pandemic and only 1.1% were not adversely impacted (Table 4.5). This shows that because of COVID-19 the household income status adversely affected. According to a hotel manager (key informant interview held on April, 2021 in Bole sub city woreda 4 around chichinia):

'... Most of them lost their jobs when hotels and bars closed during lockdown measures. There were 40 sex workers working in this hotel, when we closed it. We could not do anything for them because we cannot even pay the hotel rent let alone supporting them. So, all of them stay at home for month with stress, lone, hunger and many other problems. They were in very difficult situations; they didn't have income but they have to feed their children, family and themselves and pay other bills too. It was bad time for everyone but it was more difficult for sex workers. After sometime all 40 sex workers beg me to open this hotel then after a month we were back to work. At that time, the lockdown order was not over but we did not have a choice as everyone was struggling for survival. So, they get back to their jobs under different arrangement. Half of them work one day and the other half work the other day. During lockdown most of our customers did not come and working by shift severely affected the income of the women.' (KIIIm1, April, 2021, Addis Ababa)¹

Likewise, a nongovernmental organization (wise up) officer (key informant interview held on April, 2021 at Akaki Kality sub city around Adey Ababa) indicated that:

'... Our organization has 32 drop-in centers throughout the country. In these drop-in centers, more than 80 sex workers got support in different program activities. When Corona virus was first reported in Ethiopia, we locked these drop-in centers because of lockdown measures. At that time, all sex workers move out, as it happened suddenly, they did not have money to pay home rent. Moreover, they were forced to buy home supplies because before COVID-19 they lived in these drop-in centers and they didn't have to pay home rent and did not need home supplies. This pandemic damage many lives throughout

¹ KIIIm: Key Informant Interviews with Hotel Mangers

the world but sex workers were one of the most affected once. (KIIing3, May, 2021, Addis Ababa)²

When the sudden phenomena happened almost all sex workers lost their income because almost all bars and restaurants were closed. They were not ready to live with zero income. COVID-19 lockdown was a disaster for them, it leads them to stress, lone, hunger and many other problems. Their poor saving practices and lack of other livelihood options aggravate their situations during lockdown period.

Table 4. 5. COVID-19 assessment

COVID-19 assessment		Number of respondents	%	Total (%)
Aware of COVID-19	Yes	90	100	100
	No	0	-	
Change on source of income	Partially changed	85	94.4	100
	Totally changed	5	5.6	
	No change	0	-	
Impact on daily income	Yes,	89	98.9	100
	No	1	1.1	
Impact on household food availability	Yes,	89	98.9	100
	No	1	1.1	

Source: Survey (2021)

4.2.2. Effects of COVID-19 on living statuses of sex workers

During the COVID-19 lockdown, many lives changing experiences happened to sex workers. The study finding shows during the lockdown from the total number of respondents 68.9% were forced to stay at home, 84.4% lost their employment/job, 16.7% were displaced and 98.8% their incomes were declined (Table 4.6). In overall observation, this pandemic highly affects their livelihood status. During in-depth interviews, women stated the following stories (in interviews conducted on May, 2021 at Bole sub city woreda 4 around Chichiniya);

² KIIing: Key Informant Interviews with Non-Government Organization

'... My children are all grown now. The oldest is 18 and the other two are 12 and 9 years old. The youngest has a serious health condition she has a kidney illness. Most of the money I brought spent for her medication. When corona entered this bar was locked my life turned into a complete chaos. We had nothing to eat and the worst we cannot pay our rent. My proprietor told me to leave the house if I cannot pay the rent. As I have a sick child and a family to feed, I convince myself catching corona is less risk than dying over hunger. I spend so many days without food but seeing your Children to starve is very painful for a mother, and I started to work again; but because I worked limited days my income was very low and had to struggle a lot.'

In the same way interview case story stated in the interview hold on May, 2021 at Akaki Kality sub city woreda 6 around Adey Ababa expresses:

'... As corona entered our accommodation here at drop-in center was closed, our business stopped and we all scattered. But as I had nowhere to go, I started to work on streets. Because of the lockdown order when police found me on streets, they used to hit me. But I had nothing to eat and had no place to stay I kept on working on the streets in spite of the beating of the police. However, one day the police found me and started beating me brutally. When I tried to run to get away, I fall down and they beat and kicked me while I fall, then my arm was broken and could not continue working. And until the lockdown restriction took off and get back to drop-in center I lived in the streets.'

The above two case stories show the painful moments of the informants during the pandemic. COVID-19 lockdown measures affect living statuses of sex workers in many ways, like not affording medications costs, spent day and night without food, go to street life, couldn't pay rent and some other challenging conditions.

Likewise, only 44.4% of the respondents found some support (food items like oil, rice, spaghetti, macaroni, wheat flour and some detergents) from government or other organization to curb the impacts (15.6%, 17.8%, 6.7% and 4.4% respondents supported by government, NGO, Neighbor/s and family respectively) (Table 4.6). According to the respondents those supports was not enough to feed themselves and their family. It shows that COVID-19 lockdown measures are highly

affected the lives of sex workers and their families. According to this a key informant interview in the interview hold on May, 2021 at Bole sub city woreda 4 started that:

'...From the beginning their food security status was in danger even before the pandemic. When the pandemic emerged, their statuses get worse and become severely food insecure, and their livelihood directed in to a highly vulnerable condition. At the pandemic, they tried to pass those horrific days even by begging. Even though it was not much, they also got some help from the woreda offices, which provides basic need commodities. But because the support they get from the government and the society couldn't hold them for long period of time, some of them continued to work their previous job by hiding from the police and exposing themselves to the pandemic. The woredas provide basic food commodities such as edible oil, wheat flour, which is funded from the government and by collecting money from household's door to door. The money and kind distributed for those who are in the most vulnerable conditions. But the support was inadequate and didn't cover to all because of the shortage of' (KIIgw, May, 2021, Addis Ababa)³

The other key informant interview with woreda administration officer at Bole sub city woreda 4 in the interview hold on May, 2021 stated that:

'... Situation did not allow them to move and to do their daily work so they were forced to stay home. At first, they tried to continue their work but the situation did not allow them. Then I think they were searching other options to fulfill their daily basic need but it was not that easy. Their daily life routines were completely changed it was hard to adapt new way of life and they fall in Sevier food insecure situations. The woredas tried to help them by providing edible products collected from the society, non-government organization and directly from the government's own fund. In our woreda context we spent more than 8 million birr to help elderlies, sex workers, street children and disabled social groups.' (KIIga, May, 2021, Addis Ababa)⁴

³ KIIgw: Key Informant Interviews with Government Women and Child Affair officer

⁴ KIIga: Key Informant Interviews with Government Administration Officer

But in the data collection the finding from sex workers shows they didn't get those kinds of support from governmental organization or woreda biro; the finding from the sex workers shows, woreda officers give only once (2 kg macaroni, 5kg wheat flour and 1 litter oil) for very few numbers of sex workers, they said didn't know why most of them was not including in that support.

In the same way one of non-governmental organization work on sex workers stated during key informant interview hold on May, 2021:

'... Our organization supported 102 sex workers during the pandemic. The support was collected from different individuals, and business. Our organization's main role was coordinating stakeholders and announcing the problems of the sex workers for the general public. The support was spaghetti, macaroni, oil, 50 kg (teff flour) for each.' (KIIng1, May, 2021, Addis Ababa)

According to Messay (2021b) study on women and girls in different Ethiopian regions shows the support systems for affected groups during the pandemic. The study observed that there were no well-established support systems for the victims of the pandemic. The existing attempts to support the victims are disorganized and irregular. Government organizations (such as the woreda food security and disaster risk management offices) and some NGOs/CSOs have tried to address the needs of the poor victims under irregular and disorganized manner. According to some key informants and discussants, the supports have been insufficient and irregular, this means there was no support on regular basis (like weekly or monthly, etc) and the supplies are also inadequate as compared to the needs of the people.

On the other hand, study on COVID-19 impacts on the life of vulnerable groups in Addis Ababa shows some helpful supports for vulnerable groups (women): In case of COVID-19 pandemic, integrated family service organization supported about 495 women who lost their jobs because of the pandemic. The women were vulnerable to physical, psychological and sexual violence. Integrated family service organization provided the women with food, oil and 900 birrs has been paid in cash to each woman over 7 months during the serious periods of Corona virus pandemic. The kind support includes provision of wheat flour, blankets, edible oil and sanitizers (Messay, 2021a).

Table 4. 6. COVID-19 effect on living statuses of sex workers

COVID-19 assessment		Number of respondents	Percent (%)	Total (%)	
Any support (Food items like oil, spaghetti, rice, macaroni, wheat flour and some detergents)	Yes	Government	14	15.6	100
		NGO	16	17.8	
		Neighbor/s	6	6.7	
		Family	4	4.4	
	No	50	55.6		
Changes happened on daily life during COVID-19 lockdown	Staying at home	62	68.9	100	
	Lost their employment/job,	76	84.4		
	Displaced	15	16.7		
	Reduced income	89	98.8		

Source: Survey (2021)

4.2.3. Suggested solutions to protect sex workers against perceived effect of COVID-19

During focused group discussions and key informant interviews, most of the informants discussed about potential ideas possibilities to protect sex workers from effects of COVID-19 and its lockdown measures. Particularly, about sex workers facing food insecurity during this Coronavirus pandemic and even for their forthcoming existences. There were also discussions about stakeholders and partners who have responsibility on this area. Similarly, focus group discussant at Bole sub city around Chichiniya held on April, 2021 indicated:

‘... We need stable life with sustainable and dissent job. We all never wanted to get into this job. But we have no choice we do this to survive and support our family. We wish we have different livelihood options we can engage and change our lives. The Government has to be the first body to protect us during this pandemic or even from all distress phenomena at all time. The other stockholders are non-governmental organizations which work on the sex workers life; there are several NGOs work on us but their contributions never brought significant changes on sex workers livelihood and food security statuses. ...We need to be considered under every order of the government like lockdown; when the

government orders this kind of restriction it should consider our situation. But we feel it failed to consider our life and problems. Because of the lockdown most of us left for hunger starvation. If we had livelihood options, we can change our life from this kind of insecure, unsafe and socially an acceptable income source. We as a citizen need to have a chance to start stable life... ’ (FGD 02, April, 2021, Addis Ababa).

In the same way, interviews with key informants at Akaki Kality sub city worda 6 social and labor officer held on May, 2021 stated that:

‘... Sex workers are always living in vulnerable condition concerning food insecurity and the pandemic itself. Therefore, they are under our lists of most vulnerable social group. We will discuss with the Woreda’s Micro and Small-Scale Entrepreneur Development office (MSSENDO) how to create new job opportunities by giving them trainings and credit with collaborating from different stockholders. Such as non- governmental organizations, investors, vocational training schools and even the community in which they are living to change their livelihood sustainably. Also, women and Child Affair Minster or Office from the Federal government level to the regional level and as well as to the woreda level must be the permanent stakeholder for the sex workers.’ (KIIgs, May, 2021, Addis Ababa)⁵

Both the above FGD and KII shows sex workers instable life and how they were affected because of COVID-19. They always live under vulnerable condition so they need other livelihood options which help them to build their resilience against such threats like COVID-19. Woreda’s Micro and Small-Scale Entrepreneur Development office, vocational training schools, Women and Child Affair and non- governmental organizations work on sex workers are the main stockholders. Those stockholders have responsibilities on building sex workers capacity and create livelihood options for them.

Key informant interviews at Akaki Kality sub city worda 6 Health officer held on May, 2021 stated that:

‘... As a woreda’s Health Office during the lockdown we worked on awareness creation on how the virus transmitted and giving masks and sanitizers for those who can’t afford to

⁵ KIIgs: Key Informant Interviews with Social and Labor Officer

buy; and sex workers were included in this activates. But for sustainable change during the pandemic and even after that I think the Federal government must build strong policy. And the policy should involve different stockholders such as NGOs, Investors, Community members, Religion leaders etc. in order to make a valuable change on the lives of sex workers and same social groups. All stakeholders like Regional Women and Child Affair Minster have to take prior act to support women in the sex work in order to support their food insecurity problems during this pandemic.’ (KIIgh, May, 2021, Addis Ababa)⁶

Likewise, during key informant interview: another non-governmental organization informant recommends that:

‘... we worked on creating awareness about saving, iqub and ider because, such institutions help them in such conditions. Creating job opportunity, working with different organization like rehabilitation centers are main methods that helps to work on sex workers life. The Government, NGOs, business organizations, hotel owners and Medias are our possible stockholders for this work.’ (KIIng2, May, 2021, Addis Ababa)

The above two KIIs gives good recommendation on how to increase sustainably. Sex workers life challenges are not only aggravated by the COVID-19. There are so many reasons before and after the pandemic so they need sustainable change and stable life. Working with rehabilitation centers, medias, religion leaders and community leaders are some of the most important steps.

4.3. Food security analysis

This study employed three different food security analysis methods. The first method was Household food insecurity access score (HFIAS) and was used to analyze the access components of food security in four indicators. Those indicators are household food insecurity access-related conditions, household food insecurity access-related domains, household food insecurity access scale score and household food insecurity access prevalence. The second method was food consumption score (FCS). It analyzed the frequency of consumption of different food groups

⁶ KIIgh: Key Informant Interviews with Government Health Officer

consumed by the households, it shows food diversity. The third method was coping strategy index (CSI). It analyzed household coping mechanisms during the COVID-19 lockdown period.

4.3.1. Household food insecurity access score (HFIAS)

As it was revealed in Chapter three, HFIAS is one of techniques that was utilized in this study to analyze the access components of food security of sex workers who participated in the study. This study shows all HFIAS indicators for better explanation on the food security statuses of those sex workers.

4.3.1.1. Household food insecurity access-related conditions

This indicator set consists of the responses to the individual occurrence questions and frequency of occurrence questions. The study shows the percentage of the households who had in most severe condition during the COVID-19 lockdown period (Table 4.7).

Table 4. 7. Household food insecurity access-related conditions

No	Household Food Insecurity Access-related Conditions for 30 days	Severity status and number of respondents			
		Response (yes)		frequency (Often (more than ten times in a month))	
		Number of respondents	(%)	Number of respondents	(%)
1	Worry not have enough food	85	94.4	66	73.3
2	Not able to eat the kinds of foods you preferred because of a lack of resources?	85	94.4	65	72.2
3	Eat a limited variety of foods due to a lack of resources?	85	94.4	67	74.4
4	Eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	85	94.4	58	64.4

5	Eat a smaller meal than you felt you needed because there was not enough food?	85	94.4	60	66.7
6	Eat fewer meals in a day because there was not enough food?	82	91.1	53	58.9
7	No food to eat of any kind in your household because of lack of resources to get food?	71	78.9	3	3.3
8	Go to sleep at night hungry because there was not enough food?	72	80	8	8.9
9	Go a whole day and night without eating anything because there was not enough food?	42	46.	0	-

Source: Survey (2021)

As showed in Table 4.7, 94.4% of the households were worried that would not have enough food for a month during the lockdown period. Also, from those households 73.3% of them were experienced these conditions more than ten times in a month. Likewise, 94.4% of the households were not able to eat the kinds of foods they preferred because of a lack of resources for a month. From those households 72.2% of them were experienced these conditions more than ten times in a month. The other most frequently experienced conditions during the pandemic were eat a limited variety of foods due to a lack of resources by 94.4% households and 74.4% of them experienced these conditions more than ten times in a month. The finding shows that most of the respondents experienced all conditions except the last one (go a whole day and night without eating anything because there was not enough food) in table 4.9 more than ten times in a month during lockdown, which shows the severity of their food insecurity.

4.3.1.2. Household food insecurity access-related domains

According to Coates et al. (2007) the concurrence questions can be grouped into 3 domains to which they relate to with regard to food insecurity that have been found to be common across cultures. These domains are:

- Anxiety and uncertainty about the household food supply (Q1)
- Insufficient Quality (includes variety and preferences of the type of food) ((Q2, Q3, Q4)
- Insufficient food intake and its physical consequences (Q5, Q6, Q7, Q8 and Q9)

During COVID-19 lockdown period, 94.4% of the respondents experienced anxiety and uncertainty at different level. Similarly insufficient quality (includes variety and preferences of the type of food) of food were consumed by 94.4% of the households for a month at different level of severity. The third category of Household Food Insecurity Access-related Domains is insufficient food intake and its physical consequences, from the total respondents 78.2% households were in these practices for a month at rarely, sometimes and often level of severity (Table 4.8).

Table 4. 8. Household food insecurity access-related domains

No	Household Food Insecurity Access-related Domains	HFIAS for 30 days	Response (yes)		
			Number of respondents		(%)
1	Anxiety and uncertainty	worry not have enough food	85		94.4
2	Insufficient Quality (includes variety and preferences of the type of food)	Not able to eat the kinds of foods you preferred because of a lack of resources?	85	255	94.4
		Eat a limited variety of foods due to a lack of resources?	85		
		Eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	85		
3	Insufficient food intake and its physical consequences	Eat a smaller meal than you felt you needed because there was not enough food?	85	342	78.2
		Eat fewer meals in a day because there was not enough food?	82		
		No food to eat of any kind in your household because of lack of resources to get food?	71		
		Go to sleep at night hungry because there was not enough food?	72		
		Go a whole day and night without eating anything because there was not enough food?	42		

Source: Survey (2021)

4.3.1.3. Household food insecurity access scale score

In this study the maximum HFIAS score for the household was 26 and the minimum score was 0 (Figure 4.3). The average Household food insecurity access scale Score was 17.5, which shows high level of food insecurity. The results show that about 65% of the households were above the average score. Consistently, the highest HFIAS score indicate the more households experience food insecurity (Coates et al., 2007).

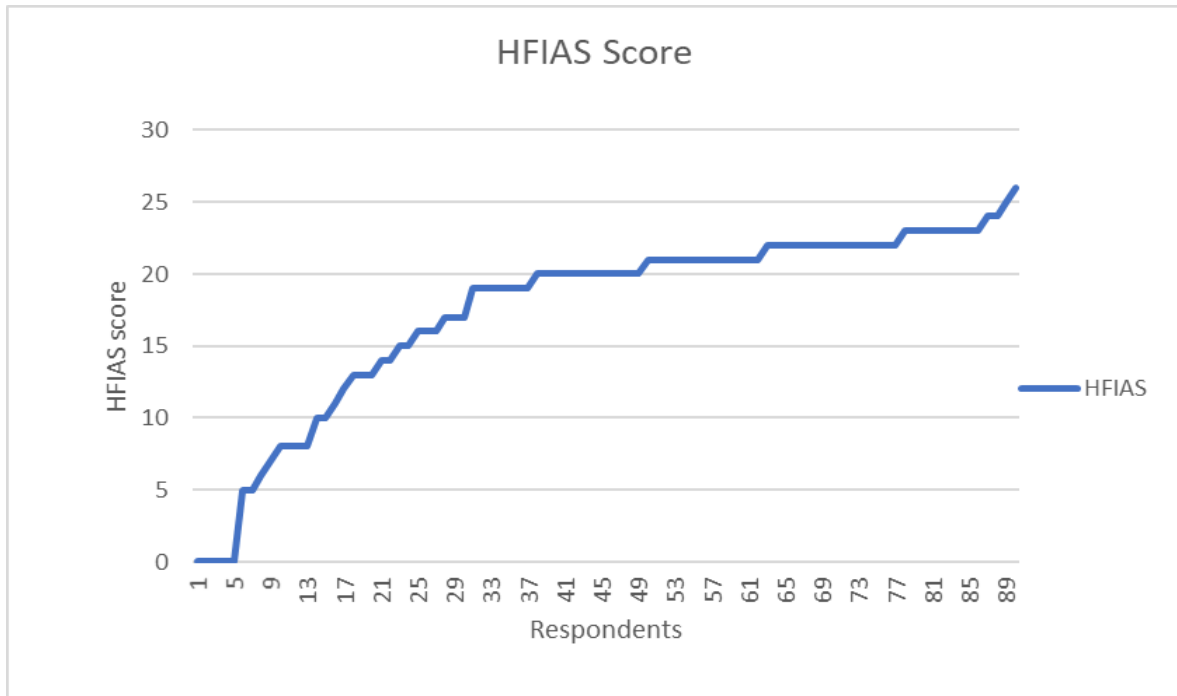


Figure 4. 3. HFIAS Score

Source: Survey (2021)

4.3.1.4. Household food insecurity access prevalence

The final indicator is a categorical indicator of Food Insecurity Status. The HFIAP indicator categorizes households into four levels of household food insecurity (access): food secure, and mildly, moderately and severely food insecure. Households are categorized as increasingly food insecure as they respond affirmatively to more severe conditions and/or experience those conditions more frequently (Coates et al.,2007).

Table 4. 9. HFIAP result

Questions	Frequency				
	No	Rarely (once or twice in a month)	Sometimes (three to ten times in a month)	Often (more than ten times in a month)	Total
1a	5	8	11	66	90
2a	5	10	10	65	90
3a	5	8	10	67	90
4a	5	10	17	58	90
5a	5	12	13	60	90
6a	8	10	19	53	90
7a	19	57	11	3	90
8a	18	35	29	8	90
9a	48	41	1	0	90

Source: Survey (2021)

According to HFIA category

1 = Food Secure,

2 = Mildly Food Insecure,

3 = Moderately Food Insecure,

4 = Severely Food Insecure

HFIA Prevalence Percentage of households that fall in each food insecurity (access) category.

$$\frac{\text{Number of households with HFIA category}}{\text{Total number of households with a HFIA category}} \times 100$$

$$\text{Category 1. Food secure} = \frac{13}{697} \times 100 = 1.9\%$$

$$\text{Category 2. Mildly food insecure} = \frac{180}{697} \times 100 = 25.8\%$$

$$\text{Category 3. Moderately food insecure} = \frac{206}{697} \times 100 = 29.6\%$$

$$\text{Category 4. Severely food insecure} = \frac{298}{697} \times 100 = 42.7\%$$

Table 4. 10. HFIAS category

No	category	Percent (%)
1	Food secure	1.9
2	Mildly food insecure	25.8
3	Moderately food insecure	29.6
4	Severely food insecure	42.7

Source: Survey (2021)

The result shows that the majority of the households are severely food insecure (42.7%). Also, 29.6% of the households are moderately food insecure while the remaining 25.8% and 1.9% of the study households are mildly food insecure and food secured respectively. It means that the three categories (mildly food insecure access, moderately food insecure access and severely food insecure access) are 98.1% of the respondents are food insecure. So, COVID-19 highly affected the food security (access) statuses of sex workers during the lockdown period.

4.3.2. Food consumption score (FCS)

The frequency weighted diet diversity score or “Food consumption score” is a score calculated using the frequency of consumption of different food groups consumed by a household during 7 days before the survey (WFP, 2008). FCS used in this study as food security analysis tool. During the survey most of the respondents use oil and sugar almost every day so I used 28 and 42 scores as cut of points, that means: Less than 28 scored households have poor food consumption; between 28 and 42 scored households have borderline food consumption and more than 42 scored households have acceptable food consumption. During COVID-19 lockdown period most of the sex workers were in stress because of deficiency of income. At that time most of them couldn’t afford to Purchas enough food; nutritious and balanced diet was luxury for them. Almost all of the respondent consumes main staples (*injera* and bread) every day. but this is also in different portion size and the number of meals consumed everyday vary. From pulse food group beans were consumed as *shiro wete* for two to seven days in a week. For most of the respondents purchase and consumption of vegetables, fruits, meat and milk is a considered as luxury. But some of them especially those who have children used those food groups (tomato, banana, milk and beef) very often.

The FCS results on Table 4.11 shows that 10% of the households in the study site have poor food consumption, 77.8% of them have borderline food consumptions and only 12.2% of the households have acceptable food consumption. 87.8% of the households are poor and borderline food consumption score that means they are food insecure. And only 12.2% of the households have acceptable food consumption score, which means they are food secured.

However, the FCS analysis is difficult to classify food secure and insecure households, and the level of insecurity in our county context because our meals are different from other countries. For example, if a person eats one *injera* with *shiro wete* once in a day for seven days in a week without any other food, the FCS score of that person is 35 that means borderline food consumption. But when we calculate the kilocalories of one *injera* with *shiro wete* it contains very little calorie when compared with recommended calorie intake needed per day. This kind of analytical limitations were faced during the survey. Most of the respondents consume *injera* with *shiro* only one or two times in a day without additional food.

Table 4. 11. Food Consumption Score

Food Consumption Score	Number of respondents	Percent (%)
Poor	9	10.0
Borderline	70	77.8
Acceptable	11	12.2
Total	90	100

Source: Survey (2021)

A key informant interview held on May, 2021 in Akaki Kality sub city wereda 6, a government health officer expressed that:

‘...The lockdown and restrictions of movement affected sex workers working in Hotels, bars and pubs. Because if customers don’t come to those places and hotels, bars and pubs were closed they can’t work or earn money for their living. Thus, sex workers were the most vulnerable group during this pandemic because their work forces them to have contact with another person. Which is the main way of transmitting or coughing the virus. Therefore, they have to expose themselves to the disease or forced to stay at home and get starved. Food supply and food security is a basic human need and a basic requirement

for survival. Therefore, household food insecurity statuses of sex workers during the pandemic were exponentially increased and the lack of access to sufficient nutritious food leads to health problems including under-nourishment, immune deficiencies, illnesses and higher mortality rates. (KIIgh, May, 2021, Addis Ababa)

4.4. Coping strategy index (CSI)

The food consumption related CSI result of the study shows that the households used most of the coping strategy that are listed on the questionnaire. The only coping strategy they didn't practice was 'feed working members of HH at the expense of non-working members' because the study conducted in urban area and non-working members are depends on the working members of the HHs (sex workers). The remaining strategy were used in different frequencies. 93.7% of the HHs rely on less preferred and less expensive foods in a week and only 6.7% didn't use it. Limit portion size at mealtimes was the second most frequently used coping strategy during the COVID-19 lockdown period; 91.1% of the HHs were used it in a week and 8.9% of them didn't use it at all. The third most frequently used strategy was restricted consumption by adults in order for small children to eat, 70% of respondents used in a week and 30% of them didn't used it at all (most those respondents didn't have children). Consume stock held for next season was the other strategy used by 54.5% of respondents in a week and 45.5% of them didn't used it because most of them have no any stock at that time. Borrow food, or rely on help from a friend or relative (67.8%), Purchase food on credit (72.2%), send household members to eat elsewhere (60%), reduce number of meals eaten in a day (90%), Skip entire days without eating (11.2%) and Send household members to beg (5.6%) were used strategy with different frequency (from one day to seven days in a week). The Table 4.12 results shows that most of the study samples used most of the coping strategies, it indicates those households were food insecure.

Table 4. 12. Food consumption related coping strategy responses

In the past 7 days, if there have been times when you did not have enough food or money to buy food, how many days has your household had to	Number of Respondents answer in percent for each question in the past seven	
	No (%)	Yes (%)
Rely on less preferred and less expensive foods?	6.7	93.7
Limit portion size at mealtimes?	8.9	91.1
Restrict consumption by adults in order for small children to eat?	30	70
Consume stock held for next season?	45.5	54.5
Borrow food, or rely on help from a friend or relative?	32.2	67.8
Purchase food on credit?	27.8	72.2
Send household members to eat elsewhere?	40	60
Send household members to beg?	94.5	5.5
Reduce number of meals eaten in a day?	10	90
Skip entire days without eating?	88.9	11.1

Source: Survey (2021)

In addition to food consumption related CSI, during the COVID-19 lockdown sex workers took different kinds of livelihood related coping mechanisms for survival; 37.8% are use loan, 18.9% are move to family or partner, 37.8% are taking support from others, 47.8% are use there saved money, 58.9% of them are back to their job (sex work) when clients were there, 3.3% are go to domestic work, 6.7% are selling any assets and 4.4% resorted to street life as coping mechanisms to survive (Table 4.13). According to Degye et al. (2020) shows on their assessment on COVID-19 effect and response measures in Ethiopia: Households are expected, based on local conditions, to search for and adopt methods or strategies deemed relevant to mitigate the economic effects of the pandemic. About 15 potential coping strategies were listed by households to lessen the adverse income loss effects of the pandemic. Unfortunately, the majority of the households (55.2 percent) do not have coping mechanisms to cushion the negative income effects of the pandemic. Close to

59.1 percent rural households reported being more vulnerable to income loss compared to 48.4 percent urban households.

Table 4. 13. Livelihood related coping mechanisms

Coping mechanisms used during lockdown	Respondents	Present (%)
Use loan	34	37.8
Move to family or partner,	17	18.9
Taking support from others	34	37.8
Saved money	43	47.8
Back to sex work when clients were there	53	58.9
Selling any assets	6	6.7
Domestic work	3	3.3
Street life	4	4.4

Source: Survey (2021)

According to Messay (2021b) study on women and girls: families surveyed were more likely to be affected by the social and economic impacts than their health cases. Among other adverse impacts, the situation of the pandemic significantly reduced their income, forced them to change their business settings, reduced remittance, and resulted in scarcity of necessities such as food and clothes. So, the victims of the pandemic have tried to cope up the impact of the pandemic through different mechanisms. Among these were seeking the support of family/relatives, NGOs, government organizations, changing of livelihoods mechanisms, involvement in more low paying jobs.

On a focus group discussion held on May, 2021 at Akaki Kality sub city around Aday Ababa participants stated:

‘... Coronavirus is the most troubling incident that has shaken everyone’s life. It affects not only the health system, but also every aspect of life especially for those with low economic statues. It even affects people with high economic status. We think it’s the first thing in our generation that affects humankind all over the world. Its effect on life of sex workers is even worse. We all work every day to fulfill our family responsibilities and needs (food, home rent, close, and other basic needs), but when corona comes our life suddenly

came to a halt. At that time most of us didn't have money to provide for our family and even ourselves. We can't go out to work because the government orders lockdown and the hotels, bars and restaurants that we worked were closed. Also, we can't go to the streets because the police officers were chasing us. Corona brought hell for most of us.

...At that time because of loss of our livelihoods we didn't have money to buy food and food items properly so most of us were spending the day with hunger. There were many days that we slept without food. The most disturbing thing of all was watching children starved. They asked food and other things continuously but we can't do any of that. we also couldn't send money for parents who need our support. Most of us tried to go back to work even if the police officers were there. Most of the time police officers found us and they bit and arrested us. Some of our friends go to their parents to the countryside. some of us got out to street and begged, because we don't have family who can support us financially or money to pay for rent. And some of us used whatever savings we had and when that is finished started talking for loans...' (FGD 01, May, 2021 Addis Ababa).

Similarly, a sex worker stated her pain during an in-depth interview on May, 2021 at Akaki Kality sub city around Aday Ababa. She states:

'...When corona entered, I had no savings even that sustains me for a month. We had nothing to eat and no money to pay for rent. Even though I wanted to continue to work hiding from the police, my landlord didn't allow me to go out and work. She told me that I should leave the house if I want to continue to go out to work. I tried to stay home for a while, but when my children starved. Then I started sneaking out of the house to work. The other challenge was when the police found me, they chased and beat me. I returned beaten and empty handed many times. Some days let alone being able to pay for the house rent, or buy food, I could not even pay the 50 birr for the people who look after my kids while I got out to work. So, to cover all these expenses I had to take loans that I couldn't pay. And finally reached at the point where I couldn't cover our life expenses. And one day I even went to church to beg at least to feed my children. But even the church was close and no one was there. Then I went back home and screamed. It was clear the situation is beyond my capacity and could not handle my life anymore. My neighbors came in and asked me what happened. I said, crying, we are hungry and I couldn't feed my children. They gave

me some food and what they could. I fed my children that food sparingly, and I spent so many days without eating because I was afraid of not having food to give my children.

Lockdown period was the most difficult time to pass through for sex workers. More often their job makes them vulnerable for different life challenges like stigma, sexual abuse, harassment and many problems. But this pandemic leads them to the most difficult life challenge. But they still struggled to survive using livelihood related coping mechanisms in different level. Those mechanisms were discussed on the above focused group discussion and case story in detail.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The objective of this study was to explore the impacts of COVID-19 semi lockdown measures on the food security statuses of sex workers in Addis Ababa. The finding shows sex workers poor educational background and skill are major factors for their lack of alternative work exposure. Often times sex workers are the only providers in their extended family. Household food availability and daily income were adversely impacted because of the Corona virus pandemic and they couldn't cover their expenditure as their daily income dried up. During the lockdown and the followed preventative measures against the pandemic, most sex workers and their families were extremely affected economically which led them to food insecurity. The study also showed that sex workers saving practices are poor. The ones who have tried to save money also lack persistence because of unreliable income. Lots of them were caught off guard and were unprepared because of the sudden outbreak of COVID-19 and the preventive measures against the pandemic which severely curtailed their livelihood.

During COVID-19 lockdown period most of the sex workers were in stress because of deficiency of income. At that time most of them couldn't afford to Purchas enough food; let alone sufficient quality, quantity and balanced diet, these were luxury for them. The three food security analysis methods show that most of them and their families were food insecure (in HFIAS analysis 98.1% and FCS analysis 87.8%) because of COVID-19 and the ensuing government measures.

The study found out that during the COVID-19 lockdown sex workers applied different kinds of mechanisms to survive. But most of them suffered a lot because they don't have any other livelihood options and they did not get adequate support from the government or other organizations. This research concluded that COVID-19 pandemic and the preventative measures such as lockdown and physical distancing affected the livelihood and food security of sex workers and their families.

5.2. Recommendations

- Even though there are some assessments on food security status of sex workers there is lack of assessment on their actual needs and their capacity to support themselves. Therefore, government organizations like Women and Children Affairs and Social and Labor offices and NGOs working on the life of sex workers must assess their capacity first and based on their evaluation they have to prepare entrepreneurship training and activities. The findings of the study show that most of the sex workers joined the sector for the sake of survival, subsistence and provide help for their families. Henceforth, they don't want to stay in this job because of its devastating life challenges and agony they endure. Often times they are scared to take the risk of exposing their identities to receive training, counseling and the chance to take up other stable means of livelihood options that could build their financial capacity and ensure food security.
- There are some organizations that assist sex workers on health hazard issues such as HIV/AIDS and related problems. However, most of the time these organizations tend to victimize the sex workers because their work tends to consider them as vectors and discouraged them to actively participate as a group. Therefore, it is advisable to create strong unions of sex workers as a group because such measures could help them get sound support; considering them as social members with the chance to participate in any project according to their capacity and interest. For instance, there are many NGOs that have projects on women and youth capacity building and development. Even though most sex workers are young and women, the projects usually do not include them because there are no strong organized unions of sex workers in the country.
- Saving is very important for sex workers to safeguard them in the event of financial emergency like COVID-19 pandemic lockdown and preventative measures against it. Sex workers' saving practices are very poor and need improvement. Woreda credit and saving institutions should create the proper awareness among these vulnerable groups of the society. They have to offer training and assistance to motivate them develop saving practices and access to credit. Proper counseling, monitoring and evaluation for their new must be provided by these institutions.
- There are many governmental offices which have responsibility to cater the needs of sex workers like Women and Children Affairs and Social and Labor offices in every

woredas and zones. But oftentimes, these stakeholders are not actively involved in supervising and helping sex workers and lack strong monitoring and evaluation to do their activities according to plan and budget. Moreover, sex workers need support (financial or food aid according to their needs and level of food insecurity) and advice from government organizations and NGOs during unforeseen problems, such as the one caused by the COVID-19 phenomenon.

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Appendix

Appendix 1: Household Food Insecurity Access Scale questions

	Questions	0 = No 1 = Yes	How often did this happen? 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)
1	In the past four weeks, did you worry that your household would not have enough food?		
2	In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?		
3	In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?		
4	In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?		
5	In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?		
6	In the past four weeks, did you or any household member have to eat fewer meals in a day because there was not enough food?		
7	In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?		
8	In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?		
9	In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?		

Source: Coates et al. (2007)

Appendix 2: Weights recommended by VAM

Food groups	Weight	Justification
Main staples	2	Energy dense/usually eaten in larger quantities, protein content lower and poorer quality (PER17 less) than legumes, micro-nutrients (bound by phytates).
Pulses	3	Energy dense, high amounts of protein but of lower quality (PER less) than meats, micro-nutrients (inhibited by phytates), low fat.
Vegetables	1	Low energy, low protein, no fat, micro-nutrients
Fruit	1	Low energy, low protein, no fat, micro-nutrients
Meat and fish	4	Highest quality protein, easily absorbable micronutrients (no phytates), energy dense, fat. Even when consumed in small quantities, improvements to the quality of diet are large.
Milk	4	Highest quality protein, micro-nutrients, vitamin A, energy. However, milk could be consumed only in very small amounts and should then be treated as condiment and therefore re-classification in such cases is needed.
Sugar	0.5	Empty calories. Usually consumed in small quantities.
Oil	0.5	Energy dense but usually no other micro-nutrients. Usually consumed in small quantities
Condiments	0	These foods are by definition eaten in very small quantities and not considered to have an important impact on overall diet.

Source: WFP (2008)

Appendix 3: Coping Strategies Index (CSI) behavior

	Behaviors:	Frequency:
	In the past 7 days, if there have been times when you did not have enough food or money to buy food, how many days has your household had to:	Number of days out of the past seven: (Use numbers 0 – 7 to answer number of days; Use NA for not applicable)
1	Rely on less preferred and less expensive foods?	
2	Borrow food, or rely on help from a friend or relative?	
3	Purchase food on credit?	
4	Consume stock held for next season?	
5	Send household members to eat elsewhere?	
6	Send household members to beg?	
7	Limit portion size at mealtimes?	
8	Restrict consumption by adults in order for small children to eat?	
9	Reduce number of meals eaten in a day?	
110	Skip entire days without eating?	

Source: Maxwell and Caldwell (2008)

Appendix 4: SPSS result of socioeconomic statuses of sex workers

Spent daily income for purchase food items				Spent daily income for purchase non-food items			
Daily income in percent (%)	Frequency (%)	Percent (%)	Cumulative Percent (%)	Daily income in percent (%)	Frequency (%)	Percent (%)	Cumulative Percent (%)
25.0	5	5.6	5.6	16.7	1	1.1	1.1
33.3	3	3.3	8.9	25.0	13	14.4	15.6
36.4	1	1.1	10.0	28.6	1	1.1	16.7
37.8	1	1.1	11.1	33.3	9	10.0	26.7
50.0	45	50.0	61.1	36.4	1	1.1	27.8
57.0	1	1.1	62.2	37.5	3	3.3	31.1
57.2	2	2.2	64.4	40.0	3	3.3	34.4
58.3	1	1.1	65.6	41.7	1	1.1	35.6
60.0	3	3.3	68.9	42.8	2	2.2	37.8
62.5	3	3.3	72.2	43.0	1	1.1	38.9
66.6	1	1.1	73.3	50.0	45	50.0	88.9
66.7	9	10.0	83.3	62.5	1	1.1	90.0
71.4	1	1.1	84.4	66.6	1	1.1	91.1
75.0	13	14.4	98.9	66.7	3	3.3	94.4
83.3	1	1.1	100.0	75.0	5	5.6	100.0
Total	90	100.0		Total	90	100.0	

Source: Computed from own survey (2021)

Additional income sources					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	86	95.6	95.6	95.6
	Domestic work	3	3.3	3.3	98.9
	Office work	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Participate in social networks					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	72	80.0	80.0	80.0
	Iddir	5	5.6	5.6	85.6
	Ecobe	13	14.4	14.4	100.0
	Total	90	100.0	100.0	

Appendix 5: SPSS result of perceived effects of COVID-19 on sex workers

Statistics					
	Are you aware of COVID-19	Any change in your income source because of the Coronavirus pandemic	Any adverse impact on your daily income amount because of the Coronavirus pandemic	Any adverse impact on your household food valuably because of the Coronavirus pandemic	Any adverse impact on your or your household because of the Coronavirus pandemic
Valid	90	90	90	90	90

Aware of COVID-19					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	90	100.0	100.0	100.0

Any change in your income source because of the Coronavirus pandemic					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Partially changed	85	94.4	94.4	94.4
	Totally changed	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Any adverse impact on your daily income amount because of the Coronavirus pandemic					
		Frequency	Percent	Valid Percent	Cumulative Percent
Yes, there is an adverse impact		89	98.9	98.9	98.9
No adverse impact		1	1.1	1.1	100.0
Total		90	100.0	100.0	

Any adverse impact on your household food availability because of the Coronavirus pandemic					
		Frequency	Percent	Valid Percent	Cumulative Percent
Yes, there is an adverse impact		89	98.9	98.9	98.9
No adverse impact		1	1.1	1.1	100.0
Total		90	100.0	100.0	

Appendix 6: SPSS result of food security status of sex workers

Statistics			
		Household Food Insecurity Access	Food Consumption Score
N	Valid	90	90
	Missing	0	0

Food Consumption Score					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	9	10.0	10.0	10.0
	Borderline	70	77.8	77.8	87.8
	Acceptable	11	12.2	12.2	100.0
	Total	90	100.0	100.0	

Appendix 7: Questionnaire

Survey Questionnaire

Dear respondent,

My name is Gelila Tesfaye and I am MSc student in Addis Ababa University college of Development studies. This questionnaire's main objective is to conduct a Study on the impacts of COVID-19 lockdown measures on the food security statuses of sex workers in Addis Ababa, Ethiopia. The study targeted to generate evidence on the Impact of COVID-19 on food security statuses of sex workers. Therefore, your responses to the questions are valuable and will be held in utmost confidentiality to be used only to analyze this research. If you accept participating in this research, you will be doing so voluntarily. You are also free to refuse to respond to any questions you do not feel comfortable answering or withdraw from the research altogether. This interview will take about an hour of your time to respond to the questions.

Part 1: Demographic characteristics

1. Age of the respondent -----

2. Marital status of the respondent

1. Single 2. Married 3. Divorced 4. Widowed

3. The education level of the respondent

1. Not read and write 2. Grade 1 – 4 3. Grade 5 – 8 4. Grade 9 – 12 5. Diploma and above

4. Do you have family under your support?

1. Yes 2. No

4.1. How many family members do you have? _____

4.2. Do you have children?

1. Yes 2. No

4.3. How many children do you have? _____

Part II: Socio-economic factors

5. why you being sex worker? (Multiple responses are allowed)

- 1. Migration
- 2. Poverty
- 3. Women trafficking
- 4. Unplanned pregnancy
- 5. Lack of job experience
- 6. Divorced family
- 7. sexual abuse

6. Do you have additional income sources? (Multiple responses are allowed)

- 1. No
- 2. Beauty salon and spa
- 3. Domestic work
- 4. Waitress
- 5. Office work

6. Other (specify): _____

7. Your estimated daily income? -----

8. Do you participate in social networks? (Multiple responses are allowed)

- 1. No
- 2. Iddir
- 3. Ecobe
- 4. Mahber
- 5. Other (specify): _____

9. If you participate in social networks, what common benefits obtained from participating in those social networks? (Multiple responses are allowed)

- 1. Financial support
- 2. Moral support
- 3. Social support
- 4. Other (specify)_____

10. How much you spent your income for purchase food items? -----

11. How much you spent your income for purchase non-food items? -----

12. What kind of non-food items that you purchase? (Multiple responses are allowed)

- 1. Closes
- 2. School fee
- 3. loan
- 4. Supporting family
- 5. Giving for partner

6. Home rent

7. Other (specify): _____

13. Do you have any saving? 1. Yes 2. No

Part IV: COVID-19 assessment

14. Are you aware of COVID-19?

- 1. Yes
- 2. No

15. What change/s happened to your usual life because of COVID-19? (Multiple responses are allowed)

1. Staying at home 2. Lost employment/job 3. Displaced 4. Reduced income

5. No change 6. Other (specify): _____

16. Any change in your income source because of the Coronavirus pandemic?

1. No change 2. Partially changed 3. Totally changed

17. Any adverse impact on your daily income amount because of the Coronavirus pandemic?

1. Yes, there is an adverse impact 2. No adverse impact 3. Do not know

18. Any adverse impact on your household food availability because of the Coronavirus pandemic?

1. Yes, there is an adverse impact 2. No adverse impact 3. Do not know

19. Any adverse impact on your or your household because of the Coronavirus pandemic?

1. Yes, there is an adverse impact 2. No adverse impact 3. Do not know

20. Any support from government or other organization to curb the impacts?

1. Yes 2. No

21. If your response to the above question is yes, who is supporting you or your household along with the pandemic?

1. The government 2. NGO/CSO 3. Relative/s 4. Neighbor/s 5. No support at all

6. Other (specify)_____

22. What kinds of mechanisms did you took during the pandemic for survival?

1. Loan 2. Move to family or partner 3. Taking support from others 4. Use saving

5. Selling any assets 6. Other (specify)_____

Part V: Food Security assessment

Question #1

Table 1: Household Food Insecurity Access Scale (HFIAS) Generic Questions

	Questions	0 = No 1 = Yes	How often did this happen? 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)
1	In the past four weeks, did you worry that your household would not have enough food?		
2	In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?		
3	In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?		
4	In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?		
5	In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?		
6	In the past four weeks, did you or any household member have to eat fewer meals in a day because there was not enough food?		
7	In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?		

8	In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?		
9	In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?		

Question # 2

Table 2. Food Consumption Score (FCS)

	In one week (7 days) did you consume this Food groups?	If you consume Use numbers 0 – 7 to answer number of days
1	Main staples (Maize, maize porridge, rice, sorghum, millet pasta, bread and other cereals and Cassava, potatoes and sweet potatoes, other tubers, plantains)	
2	Pulses (Beans, Peas, groundnuts and cashew nuts)	
3	Vegetables (Vegetables, leaves)	
4	Fruits	
5	Meat and fish (Beef, goat, poultry, pork, eggs and fish)	
6	Milk (Milk yogurt and other diary)	
7	sugar (Sugar and sugar products, honey)	
8	Oil (Oils, fats and butter)	
9	Condiments (spices, tea, coffee, salt, fish power, small amounts of milk for tea)	

Question # 3

Table 3. Consumption Coping Strategy Responses (CSI)

	In the past 7 days, if there have been times when you did not have enough food or money to buy food, how many days has your household had to:	Number of days out of the past seven: (Use numbers 0 – 7 to answer number of days; Use NA for not applicable)
1	Rely on less preferred and less expensive foods?	
2	Borrow food, or rely on help from a friend or relative?	
3	Purchase food on credit?	
4	Consume stock held for next season?	
5	Send household members to eat elsewhere?	
6	Send household members to beg?	
7	Limit portion size at mealtimes?	
8	Restrict consumption by adults in order for small children to eat?	
9	Reduce number of meals eaten in a day?	
10	Skip entire days without eating?	

THANK YOU!

Focus Group Discussion

Dear respondent,

My name is Gelila Tesfaye and I am MSc student in Addis Ababa University college of Development studies. This questionnaire's main objective is to Conduct a Study on the impacts of COVID-19 lockdown measures on the food security statuses of sex workers in Addis Ababa, Ethiopia. The study targeted to generate evidence on the Impact of COVID-19 on food security statuses of sex workers. Therefore, your responses to the questions are valuable and will be held in utmost confidentiality to be used only to analyze this research. If you accept participating in this research, you will be doing so voluntarily. You are also free to refuse to give ideas in case you do not feel comfortable and free to withdraw from the discussion anytime you want. This discussion will take about an hour of your time.

1. Number of the discussants: _____
2. Would you please discuss the overall impacts of the Coronavirus pandemic in Ethiopia?
3. Do you think that Coronavirus pandemic have adverse impact on livelihood of sex workers? what kind of impacts?
4. Would you discuss changes happened on the daily life of sex workers because of the Coronavirus pandemic?
5. Would you discuss about the household food security statuses of sex workers during the pandemic?
6. Would you discuss changes happened on the livelihood statuses of them?
7. Would you discuss the of mechanisms sex workers adopted during the pandemic for survival?
8. What specific recommendations do you have to protect sex workers from food insecurity during this Coronavirus pandemic, and after this pandemic
9. Who should be proper stakeholders and partners to protect women in the sex work from food insecurity during this pandemic?
10. Any more comments related to sex workers livelihood and food security status and COVID-19 impacts.

THANK YOU!

Key Informant Interview

Dear respondent,

My name is Gelila Tesfaye and I am MSc student in Addis Ababa University college of Development studies. This questionnaire's main objective is to conduct a Study on the impacts of COVID-19 lockdown measures on the food security statuses of sex workers in Addis Ababa, Ethiopia. The study targeted to generate evidence on the Impact of COVID-19 on food security statuses of sex workers. Therefore, your responses to the questions are valuable and will be held in utmost confidentiality to be used only to analyze this research. If you accept participating in this research, you will be doing so voluntarily. You are also free to refuse to give ideas in case you do not feel comfortable and free to withdraw from the discussion anytime you want. This discussion will take about an hour of your time.

1. Would you please discuss the overall impacts of the Coronavirus pandemic in Ethiopia?
2. Do you think that Coronavirus pandemic have adverse impact on livelihood of sex workers?
What kind of impacts?
3. Would you discuss changes happened on the daily life of sex workers because of the Coronavirus pandemic?
4. Would you discuss about the household food security statuses of sex workers during the pandemic?
5. Would you discuss changes happened on the livelihood statuses of them?
6. Would you discuss the mechanisms sex workers adopted during the pandemic for survival?
7. What did you do for those social groups during the pandemic?
8. What specific recommendations do you have to protect sex workers from food insecurity during this Coronavirus pandemic, and after this pandemic
9. Who should be proper stakeholders and partners to protect women in the sex work from food insecurity during this pandemic?
10. Any more comments related to sex workers livelihood and food security status and COVID-19 impacts.

TH ANK YOU!