THE SOCIAL STRUCTURE OF CUT FLOWER INDUSTRY: A COMPARATIVE SURVEY OF WORKERS WELFARE IN KENYA

BY

KABIRU JOSEPH GITHUI

A Thesis submitted in fulfillment of the requirements of the Degree of Doctor of Philosophy in Sociology in the Department of Sociology and Social work, University of Nairobi

February, 2018

DECLARATION

I hereby declare that this is my own original work and has not been submitted in this or any other University or Institution of higher learning for award of a degree or any other qualification.

KABIRU JOSEPH GITHUI
C80/92981/2013

Signature: ----------

Date: ----------

This thesis has been submitted for examination with our approval as the University supervisors.

Prof. Paul Nyaga Mbatia
Signature: ----------

Date: ----------

Prof. Edward Kareria Mburugu
Signature: ----------

Date: ----------

DEDICATION

I dedicate this work to my dear wife, Audrine Ingato Masingu, for her great support and sacrifice during the duration of this study. To my children, Antronella Wambui, Allan Kabiru and Annacletus Muthoni, for their patience with me. To my Mother, Monica Wambui and my Late Father, Joseph Kabiru Kimondo; you were the source of inspiration and encouragement during my study.

ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to my supervisor, Professor Paul Nyaga Mbatia, who made immense sacrifice, in spite of his busy schedule at Multi-Media University of Kenya, where he is a Deputy Vice Chancellor in charge of Academic Affairs and Innovation. Professor Mbatia was always available to guide me when I needed him. Professor Mbatia was patient and always ready to give his insights whenever I faced challenges at all levels of this study.

I wish to also thank my supervisor, Professor Edward Mburugu, who encouraged and supported me through all the stages of this study. Professor Mburugu was always readily available to support me during data collection and the writing of the thesis. Professor Mburugu's friendly and amiable personality inspired me during my study.

I wish to express my gratitude to Professor Enos Nthia Njeru, the Principal of the College of Humanities and Social Sciences (CHSS), who, notwithstanding his busy schedule, also found time to read, edit, and share useful comments on my work even on weekends and public holidays.

I also wish to appreciate Professor Ephraim Wachira Wahome, who dedicated his time to read my work and share invaluable insights that enriched it. I wish to thank Professor Germano Mwiga Mwabu, of the School of Economics, for his enormous support in multivariate analysis.

I wish to express gratitude to my research assistants, and in particular, Rebecca Wairimu Kamau, for guiding and interviewing workers during the data collection process in the Naivasha, Thika and Nanyuki. I also thank Jane Ngige, the Chairperson of the Kenya Flower Council (KFC), for facilitating my access to valuable data on cut flower industry. Finally, I appreciate Samuel Wachira Gatheru of Arctic Computer Shop, for offering computer software support services during the study.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

As suggested in the title "The social structure of cut flower industry: A comparative survey of workers' welfare in Kenya", this study focuses on the welfare of workers in the cut flower industry. The study pays special attention to mechanisms that exist to cushion the workers' welfare in the cut flower industry. Specifically, the study looks into the issue of wages and whether or not such wages are commensurate with the workers' efforts within the context of the productive relations. The study also looks into attendant impacts of the state and non-state actors on the workers' welfare. Further, the study explores the ownership of the cut flower by Multinational Companies (MNCs) as well as the local capital ownership and how these influence the mode of production with regard to the workers' welfare dynamics. An additional dimension of the study focus has to do with the certification of cut flower farms by local and international agencies and how they also relate to the overall exchange dynamics and outcomes.

To achieve the aim of this study, a comparative survey of 358 workers was conducted in three cut flower regions in Kenya - Naivasha, Nanyuki, and Thika. The major data collection techniques and instruments included survey, personal interviews guided by a questionnaire, key informants interviews based on an unstructured guideline for key informants and focus group discussions guided by group discussion guide, all following an extensive literature review. The data collected was processed using the Statistical Package for Social Science (SPSS) and Stata statistical programmes. Thereafter, the data was analyzed progressively at the univariate, bivariate and multivariate levels.

Key findings of the study show that workers in the cut flower industry were literate and skilled, this study established that almost half of the workers (48.9%) had attained secondary education and that at least 40% had technical skills, which to a large extent were not relevant to their work. Almost 70% of the workers were employed on permanent basis, though with low retention rate; almost 60% had been engaged in employment for a period of less than four years and majority (82.4%) worked for eight hours a day. The typical low cadre workers earned an average wage of KShs. 8,600, slightly lower than the government legislated minimum wages in the general sector (KShs. 10,954) and the computed living wage (KShs. 18, 000-KShs. 21, 545). The workers in cut flower industry are thus part of the working poor in the country. Surprisingly, (81%) of the sampled did not engage in other income generating activities.

At the bivariate level of analysis, a cross-tabulation of ownership of the farm and workers' wages showed that the locally owned farms paid better wages than farms owned by the MNCs. A cross tabulation involving the status of certification of a farm showed that 36% of the workers perceived that their working conditions as "at least poor" in non-certified farms were five times higher than the percentage of workers (7.2%) in the certified farms. Certification thus, tends to enhance workers' welfare. Correlation was also undertaken regarding the study's dependent variable (workers' welfare) and each of the selected independent variables. The state effectiveness in enhancing workers welfare was found to have the highest influence with a modest value of $r = +0.46$. The findings of this study thus affirm that workers' wages enhance their welfare though moderately at $r = +0.35$.

At the multivariate level of analysis, the study measured the individual and combined effects of the study's five independent variables on the study's dependent variable (workers' welfare) using probit regression. Among all the five factors/regressors the best one in determining workers' welfare was the state effectiveness. Indeed, a unit change on state effectiveness, leads to a probability of change on workers' wellbeing by 33%. Further, the probability of workers being better off from a unit increase with certification of a cut flower farm improves by 27%. Surprisingly, a unit increase of trade union effectiveness decreases the probability of higher welfare by almost 10%. The study in conclusion, observes that at an average wage of KShs. 8,600, the workers in the cut flower industry are part of the working poor in Kenya. Regarding the findings that at least 9% of the workers in the cut flower farms were paid wages that were lower than the legislated minimum wages, the recommendation also called on the state through its oversight role to ensure that labour policies are strictly adhered to.

LIST OF ACRONYMS

CSOs	Civil Society Organizations
CSR	Corporate Social Responsibility
FPEAK	Fresh Produce Exporters Association of Kenya
GoK	Government of Kenya
HCDA	Horticultural Crops Development Authority
IFPRI	International Food Policy Research Institute
ILO	International Labour Law
KFC	Kenya Flower Council
KHRC	Kenya Human Rights Commission
KPAWU	Kenya Plantation and Agricultural Workers Union
KRA	Kenya Revenue Authority
KShs	Kenya Shillings
MNCs	Multinational Companies
MPS	*Milieu Programma Sierteelt*
NGOs	Non-Governmental Organizations
OLS	Ordinary Least Squares
RoK	Republic of Kenya
TWCs	Third World Countries
WWW	Working Women Worldwide

CHAPTER ONE: INTRODUCTION

1.1 Background Information

Cut flower farming in Kenya can be traced to the 1950s, first cultivated by the white settlers who engaged in horticulture as articulated by Swaynnerton (1954). Three reasons could explain why the industry was dominated by the colonialists. First, African farmers lacked the capacity and capital for horticulture production. Second, Africans viewed the farming of cut flowers as geared towards a product to be consumed exclusively by the colonialists. Thirdly, it was part of modernization; a culture which was new to the Africans. Consequently, as the white settlers continued to produce cut flowers, the policies guiding the production were formulated. These policies were biased to favour the European farmers who happened to be the owners of capital (Colony and Protectorate of Kenya, 1962). The employees working in the white settlers' cut flower farms were the unskilled Africans. They worked under the agricultural policies made by the colonialists who had special interest in the industry which could have influenced their working environment. Thus, this study is an attempt to examine the dynamics and structure of the cut flower industry in Kenya that explain the perceived exploitation of workers.

Cut flower production in Kenya was commercially initiated in 1960s by European settlers. In 1970, there was evidence of flower production around Kinangop District (Matsumoto, Mano & Suzuki, 2012). However, a marked increase in the value of cut flowers was not felt till 1980s, when demand for increased foreign exchange became more competitive (Hughes, 2001). The first three cut flower producing Multinational Companies (MNCs) were Dutch owned and located at Naivasha. They were Oserian, Sulmac, and Sher agencies (Whitaker & Kolavalli, 2006). Subsequently, more MNCs joined the industry in production of cut flowers in Kenya and enjoyed a number of advantages. Consequently, some of these advantages were: First, they had support of the then government, which provided a policy framework that favoured cut flower production. Second, an ideal tropical climatic condition in Kenya which is favourable for cut flower production and development. Third, they had both human and financial resources needed in the industry.

In addition, Pines and Meyer (2005) argue that MNCs shifted to developing countries to maximize profits, since there was access to cheap labour. Henceforth, Africans were the source of labour in the cut flower industry. Therefore, the industry created jobs for the unskilled Africans and supported their livelihood. Since then, there are approximately 500 flower farms in Kenya, with 76% of them concentrated in foreign-owned flower farms around Lake Naivasha in the Rift Valley (Moore, 2010). Despite the negative media coverage of the working environment for labour in the cut flower industry in Kenya, the industry has continued to grow and expand. In view of the negative perception of the industry by media, this study sought to establish the extent to which the workers' welfare is protected by the state in Kenya.

To date, Kenya is one of the most successful cut flower exporters in the world and a strong competitor on the European cut flower market (Moore, 2010). The largest exporters of cut flower are Kenya and Colombia (Riisgaard, 2011). Other countries which produce cut flowers are Ecuador, Israel, Netherlands, New Zealand, Italy, Morocco, Zimbabwe, Zambia, South Africa, Uganda, and Ethiopia. Among all these countries, Kenya is the largest exporter in Africa with 55% of the total exports from Africa (Muthoka, 2008). To be specific, the industry has registered an increase in export volume from 10, 946 tons in 1988 to 86, 480 tons in 2006; 120, 220 tons in 2010 and 136, 601 tons in 2014 (KFC, 2015). While supporting views on this increase, Barrientos (2014) observes that Kenya's growth in the volume and value of flower exports rose from 3.6% to 6.4% of world exports between 2001 and 2012.

This study explored whether the massive increase in production is commensurate with the working environment of labour in the industry. Attributed to Karl Marx, exploitation is a means to an end where it is reinforced by the pre-existing conditions of the capitalist system (Marx, 1977). Thus, the returns of export accrued by capitalists fail to trickle down to the lives of the workers. Further, Marx avers that exploitation occurs when there are injustices and inequalities against employees committed by the owners of capital (Kelso & Adler, 2000). Marx's conception of the state does not provide a remedy for the exploited. This is evidenced by Marx assertion that the state due to work closely with the

bourgeois for its economic viability which negatively affects workers (Marx & Engels, 1972). Conversely, Ghani and Lockhart (2008) argue that the state has a role in protecting the workers against exploitation by owners of capital. Therefore, this study sought to establish the extent to which the workers' welfare is protected by the state.

The expansion of the cut flower industry has been evidenced in farms owned by the MNCs and by local entrepreneurs. Bolo (2006) argues that the industry has been experiencing growth in acreage, volume, and value. The study by Bolo (2006) was a cluster case study carried out through secondary review. It focusses on market, technology, consumer and completion as a key component of production in Navasha utilized by cut flower farms which helps in expansion of the industry. This expansion varies between MNCs and local entrepreneurs. The latter lack comparable technology, capital, and market but thrives, while the former has considerable access to these resources (Rikken (2012). However, both entities have been criticized for having unfavourable working environment for workers (Alli, 2008). Bonarriva (2003) argues that the role of MNCs is not only developing the GDP of the country, but also building on their profits. This view is supported by Moore (2010:72) who avers that the MNCs in developing countries like Kenya make enormous uncontrolled profits as a result of various discrepancies between the apparent huge earnings from the flower industry for Kenya and the reality on the ground in terms of gains for the Kenyan people". Therefore, developing countries have been criticized for failing to protect the workers from the exploitation by the capital outfits. Hence, this study explored the contribution made by the MNCs and local entrepreneurs in improving workers' welfare. Generally, the cut flower industry has been condemned by scholars for paying low wages to its employees, wages that have not been commensurate with the workers' output. Valerie (2011) and Smith *et. al.* (2004) argue that the workers' welfare in cut flower farms has been unsatisfactory despite the high output realized due to workers' input.

According to Marx and Engels (1969), the concept of exploitation in Marxist theory is seen to apply where workers are paid less value than what they create, while the owners of capital take massive profits. Consequently, the social relations between the workers

and owners of capital deny the workers' enjoyment of their hard work, following the unfair distribution of profits thus alienating workers from enjoying the surplus. In such a scenario, who is supposed to offer the protective mechanisms of labor from the alienation from the surplus? This study endeavored to establish the role of state in protecting its citizens in the cut flower industry.

Some scholars have argued that exploitation of labour in the cut flower industry has been practised under the guise of capitalism, thus allowing the owners of capital to maximize accumulation of capital at the expense of the workers (Alli, 2008; Valerie, 2011; Dolan, 2005). This view is augmented by Andrees and Belser (2009), who maintain that the model of exploitation as practised today forms part of a historical pattern that started with slavery, thus only the timing has changed. However, the observation does not spell out the role of the state in taming exploitation of workers in the cut flower industry, which is a consequence of capitalism. According to Marx and neo-classical theorists of income distribution, exploitation occurs when workers get less than the value of what they produce (Elster, 1978).

The perceived exploitation had been practiced under capitalism, where the capitalists have been using workers as a means to attain maximum surplus, thus alienating workers from standard livelihood (Farganis, 2014). Marx focuses on exploitation, thus he does not address other strengths of capitalism like growth of the industry. But if there is exploitation in cut flower industry, this study helps to understand its nature, how it occurs or is being perpetuated, and finally how it affects the workers' welfare in the industry. Previous studies have reported of the existence of the exploitation in the industry perpetuated by the owners of the cut flower farms on workers by exposing them to low wages and inhumane working conditions (KHRC, 2012; Valerie, 2010).

McDermott (1997) presents exploitation as a systematic imposition of economic, political, and social restrictions on one group by another within the same nation or locality. Accordingly, exploitation has continued even in the present age though to a greater extent in developing countries unlike in the developed world like France and

Canada, where the working days and minimum wages are regulated by the state (Ghani & Lockhart, 2008). Thus, this study sought to reveal whether or not the exploitation continues in the industry.

As we endeavor to explain the situation of working environment of labour in cut flower industry, we can draw from the Marxist view that exploitation occurs in all capitalistic societies, whether tamed (controlled) or pure (uncontrolled) capitalistic societies (Elster, 1978). However, there is low level of exploitation in tamed capitalist societies due to presence of institutionalized mechanisms in comparison with purely capitalistic countries, in dealing with non-parity working environment of labour (Migdal, 1988). In pure capitalistic societies, the owners of the capital work exclusively towards maximization of profits without intervention of the state or other state oriented bodies, or even civil groups. However, some state practice mixed capitalism where at some point the state intervenes, though there are gaps of exploitation by the owners of capital like in Kenya. In pure capitalism, workers can only hope of an intervention by non-state actors whereas in mixed capitalism workers can only hope for intervention by other actors only when the fails to deliver.

As a result, the workers register with a labour union or voice out necessary information to NGOs, CBOs and trade unions with an aim of protecting their rights (Perry, 2012). However, there have been situations where workers have failed to work closely with labour unions. In some situations, the management of the farms has been the key hindrance in workers' participation in labour unions, whereby they are threatened with loss of employment (Miller, 2012). But even worse still is a situation where workers fail to see the benefits of joining the labour union (KHRC, 2012). In contrast, Fashoyin (2010) argues that the trade union, human rights and NGOs have exerted pressure in fighting for the rights of the workers. Therefore, this study clarifies the contradictory information given by scholars on the role played by non-state actors on the workers' welfare, by evaluating the extent to which such actors have impacted on the welfare of workers.

The cut flower industry has contributed to foreign exchange earnings in Kenya due to the massive exports made. Scholars like Riisgaard (2011), English (2007), and Dolan *et. al.* (2003), continue to criticize the industry for unfair working environment for labour, where the wages of workers and working conditions have been noted to be low and stagnant. It is unclear whether or not this anomaly where workers are not compensated proportionally for the hours worked, is exclusively in the cut flower industry or in agricultural sector as a whole. This is illustrated in the 2015 basic minimum consolidated wages for workers in general, and in the agricultural sector in particular. The minimum wage for un-skilled employee in general sector was US $105.5 while in agricultural sector it was US $54.3, less 50.4% (RoK, 2015). In absolute terms, the minimum wage for worker in agricultural sector is half compared to the workers in general sector. Currently, most of the "workers in the cut flower farms in Kenya earn between *KShs. 5257 (US $58.19) and KShs. 5485 (US $60.94) per month"* (Leipold & Morgante, 2013:15).

This was slightly above the global poverty line of US $ 1.90 per day in 2015. It is important to note that Kenya's population living under US $ 1.90 a day had in 2005 increased from 33.6% to 39.9% in 2014 (World Bank, 2016:2). Therefore, the wages for workers in cut flower industry is above that paid to their fellow workers in agricultural sector by almost US $6 per month. However, it is the government which lays down the minimum wage orders for workers in agricultural sector where cut flower employees are deployed. Nevertheless, there have been variations between remuneration for workers in the cut flower industry in comparison with the general sector, which has stagnated for a period of time, though both categories of employees work in the same locality with same socio-economic characteristics (GoK, 2012). Therefore, this study situates the cut flower industry at a vantage point in reviewing the working environment for workers rather than demonizing the industry. The study also seeks to establish the role of the state in protecting workers' welfare in the cut flower industry.

There have been many claims of imbalanced workers' welfare, more specifically on wages and working conditions in the cut flower industry. Among the claims raised regarding the workers in the cut flower industry is that their wages are low and working

conditions are poor (Freeman *et al*, 2007; Dolan *et. al*., 2003; Smith *et. al*. 2004). Other scholars have supported these claims, arguing that workers are exposed to wanting working environment where they are paid slave wages, live in terrible conditions, and face such inhumane employee relations including harassment by supervisors, unfair dismissals, and lack of rights to join trade unions (Dolan, 2008). Therefore, the knowledge in the public domain is that workers' welfare in the cut flower industry in developing countries like Kenya, face unfavourable working environment, exemplified by poor pay, long working hours, and exposure to such health hazards as pesticides (Alli, 2008; Dolan, 2005; Dolan, 2005a). In contrast, Riisgaard and Gibbon (2014) found in their study that there had been significant improvements in working conditions and labour relations (holiday, maternity leave, sick leave, pensions, and insurance) against the claim made of decline of monetary wages of workers between 2002 and 2011. Therefore, this study endeavored to establish the workers' welfare situation in the cut flower industry. A key concern was whether the remuneration in cut flower industry is commensurate with workers' welfare.

Workers in cut flower industry have been fighting for their rights through protests and strikes[1] (Moore, 2010). There has been an increase of workers' strikes in the cut flower farms in Naivasha, Kenya, as workers agitate for pay increment and better working conditions especially from 2008-2010 (Odhong' & Omolo, 2014). The cut flower farm workers have been demanding better wages, good labour relations and improved working conditions[2]which form working environment for labour. The number of strikes by workers in the cut flower industry in the past, especially in 2009, 2010, and 2011, were signs of discontent among workers.

However, there has been a wave of strikes in other sectors like health, education meaning that strikes do not always mean there is pre-existing exploitation. According to Fashoyin (2010), the number of strikes decreased from twenty-eight strikes in 2007/2008 to

[1]On 2nd August 2011, "over 200 workers protested accusing their employers of paying peanuts and making them to work for long hours while earning KShs. 110 per day and a house allowance of KShs. 600 per month (*The Standard Newspaper* 2/08/2011).

[2]Opinion in the *Daily Nation* 9/12/11, display a conflict in the cut flower industry between the employers which has existed for a long period.

twenty-five in 2009, where 60% of these occurred in agriculture, manufacturing, and construction. In analyzing the two observations by Fashoyin (2010) and Odhong' and Omolo (2014), it is clear that workers in the cut flower industry had shown their discontent on their welfare through strikes. Perry (2012) points out that the state is obliged to provide an environment conducive to peaceful economic activity for both workers and owners of capital. In this regard, this study focused on remuneration of workers in cut flower industry in order to establish the discontent of workers as expressed through the strikes.

Many developing countries strive to attract MNCs in cut flower industry by offering favorable environments for doing business. Meleseh and Helmsing (2010) argue that states lay down policies like Foreign Direct Investment (FDI), which are favorable to MNCs and as a result give unfair competition to local companies. This is due to the soft conditions given to MNCs by developing countries which are aimed at creating employment to local citizens. But on the contrary, scholars have been interpreting it as an opportunity created for the MNCs to exploit the workers due to their monopoly in the sector, where they set common standards for wage payment which frustrate the workers, hence making them vulnerable (Meleseh & Helmsing, 2010; Resnick & Wolff, 2003). Thus, according to Voice, Exit and Loyalty Theory by Hirschman (1970), workers can either decide to take any of the three options which are voice, exit or exit options depending on the working environment exposed by the owner of capital. Therefore, when workers are exploited by the owners of the cut flower farms, they may decide to take the option of loyalty to the current flower farms as they are not sure of getting favourable working environment elsewhere. Therefore, how does the ownership of capital make a difference on workers' welfare in the cut flower industry?

Cut flower market is competitive and hence calls for a producer country to make stringent strategies to retain it. The main markets of cut flowers in Kenya include the European Union (EU), United States of America (USA), Japan, India, Russia, and China where the competition is stringent (Rikken, 2012; Laibuni *et. al.*, 2011). As the industry continues

to grow, the consumers of cut flowers demand high ethical standards in production of the cut flowers, which leads to the birth of the accreditation agencies.

Such agencies have laid down codes of practices which focus on the standard of workers' welfare, community support, and environmental awareness (Opondo, 2008; Leipold & Morgante, 2013). Though entry to market is not restricted, compliance to certification codes has been a key prerequisite for entry to the market (Laibuni *et al*, 2011). Logically, the increase of market outputs presupposes improvement of workers' welfare and therefore existence of accreditation agencies. But is this the case in cut flower industry, where it is presumed a general compliance to the market requirements? Therefore, if this is the scenario, to what extent has the market oriented agencies succeeded in instituting ethics vis a viz protective mechanisms for the workers welfare in the industry? Therefore, this study endeavored to establish how the certification of codes as implemented by professional accreditation agencies has affected the welfare of workers in the cut flower industry.

1.2 Problem Statement

Studies focusing on cut flower industry in Kenya suggest continued exploitation, where workers have been experiencing unfavourable working environment of labour, including low wages, poor working environment, low safety, health standards, and exposure to environmental hazards and work-based accidents (English, 2007; Alli, 2008; Dolan, 2005a). Yet, Ingham (2013) argues that state involvement should be kept to the minimum, to avoid partisanship with either capitalists and/or workers. The situation has led to continued exploitation of labour as the capitalists try to maximize on profits at the expense of improving working environment for workers. Therefore, this study attempted to investigate the extent to which the workers' wages are commensurate with the workers' welfare expectations in the cut flower industry.

Whereas economic capitalism has been credited with creating wealth, it is discredited for exploitation of workers. This leads to domination of the under privileged by the privileged groups, as well as inequitable distribution of opportunities (Freeman *et. al.,*

2007). Mohammad *et. al.* (2010) note that whereas the workers in the cut flower industry are poorly paid, there has been an increase in pricing and the quantity of cut flower exported from Kenya since 2002 (178%).

This scenario is in tandem with the Marxist theory's tenet that the increase in production does not necessarily result in better remuneration, good working conditions, or friendlier labour relations for workers – which are components of workers' welfare (Farganis, 2014). There are other factors in play, like increase of profitability and competition among the firms in capitalistic mode of production used in cut flower industry. But what are the dynamics of exploitation as portrayed in cut flower industry?

The state has been mandated in setting the minimum wages of workers both in general and agricultural order. In agricultural order the daily rate for unskilled workers where cut flower industry in Kenya is housed was KShs. 228.30 (US $2.2) in 2015. This was slightly above two dollars per day, in comparison with KShs. 527.10 (US $5.1) paid to workers in general order (RoK, 2015). Further, it is two times the amount paid in the general order. Even though, unskilled workers in cut flower industry are better remunerated (US$ 59-US$94) than their counterpart in agricultural sector (KShs. 5,436.90 approx. US$54.3) their wages is far much lower than in general sector (KShs. 10,954.70 approx. US$110) (Working Women Worldwide (2013). This is despite the unskilled workers either from the general or agricultural sectors working in the same geographical environment where they incur the same livelihood expenses. It is noted that workers' Collective Bargaining Agreements (CBAs) that form the basis of workers welfare in all industries are centered on a legally set minimum wages set by the state. Therefore, this study endeavored to establish the extent to which the state has protected the workers welfare.

Valerie, Adrienne, and Joachim (2005) in their study on assessment of corporate codes of practice in the farms noted that workers in cut flower industry were not conscious of labour codes due to lack of sensitization. This meant that they were not even aware of their presence since they are not registered as members, especially in trade unions like

The Kenya Plantation and Agricultural Workers Union (KPAWU) where the workers who were registered were 17% (Leopold & Morgante, 2013). Further, non-state actors like labour union, civil society and NGOs are involved in sensitizing workers on labour rights as enumerated in labour codes as argued by Riddselius (2011).

However, the awareness of these codes is not guaranteed in impact assessment of codes of practice, which covers social and environmental provisions. Scholars have attributed lack of awareness of these codes in Kenya to the breach of workers' rights (Dolan, 2005a; Valerie, 2011; Cranford, 2005). KHRC (2012) argue that NGOs and labour unions play an advocacy role to improve the working environment of the workers in the industry. But has this been the real scenario experienced in the cut flower industry? Therefore, this study attempted to establish the presence, role, and influence of the non-state actors on the working conditions of workers in cut flower industry.

Ownership of capital in cut flower industry in Kenya is dominated by MNCs with a few local entrepreneurs (Brown *et. al*., 2003). In support of this view, Moore (2010) writes that there are approximately 500 flower farms in the country, and that 76% of the flower farms are owned by MNCs. Both MNCs and local entrepreneurs are known to prefer locating their firms at places where they can maximize profits, which is the key objective of laying the capital. According to Marxist theories generally, the owners of capital (both the MNCs and local entrepreneurs) exploit the wages where the workers receive less value than what they create in order to realize the objective of putting their capital into business (Larsen *et. al.,* 2014). But to what extent does the ownership of capital determine the working environment for workers in the cut flower industry? Different scholars (Dolan 2005a; Alli, 2008) have tried to answer this question by observing that the cut flower industry in Kenya is conducive for cut flower business but fail to address whether the ownership of capital affects the workers welfare in the industry.

The cut flower markets have attached a lot of importance to the labour ethics in cut flower production, health, and environmental issues which have affected the cost of production (Laibuni *et. al*., 2012). The accreditation agencies have put in place codes to

be followed in production of the cut flowers. Despite, the industry collecting massive profits there have been documentation of degradation of the workers' welfare which has been wanting especially on wages and working conditions like use of Physical Protective Equipment (PPE) (Opondo, 2008; Riddselius, 2011; Leipold & Morgante, 2013). Nevertheless, what impact has the compliance to the certification codes had on the workers' welfare in the industry?

Therefore, this study attempted to establish the extent to which the protective mechanism exists for labour in the cut flower industry in Kenya, by addressing the following research questions:

1) To what extent are the workers' wages commensurate with the workers' expectations in the cut flower industry?
2) To what extent is the workers' welfare protected by the state in the cut flower industry?
3) What is the contribution of non-state actors (e.g trade unions, civil society) to the welfare of workers in the cut flower industry?
4) How does the ownership of capital (MNCs / local entrepreneurs) influence workers' welfare in the cut flower industry?
5) How does the market structure of cut flower industry influence workers' welfare in the cut flower industry?

1.3 Objectives of the study

The broad objective of this study was to investigate the extent to which protective mechanisms exist for labour in the cut flower industry in Kenya. On the specific objectives, the study set out to:

i) Assess the extent to which wages commensurate with the workers' welfare expectations.
ii) Establish the extent to which the workers' welfare is protected by the state.
iii) Establish the contribution of the non-state actors (e.g trade unions, civil right groups) to the welfare of workers.
iv) Establish the effect of ownership of capital (MNCs/local entrepreneurs) on workers' welfare.

v) Establish the impact of market oriented professional accreditation agencies on workers' welfare.

1.4 Justification of the study

A study on cut flower industry in Kenya is considered timely for five reasons. First, the cut flower industry is regarded as an appropriate opportunity for employment and strategic foreign revenue earning in the country. The industry has demonstrated a huge potential in generating jobs by supporting half a million people, and has potential to employ 40,000 to 50,000 people annually (English, 2004; Opondo & Hale, 2005). The industry opens opportunities for the unskilled labour. Further, it "supports the livelihood of 50,000 to 60,000 people directly and 500,000 indirectly" (Valerie, 2011:64). Thus, there is need to pay attention to its large impact and magnitude in terms of its contribution to the economy, while taking stock of the lessons learnt especially with regard to how workers relate to employers. This study addresses the factors and conditions relating to how the Kenyan state addresses the welfare of workers in the cut flower industry. Past studies on the cut flower industry present it negatively. In previous years, most studies have portrayed the industry as one which exploits workers and whose working conditions are depressed. Yet, more and more Kenyans aggressively seek employment in the sector. Accordingly, this study is an attempt to examine the dynamics and structure of the sector by revealing both the opportunities created within it as well as threats to the welfare of workers.

Second, Kenya's economy is dependent on agriculture. Cut flowers account for about half of Kenya's fresh horticultural exports and the industry provides direct employment to an estimated 50,000 Kenyans with a further 70,000 employed in related industries (Dolan, 2008). The industry has been contributing to Kenya's economy as a foreign exchange earner. Accordingly, it is an important sector of the Kenyan economy, warranting a sociological inquiry. The latter should expose the existing tensions between workers and the owners of capital and attempts to contain the tensions at minimum levels.

Third, the study adds to the pool of knowledge on workers' welfare and related issues in cut flower industry. Little has been documented on workers' welfare in cut flower industry from a sociological perspective. Therefore, the study complements the scope of knowledge on wage, labour relations, and working conditions in the cut flower industry. The study also constitutes a serious attempt to undertake an investigation of cut flower industry from social science perspective. The study's title "the social structure in cut flower industry" lays the basis of the sociological inquiry where the industry is made up of groups (stakeholders) who are interlinked and have to work together for a good working environment. The aspects which have been addressed from sociological perspectives includes the ownership of capital in respect to workers in the industry, effects of wages on workers' welfare expectations, the contribution of non-state actors in workers welfare and finally, the effects of market on workers welfare.

Fourth, the study contributes to theory and methodology. Past studies have faced serious challenges in penetrating the cut flower farms which is highly secretive and protected by the owners of the cut flower farms. In a holistic approach, the study has used a mix of strategies like to overcome past barriers of getting authentic information from workers. The study adopted both quantitative and qualitative approaches to reach out to workers, managers, and other stakeholders like labour unions. The study demonstrates how a sociological study can be packaged to overcome physical and administrative barriers to penetrate an industry which has been labeled as exploitative.

Fifth, the study findings will be instrumental in formulating better labour policies relating to workers' welfare between workers and owners of capital in cut flower industry. Issues of labour are dynamic and take different dimensions in structure as modernization takes place in the society. Consequently, they need to be revised to make them relevant in different social situations. Therefore, lack of revising the current policies which are surpassed by time breaches the rights of the actors especially workers.

1.5 Scope and limitations of the study

While the discourse of capitalism and labour exchange between workers and owners of capital is very wide, this study focuses on labour relations, wages, and working

conditions of workers in the cut flower industry in Kenya. The study addresses both male and female workers' welfare. Further, the study focuses on the factors and conditions which perpetuate imbalanced workers' welfare, the role of states in developing countries, capital outfits, non-state actors, and the impact of the market on workers in context of the cut flower industry. The research focused on cut flower firms and the experiences of workers in three regions, namely: Naivasha, Nanyuki and Thika. However, the study did not focus on all professional agencies. It was mainly concentrated on those agencies which are directly consulted for market of the cut flowers. The study did not focus on other workers in agricultural sector and also in horticultural sector. Further, the study limited itself to only the three regions and other farms were not considered in this study. Finally, among the three sampled regions, 358 workers were sampled in collection of quantitative data using questionnaires. In addition, 36 workers participated in collection of qualitative data by participating in focus group discussions.

1.6 Definition of key terms

Cut flower industry. This is an industry which deals with cut flowers like roses, carnations, statice, cutfoliage, carthhamus, solidaster/solidago, chrysanthemums, arabicum, trelizia, rudbeckia, gypsophilia, lilies, molucella, erynngium and tuberoses.

Poor working conditions. It is also referred as inhumane working conditions which includes; being forced to work for long hours, poor housing, being forced to work in unhealthy environment, exposure to toxic materials, lack of training on health and safety issues and lack of protective working gear.

Workers' welfare: These are the products of social relationships that emanate from the exchange between owners of capital and workers. They include wages, working conditions and labour exchange relations.

Working poor: They are workers who engaged in their place of work but whose incomes fall below the living wage as result of low wages. The income of such an individual is limited and thus can't even safe though working.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter reviews existing literature on exchange labour relations between workers and owners of capital in the cut flower industry in Kenya. It interrogates, *inter alia*, the debate on capitalism and exchange relations between workers and owners of capital in cut flower industry. The chapter is divided into two parts. The first part explores the documented evidence on the issues which have been highlighted by different scholars on exchange labour relations between the workers and the owners of capital on protection mechanisms of workers welfare. The thematic issues addressed include capitalism and cut flower production, the role of the state, the contribution of non-state actors, the influence of the owners of capital and the influence of professional accrediting agencies in the cut flower industry. The literature review explores research by other scholars on the workers welfare in the cut flower industry, and exposes the gap to be addressed in this study. Therefore, this study addresses the nature and structure of the protective mechanisms that exist for labour in the cut flower industry in Kenya by critically analyzing the existing studies.

The second part of this chapter provides an exposition of theories relevant in explaining the exchange of labour between workers and owners of capital. These theories include the Marxist strands which expose the exchange of labour power and wages between workers and owners of capital. The second theory (Exit, Voice and Loyalty) focuses on the interpretation of workers' welfare, addressing the results of labour relations as one of the components of the dependent variable. Finally, social exchange theory is used to address the rationale behind the workers' welfare in the cut flower industry. The theory analyses the cost and benefits of the relationship between workers and owners of capital in the cut flower industry.

2.1.1 Conceptualization of capitalism in determination of remuneration of workers

This section exposes the effects of capitalism on workers' remuneration. It expounds on the justification of capitalism being a driver of the relationship of exchange between workers and owners of capital in the cut flower industry and its effects on workers' welfare. One of the central themes in Marxist theory is that capitalism entails exploitation of workers, as the owners of capital strive to maximize profits which form the basis of capitalism. It is a loaded concept abstracted as a mode of production that allows private ownership, though goes beyond the private ownership. Screpanti (1999:1) conceptualizes capitalism as an economic system where the control of production and allocation of capital are based on private ownership through which the surplus value is extracted using wage labour. This mode of production involves exchange of commodities where the human labour force as a commodity emanating from workers is exchanged with wages from capitalists. Thus, sociologically, capitalism is summarized by James (2004:14) as the totality of all economic activities determined by ambition to make surplus out of the invested capital. Hence, capitalism as an economic system is premised as an exchange where the labour power of the workers is commoditized and exchanged through wages. Therefore, workers sell their labour energy and are repaid with wages for their livelihood. But the wages paid by the capitalists are hardly commensurate with the workers expectations.

Capitalism is characterized by three key features: economic relations, employment contract and capital valorization, and accumulation (Screpanti, 1999:22). First, economic relations characterize the owners of capital and the workers who meet to exchange the labour energy for wages. This excludes all relationships which cannot be reduced to sales contact. In cut flower industry, the owners of capital exchange wages with the labour energy transacted by the workers. However, the wages may or may not be commensurate with all the labour power transacted by the workers. Therefore, during the transaction, the workers sell their labour power in exchange for a wage while the owners of the capital take charge of the surplus and losses made in the firm. Screpanti (1999) observes that all human relations are based on exchange of commodities where the employer buys the labour force from a worker and exchanges it with wages. The capitalists quantify the

labour force and remunerate and hence the relationship between the two continues. However, what is regularly reported of this relationship is its inherent character that promotes inequality. When the wages are not commensurate to labour power, then it leads to exploitative aspect of the relationship against the workers.

The owners of capital thus fail to adequately compensate the employees for their input as they work in the farms. Supporting this view, the Kenya Human Rights Commission (KHRC, 2012:10) notes that on average, workers in the cut flower were not compensated fully for the hours worked whereas they had worked for longer hours (12.9 hours per day) instead of eight hours per day. Thus, capitalism can be visualized as a system of capital accumulation by the owners of capital at the expense of workers, leading to unequal labour relations (Levi-Faur, 2005). However, it is not in all situations when there is an unequal exchange relation between the workers and capitalist. There have been many situations where capitalism has thrived without unequal labour relations, bringing forth economic growth and elevation of workers' livelihood. Nevertheless, capitalism also has negative effects like exploitation of workers welfare by the owners of the capital. Thus, has the capitalism in the cut flower industry in Kenya leads to unequal exchange of labour thus exploiting the workers welfare. Therefore, to what extent has the wages commensurate to workers' expectations? Thus, does capitalism lead to unequal exchange? Capitalism has both positive and negative effects on both workers and owners of capital, therefore cannot be demonized as it will lead to bias on either side.

Employment contract is the second feature of capitalism which shows both workers' and capitalists' obligation to one another (Scepanti, 1999). It stipulates the laws, customs and procedures which enumerate their social interaction. In addition, it constitutes the basis of interactions between workers and owners of the capital. The workers are obliged to offer their labour power whereas the owners of capital oversee the process and make decisions in the firm. In the cut flower industry, the owners of labour do not make decisions on the production. The owners of the capital pay the agreed wages based on remuneration that they deemed it as appropriate. However, this wage has been criticized negatively in the cut flower industry as low therefore not commensurate with the labour power of the

workers (KHRC, 2012). Demonization of workers' wages in the cut flower industry in Kenya has led to stigmatization of the industry with low wages, even lower than workers' wages in the other agricultural and non-agricultural sectors, which may not be the case. As a result, the criticism of the workers' wages in cut flower industry has been done without proper justification.

Finally, the third feature of capitalism is capital valorization and accumulation. Varolization is creating value of what is produced while accumulation leads to amassing what has been produced. Thus, the profit extracted from production process should be used for the purpose of expanding the capital which alienates the workers from their working expectation (Scepanti, 1999). The profits are regulated to serve as capital accumulation hence serving the objective of the capitalist at the expense of the labour force from workers. However, this situation has not been always the same as there are firms which use the profit to improve workers welfare. The quantity of labour power is measured in units of labour time which on average is deemed necessary by capitalists to produce a commodity. Capital accumulation, according to Marx, must exist for capitalism as a system to survive; therefore a threat to accumulation is a threat to capitalism (Popper, 1966). This condition alienates the workers from bringing forth any sort of idea especially ideas which favours workers' welfare in exchange of labour power. In such situation, workers' obligation is to sell their labour power in exchange for wages while decision making on profits or losses is left to the owners of capital. Thus workers are alienated from the surplus made out of their labour. The idea of alienation is discussed by Giddens who points out that workers are thus alienated from investment decisions (1973). In support, Opondo (2002) argues that alienation of workers in the cut flower industry from any sort of decision making is real, hence negatively affecting their livelihoods. However, to what extent has the alienation of workers from surplus affected their wages?

Alienation of workers from the surplus made in the industry leads to conflict between the owners of capital and the workers. This scenario, results to competition between the capitalists and workers, with the latter fighting for better remuneration and the former working out how to optimize the profits. It also contributes to a misunderstanding

between the capitalists and workers in the production (Kelso and Adler, 2000). By contrast, the failure of justice in the distribution of surplus and the process of production leads to class conflicts between the two antagonistic classes. Indeed, conflict is a key attribute of all capitalistic systems, including developing nations, which leads to waste of surplus and labour power. According to Odhong' and Omolo (2014) the number of man-days lost due to industrial strikes had increased from 14,806 man-days in 2008 to 25,504 man-days in 2010 and 175,329 in 2011 in Kenya flower sector. In such a scenario, capitalism destroys all forms of human relation hence leading to class conflict between workers and capitalists and commodification of everything in their relationship.

While conflict sociologists present capitalism as an exploitative economic system, functionalists can identify the positive contribution of capitalism in the growth of nations. Through capitalism, goods and services are produced while workers generate income that they use to sustain their livelihood. The foregoing notwithstanding, capitalism should not only be viewed from conflict point of view. Through it, cut flower workers sustain their livelihood thus making a difference in their lives as they strive to raise their living standard. It has created employment in Kenya where the unemployment rate was at 40 percent (Odhong' and Omollo, 2014). The cut flower industry offers a source of income to over 90,000, and approximately 2 million people indirectly and contributes 1.29% of the national Gross Domestic Product (KFC, 2015). In this perspective, both Palmer (2015) and Scepanti (1999) contend that capitalism has entrepreneurial innovation capacities evident in the stark difference between the 19th and 21st centuries growth and development, on the flipside, the opposed communist ideology as source of inequality in society (Freeman *et. al*., 2007). Thus, capitalism has both positive and negative phases in the cut flower industry.

Capitalism is therefore a paradox that acts both as a catalyst to development and as a source of social degradation in society. In the cut flower industry, it provides livelihood to unskilled workers and their families on one hand, and social degradation of workers through exploitation on the other hand (KHRC, 2012 and Odhong' and Omolo, 2014). Hence, this irony is characterized by development and dilapidation of the workers.

However, Acemoglu and Robinson (2015) argue in favour of the latter, where the economic growth in a capitalist regime translates to inequality between the owners of capital and the workers. Robbins (2008) also noted that capitalists pay minimum wages to workers, with a view to minimizing the cost of production and in effect, maximizing profits. As a result, the owners of the means of production benefit from surplus-value, while there are no benefit accrued to workers. Similarly, in the cut flower industry the workers receive low wages in spite of the immense profits which has been realized as a result of the output of workers (Leipold and Morgante, 2013).

The view that capitalism has led to perpetual exploitation of workers was advanced by Liu *et. al.* (2005) who in their empirical research opined that workers are exploited by owners of the means of production while surplus made by workers in the industry is appropriated. As a result, it exposes workers to immense economic hardships, while owners of capital are left to enjoy all the surpluses. Unfavorable workers welfare becomes salient when workers are treated like commodities by the owners of capital. Other scholars, such as Riisgaard and Gibbon (2014), KNHRC (2012), focus more on the plight of workers in relation to the owners of capital but failed to examine the plight of owners of capital whenever workers do not meet their labour expectations. Thus, although capitalism has sociological deficiencies like inequality, class conflict, exploitation, alienation, dehumanization and powerlessness, it has positive aspects like growth, creation of employment and development of cut flower industry.

2.1.2 Minimum Wage Policy in Kenya for Workers in Cut Flower Industry

There has been a continued struggle by the state to regularize wage policy in Kenya. The Kenyan state has struggled to control the excesses of the capitalism through setting of minimum wage across the agricultural sector where the cut flower workers are located. So far the Kenyan state has made twenty-one (21) minimum wage orders since independence. However, the expected outcome of improving the workers welfare has not been realized, at least not in cut flower industry. The historical root of minimum wages in Kenya has direct effect on workers expectations. The origin of labour policies and current minimum wage system in Kenya can be traced back to the colonial time. It was triggered

by the absence of an effective action by workers or their associations on wages which led to the government legislation of the 1932 Minimum Wage Ordinance to protect workers (Colony and Protectorate of Kenya, 1950). The Ordinance arrogated power to Governor-in-Council to make orders fixing minimum wages in Kenya in order to protect the owners of the capital against criticism from abroad.

However, it is not clear how the colonialists could put a registration to protect Africans since the objective was to protect the interests of the owners of the capital. The 1932 ordinance was followed by the Minimum Wage Ordinance of 1946 which provided for a Central Minimum Wage Advisory Board to recommend wage levels to the Governor-in-Council. It also covered the interests of white settlers who were carrying out farming in agricultural sector among other enterprises (Colony and Protectorate of Kenya, 1962). As a result, two boards were formed to cater for the wages of agricultural oriented businesses and non-agricultural enterprises. Since the workers in cut flower industry fall within the agricultural sector which was the economic niche for the colonialists, these boards were headed by the European farmers who made major decisions on matters of labour and production of cut flower in Kenya. Nevertheless, it was not until 1961 that African farmers were incorporated in the board (Colony and Protectorate of Kenya, 1962). Their inclusion in the board however, had impact on cash crop farming.

Agricultural wages Advisory Board (AWAB) and General Wages Advisory Board (GWAB) determine minimum wages workers in the latter and former, respectively. These boards were sanctioned in 1951, under an Act of Parliament (the Regulation of Wages and Conditions of Employment Act) in Kenya to offer advisory in order to fix minimum wages (Colony and Protectorate of Kenya, 1960). The two boards AWAB and GWAB continued to offer the advisory to the government even after independence until the establishment of the 2007 labour laws.

In 2007, Kenya established the 2007 labour laws to address the gaps in the existing laws and implementation challenges (Njeru, 2011). The General Wages Advisory Board (GWAB) and Agricultural Wages Advisory Board (AWAB) were appointed by the

Minister in the Ministry of Labour under CAP 46 of 1962, s. 4. Cap. 102. Both GWAB and AWAB were to offer the advice to the Minister of Labour as per the requirement provided in 46 of 1962, s. 6 & 7. Both boards were to establish the Wages Councils established CAP 41 of 1951, s. 5, 63 of 1951, s. 3. The wages council submitted to the Cabinet Secretary (CS) of Ministry of Labour proposal for fixing the remuneration to be paid to workers and proscribe their working condition.

Hitherto, regulation of wages and conditions of employment act of CAP 229 was designed to promote the living standard of workers (Pages & Andalon, 2008). Currently, the minimum wage fixing is administered under the Labour Institutions Act (2007), Section 43 of the Act which empowers the Minister in charge of labour to establish general and agricultural sector wage councils (RoK, 2012a). Currently, the wages councils give advice to the Cabinet Secretary (CS) on the minimum wages and working conditions and work in their respective wage councils (either under General Wage council or Agricultural Wage council). But considerable efforts have been made to align the related labour laws with the 2010 constitution of Kenya and the Fifth schedule. In particular, Article 41 of the constitution, for instance, provides a broad overview of labour relations, while it sanctions that "*every person has a right of fair practices (Article 41(1))*" and that "*every worker has a right to fair remuneration (Article 41(2) (a))*". However, the minimum wages set by the Agricultural Wage council lower than minimum wage set by General Wage council for general workers in spite of both employees working in the same geographical location.

It is to be noted that, in 2011, the gazettement of General Wages Order and the Agricultural Wages Order was done to address the basic minimum monthly wages and minimum daily and hourly rates for different categories of workers in Kenya. The gazettement was aimed at increasing the minimum wages for workers to address the inflation. Further, it was meant to improve the amount compensated for workers for their labour energy exerted in production in the industry. The General Wages Order which falls under GWAB contained minimum wage levels for fifteen occupational categories. The Agricultural Wage Order which falls under AWAB, and is the point of interest in this

study has eleven sets of minimum wages for different occupations in agricultural sector (Njeru, 2011). To date, AWAB addresses the minimum wages for workers in the agricultural sector in Kenya including workers in cut flower industry. However, the setting of the minimum wages for workers is not enough with the board focusing on the implementation of the legislated minimum wage policy. Still Pages and Andalon (2008) show that agricultural sector pays much lower in contrast to non-agricultural sector. Table 2.1 shows the disparity of the wages earned by workers in agricultural sector as well as those from general sector.

For instance, Waithaka, (2005) and Mwangi, *et. al.* (2015) confirm that workers in the cut flower industry have continued to receive low wages. However, these studies have failed to show causes for low minimum wages in the agricultural sector. This has been noted by Tijdens and Wambugu (2012) who acknowledge payment of low minimum wage for workers in agriculture sector though they failed to elaborate on the factors which led to the poor remuneration. Thus, in spite of the government trying to control the wage it has not succeeded in containing the exploitation of the workers through capitalism particularly in cut flower industry. However, the extent of exploitation due to low wages in the sector has not been interrogated.

Over time, minimum wage is revised by Kenyan government annually during International Labour Day celebrations on 1st May every year, since 1954 by the board. The board is comprised of the Ministry of Labour, the Central Organization of Trade Unions (COTU) and the Federation of Kenya Employers (FKE) and chaired by an expert in labour industry. So far in Kenya, there are several minimum wage orders created since independence but the impact has not been felt as such in cut flower industry which falls under AWAB. In general sector, wages order vary from the region where an employee is engaged, but in agricultural sector the wages is the same irrespective of the region a worker is being engaged as shown in Table 2.1. Table 2.1 compares the basic minimum consolidated wages for workers in general and agricultural sectors in 2015[3]. Table 2.1 is

[3] Kenya Gazette Supplement No. 91 dated 26th June 2015 both for general and agricultural Industry Order 2015.

shows that there is variation between the basic minimum wages paid to workers of lower cadre in agricultural sector and general sector.

Table 2.1: Basic minimum consolidated wages for workers in general and agriculture sector

OCCUPATION		**General sector workers**		**Agriculture Sector workers**
		Nairobi, Mombasa and Kisumu Cities	All other municipalities and Naivasha, Ruiru and Nanyuki Town Councils	
1	Unskilled employee	10,954.70	10,107.10	5,436.90
2	Night watchman	12,221.10	11,330.10	6,278.80
3	Lorry driver or car driver	18,595.20	17,090.50	7,966.80
	Clerk	14,173.50	13,259.30	9,808.10

Source: RoK, 2015

Table 2.1 shows the differentials of wages for general and agriculture sector where workers in cut flower industry are categorised. The workers in agricultural sector where cut flower industry is categorized are paid lower basic minimum wage than workers in the general sector irrespective of their work location. All the workers in the agricultural sector are paid the same basic minimum wage irrespective of their location unlike workers in the general sector. Thus, workers in the agricultural sector are alienated from better minimum basic wage by the state which affects their welfare.

2.1.3 Expansion of cut flower production in Kenya from 1960 to 2016

In spite of the growth and expansion of production of cut flowers, the workers' welfare have remained unfavourable especially due to lack of balance between low wages reported in the industry and increased production and sales of cut flowers. The historical

growth of the cut flower industry has shaped the current trend of remuneration which affects the workers expectations in Kenya.

Since 1950s, the market for cut flowers in Kenya was in Nairobi and Mombasa (Swaynnerton, 1954:23), hence, the cut flower production was in small quantities for consumption by colonial officers working in the two major towns. In 1952, however, a group of five (5) Assistant Agricultural officers and twenty five (25) African instructors intiated horticulture farming among the Africans, trained at Molo and Matuga horticultural stations (Swaynnerton, 1954:23). In 1960, the cut flower production in Kenya was under Land Development Board which covered all aspects of agriculture run by European farmers (Colony of Protectorate of Kenya, 1962). As a result, all policies made in agricultural sector favoured the interests of white settlers who owned the means of production. The Africans were nowhere in the sphere of production as they were not included in decision making, served for labour provision in white settlers owned farms in exchange for wages.

For the last sixteen years (2001[4]-2016), the leading flower exporting countries have been Netherlands, Columbia, Kenya, Ecuador, Israel and Ethiopia, just to mention a few entrants in the industry. In spite of Kenya being a key exporter of cut flower in the world, the wages of its workers continue to be low. The cut flower industry has contributed immensely to economic development in many developing countries in the world especially in Eastern and Central Africa where cut flower is one of the major export items (Meleseh and Helmsing, 2010). Arguably, the workers in the industry should benefit from the outcomes of cut flower production. Kenya's economy has witnessed an increase in both the production area and the sales of cut flower since its establishment in 1960s. In 2000, for instance, production area under the cut flower was around 750-1,000 hectares; then 2004 had 2,000 hectares while year 2011 had about 34000 hectares (Rikken, 2011). In order to understand the trend of market for cut flower in Kenya, Table 2.2 shows the trend of export market statistics of cut flower sales from 2001 to 2011 in Kenya.

[4] The industry witnessed a steady upward growth, in terms of acreage (Bolo, 2006)

Table 2.2: Export market statistics for cut flowers from Kenya (2001-2011)

Year	VOLUME IN KGS (in Millions)	Percentage (%) change (In Volume)	VALUES IN KShs. (in Billions)	Percentage (%) change (In value)
2011	110	182%	59	436%
2010	68	74%	24	118%
2009	87	123%	31	181%
2008	94	141%	40	264%
2007	91	133%	42	282%
2006	86	121%	24	118%
2005	81	108%	23	109%
2004	71	82%	19	73%
2003	61	56%	16	46%
2002	52	33%	15	36%
2001	39	-	11	-

Source: HCDA (2012)

Table 2.2 shows an upward growth in the production and sales of cut flower. The sales trend can be divided into two periods from 2001-2007 and 2008-2011, with the highest sales in 2011. The sales increased from 11 to 42 billion between 2001 and 2007 at 282% but decreased to 264% in 2001 to 2008. The decrease in 2008 could be attributed to the post-election violence experienced at the beginning of 2008 in Kenya. While the decrease in value in 2001 to 2010, could be attributed to the global economic meltdown in 2009 and 2010, experienced in Europe and western world. In 2001 to 2011, the increase of sales was 436%. However, with such an increase, the unskilled workers who constitute the majority in the cut flower industry earned KShs.3, 765 (US$44) in 2011 per month (RoK, 2015), accounting for less than 1.5 dollars per day. On this basis, Saad-Filho (2002) posits that there is non-parity in the exchange between workers and owners of capital as the value of labour power is presumably high enough but remunerated lowly for a decent livelihood of the workers. Oxfam (2013) agrees that the workers' wages remain a challenge and meet less than 45% of the family's basic living requirements,

hence leaving workers economically vulnerable. In the next section, the role played by the state in protecting the welfare of workers in Kenya is expounded.

2.1.4 The role of the state in the cut flower industry in Kenya

One of the objectives of this study is to establish the role of the Kenyan state on the workers' welfare in the cut flower industry through legislation and enforcement of the labour laws in the field. This section therefore, presents an overview of the role played by the Kenyan state in the cut flower industry, focusing on the extent to which the state has protected workers' welfare. Workers' welfare include workers' wages, working conditions, health and safety, and labour relations. There is no consensus in sociology on the role of state in development. On one hand, there are scholars who are pro-state and support the viewpoint that state should drive the development process in a country. On the other hand, capitalists who support pure market economy oppose the role of state in controlling factors of production and prices of goods and services. Thus, the discussion interrogates the policies and structures that the state has put in realization of workers' welfare.

One of the roles of the state is to ensure that labour policies are sensitized to its citizens. Omosa *et. al.,* (2006) denote that there is a need for the state to sensitize its citizens on labour policies that govern the conditions of provision of labour. In cut flower industry in Kenya, there are labour laws which have been legislated with the aim of protecting the rights of the workers. However, it is not clear whether these laws have been effective in addressing workers welfare. KHRC (2012) writes of scenarios where the workers' rights have been abused in the industry in spite of the existence of labour laws. This scenario occurs as the capitalists work out on the ethics of business management based on self-interest, profits and competition. Thus, state intervention is required to achieve democratic space for workers as well as capitalists in the industry. Bruner (2002) argues that even though there are laws in the cut flower industry to protect the rights of workers, the capitalist should not be left alone to enforce the labour policies as this would lead to exploitation of workers. Even though, the capitalists in the cut flower industry in Kenya

need democratic production space; the production also needs government oversight through the Ministries and other government agencies.

There are government agencies which oversee that the government mandate is established among its citizens. Nevertheless, in spite of the existence of the state agencies on the ground, workers in the cut flower industry in Kenya have continued to complain of abuse of their rights. According to a report by ETI (2005), workers in the cut flower industry have complained of low wages (which are not able to complement their budgets), dilapidated working conditions and poor health and safety related issues. However, the state has obligation to protect all its citizens both the capitalist and workers from exploitation. The state agencies mandated to accomplish its agenda include the line ministries in Kenyan government which are involved in addressing the issues of workers and capitalists in cut flower industry. These ministries include those of Environment, Labour, Agriculture, and Trade and Industry. However, on matters related to workers welfare, the Ministry of Labour is directly involved and works closely with the Directorate of Health and Safety Services and Environment and Natural Resources to protect workers from the abuse of their rights. On the other hand, the Horticultural Crops Development Authority (HCDA) is a government agency that oversees exports of the cut flower industry on behalf of the government and thus works closely with the capitalists to promote production.

The role of HCDA is to secure revenue through taxation and promote development of the industry, inform of extension services on innovative technologies with the view of increasing production (Opondo, 2002). This shows that the state plays a role in the development of the industry. HCDA as an agency of the government has been responsible in development and marketing, product value-addition, and marketing strategies on behalf of the farmers who in this case are the owners of capital (HCDA, 2013). Thus, HCDA works as an agency for regulation and policy formulation which covers the policies that favour investment and performance of the industry (Barrett *et. al.*, 1999). Thus, to what extent does HCDA serves the interests of the workers as well? In such an arrangement, the government plays a major role in advancing its development

agenda among the owners of the capital but it is not clear whether or not the interests of workers in the industry are safeguarded in the sector. As a result, this study addresses the workers welfare from the perspective of the state as the custodian.

The state has been endowed with legislating and enforcing the policies in the horticultural sector the home of the cut flower industry. The state is mandated to implement and enforce policies in the cut flower industry. A policy guides the operation of the specific industry to run with minimal constraints and the expectation is adherence to a cohesive working environment. The state generates more employment opportunities in cut flower industry by introducing labour intensive enterprise with the aim of improving production and alleviating poverty (RoK, 2012). However, beyond the generation of the employment, the state has a mandate to protect the owners of the labour from exploitation. Rikken (2012) reports of non-compliance with policies by some cut flower farms which affect workers' welfare in the cut flower farms. In support, Gibbon and Riisgaard (2014) concur that the policies in the cut flower industry are not enforced to satisfaction thus exposing the workers in the industry under the risk of exploitation. In such an instance, who is supposed to ensure that policies are enforced in cut flower industry in Kenya?

A strong state protects the labor rights and oversees the implementation of the social policies as argued by Migdal (1988). In cut flower industry, this can be a reality if the state safeguards the labour policies. A state is felt when it promotes harmonious industrial relations in the places of work, safety and health at workplaces; promotion and training of workers (RoK, 2013). However, KHRC (2012) observed that the Kenyan state had failed in fulfilling its mandate attributed to structural, financial, legislative and human resource related challenges. Thus, the labour practices in Kenya are hindered by scanty information on occupational safety/health guidelines, labour rights and insufficient technical skills (RoK, 2013). These challenges have exposed workers to exploitation by the owners of the capital. Do these challenges still exist even up to date? According to Rueschemeyer *et. al.*, (1992), the success of state policies is possible when a state offers a business climate to the owners of capital which entails allowing them to operate with

minimal interference. Thus, the state leaves the owners of capital on their own rather than micromanaging the industry which means seeking less participation from the state as noted by Migdal (1988). However, there are other challenges which emanate when the owners of the capital are left on their own without the social control of the state. This study thus, interrogates the role of the state in ensuring favourable workers' welfare in the cut flower industry.

Nevertheless, when the structure of the state in dealing with cut flower industry is scrutinized there is evidence of bias geared towards the interests of the owners of capital in relation to workers (Opondo, 2002). Conversely, it is the role of the state as arbitrator to balance its protective role to caution on discrimination against either the workers or the owners of capital. This occurs in case of effective systems by the state to control the effects of capitalism (Migdal, 1988). The state safeguards the capitalists in the cut flower industry by protecting their capital and among workers it safeguards their labour power, a balance which is eminent in a strong state which is able to control capitalism. Conversely, Obo and Coker (2013) argue that in a capitalist system (experienced in weak states), the state protects the interests of the dominant class (the "haves") leading to exploitation and oppression of the weaker classes, through low remuneration, dilapidated working conditions, harassment by supervisors and poor working environment (KHRC, 2012 and Oxfam, 2013). The workers are thus impoverished and denied access to surplus by the owners of capital thus propagating pure capitalism. However, is this scenario pre-eminent in the cut flower industry where the workers welfare is skewed towards the negative?

Pure capitalism in some instance leads to exploitation of workers by owners of the capital especially when the state fails to intervene. One typical role of the state worldwide is to protect its citizens by ensuring equitable exchange relations between the workers and owners of capital (Migdal, 1988). The state is expected to protect both the interests of workers and those of owners of the capital to ensure a harmonious existence of all actors in an industry. It is understood that with minimal interference by the state in the cut flower industry, working environment is biased towards the interests of the owners of capital who constitute the dominant class and tend to maximize the profits (Bolo, 2006).

In the same perspective, Bonarriva (2003) argues that the high profit made by MNCs in Kenya is attributed to minimal government interference and liberalization of the economy. This is one of the tenets of Marxist theory. As a result, the failure by the state to monitor and enforce labour rights compliance expose the interests of the workers leading to exploitation as observed by KHRC (2012). This scenario according to Meleseh and Helmsing (2010) has led to the exploitation of workers thus affecting workers' welfare in terms of labour relations, low wages, excessive working hours, job insecurity and gender discrimination among workers. This again forms part of pure capitalism which amounts to failure in addressing workers' rights and welfare, thus the state leaving the industry on its own, an observation made by Opondo (2002). Therefore, the owners of capital in cut flower industry have focused on their interests, dominated by maximization of profit. Consequently, the government's agenda in prioritizing the interests of its citizens is overshadowed by the interests of the owners of capital, at the expense of workers, thus affecting workers' welfare.

Capitalism has both positive and negative aspects in an industry. Positive aspects capitalism in a society includes creating employment and surplus. However, negative capitalism especially in cut flower industry in the relations with workers leads to unfavourable welfare which needs taming or control by the state (Migdal, 1988). However, how can the state tame the capitalism which is so entrenched in a society? Studies in the cut flower industry in Kenya have not dealt with the role of state in taming negative capitalism exhaustively in spite of legislating labour policies on minimum wages and working conditions. However, Andalon and Pages' (2008) argue that though minimum wages in Kenya is better enforced than in other sub-Sahara countries (like Zimbabwe, Tanzania and Ethiopia), it had a stronger effects in general sector than in the agricultural sector which houses cut flower industry. Hence, to what extent has the state tried to correct the discrepancy on workers wage to harmonize the minimum wages in agricultural and general sector? The state has a duty to make labour policies based on equity of workers' labour power and their level of production in the industry. However, a weak state[5] is left behind in ensuring commensurate package for the workers. In spite of

[5] A weak state does not have power or portrays a little power in controlling capitalism

minimum wages legislated for agricultural workers including the cut flower workers, who usually earn much less in comparison with general wages. But what has state done to ensure that the wages among cut flower workers are commensurate with their labour power in the industry? Therefore, this study interrogates the position taken by the Kenyan state in ensuring a favorable workers' welfare in the cut flower industry which can either group it to be strong or weak.

The state has the role in development of the cut flower industry. According to Bolo (2006), the state provides a conducive environment for the development of the industry through policy and legal framework. This kind of development affects both the owners of the capital and the workers. However, for a strong state, there is a balance in enforcing and implementation of the policies in the industry unlike weak state where they are biased towards the owners of the capital as discussed by Migdal (1988). Thus, even though there can be development in strong states it leads to the growth of the industry in terms of volume rather than workers.

The workers' welfare in the Third World Countries (TWCs) have been characterized by inherent conflict as workers demand better wage packages, working conditions and labour relations (ILO, 1961). To address workers' welfare, Opondo (2002) hypothesizes that the cut flower industry needs government policies that provide a conducive environment for the cut flower production without its direct intervention. However, when the owners of capital are left on their own by the state, they may opt to pursue their interests at the expense of working environment for workers. It is in this line of thought that Rikken (2012) argues that private sector works best without the state intervention especially if property rights and competition are guaranteed. Nonetheless, when the focus on property rights and competition end up infringing on workers' rights, then, it suppresses negatively the appropriate labour policies (Odhong' and Omolo, 2014 and Perry, 2012). This becomes a reality when there is unequal exchange of labour power and wages hence exposing workers' welfare to the exploitation by the capitalists.

One of the major roles of the state is to legislate and enforce the labour laws to ensure favourable workers welfare. According to Scott (2006), one of the obligations of the state and its agents, is to legislate and ultimately enforce the laws and regulations that guide production and trade. This statement is reiterated in a report on cut flower in Kenya by Rikken (2012) supporting the view that the primary role of the state is to enact and enforce government policies. Certainly, the stakeholders in the industry should be sensitized on these policies. Conversely, workers in cut flower industry are not aware of these policies (Dolan *et. al*., 2002).

However, has the state either directly or indirectly helped the workers to be aware of the policies in the industry? Nonetheless, in the cut flower industry, the state seems to have been slow in enforcing policy and thus the voice of workers has not been heard by the owners of capital as lamented by Opondo (2002). This is reiterated by Tallontire *et. al.* (2005:568) that *"the government in Kenya has yet to enact the statutes that recognize equal pay for equal work, nor are there any specific legal protections against discrimination*." Lack of equity in exchange of labour energy and wages between the owners of the capital and workers in the industry leads to negative reciprocity and therefore a form of disparity as argued by Ghani and Lockhart (2008).

Thus the state has obligation to protect both the owners of the capital and workers from negative aspects of the capitalism. The state should intervene while balancing between the rights of workers and capitalists. The balancing requires strong state with proper checks and balances. Have the state managed to tame capitalism in our society? The following section attempts to find out the contribution of non-state actors on workers' welfare.

2.1.5 Contribution of non-state actors on workers welfare in the cut flower industry

In the foregoing section, a discourse on the role of the state is explored. This section attempts to explore the contribution of non-state actors which includes trade unions and Civil Society Organizations (CSOs) in promoting the workers' welfare in the cut flower industry. The non-state actors have been credited for promoting workers welfare in the

cut flower industry. Scholars like Hutter and D'maheny (2004) and Dolan and Opondo (2005) note that the role of CSOs and trade unions is to influence law and policy by engaging in a variety of civil actions like campaigns by NGOs against poor labour practices. As Barrientos (2014) puts it, the role played by civil society and trade union is that of pressurizing buyers to implement social and environmental standards in the flower sector. In addition, non-state actors pressurize the owners of capital to adhere to the labour standards (Dolan and Opondo, 2005). The role of the trade unions is to address the factors that hinder development such as human rights and unequal relations especially between the owners of the capital and the workers (Fisher, 1988). Thus the non-state actors compliment the state in ensuring that the social policies are implemented.

Dolan *et. al.* (2002:63) recommended that trade unions should be substantially incorporated in auditing of the cut flower farms to ensure that ethical standards are adhered to, by owners of the flower farms. This section interrogates the ideal role of non-state actors (trade unions and CSOs) with regard to workers' welfare in the cut flower industry.

The non-state actors are perceived to doing little in addressing the workers welfare in the Third World countries. According to Boltanski and Chiapello (2005), non-state actors in the Third World countries are weak in comparison with robust non-state actor in the First World countries as observed. This is predisposed by the existence of strong trade unions and CSOs in the First World countries which represent and safeguard workers' welfare (Resnick and Wolff, 2003; Riisgaard, 2011). The strong labour unions in the First World countries advocate for the labour rights of the workers and sensitize the workers on labour codes, hence protecting workers from exploitation by owners of capital (Resnick and Wolff, 2003). But in Kenya, what has been the current ideal scenario? Some scholars argue that there have been improvements in observance of human rights in the cut flower industry (Riisgaard (2007 and Korovkin and Sanmiguel-Valderrama, 2007). However, to what extent can the claim of improvement of workers' welfare be attributed to the activities by the non-state actors in the industry? Generally, we perceive the labour unions and CSOs to be weak in Third World Countries, but to what extent are they weak

in Kenya? This study also attempts to establish the contribution by non-state actors (labour unions and civil society) in safeguarding workers' welfare in the cut flower industry.

Observance of workers' welfare in the cut flower industry correlates well with safeguarding of human rights. Kenya Human Rights Commission (KHRC, 2012) itemizes some of the articles dealing with workers' welfare to include: Labour relation, Article 41; Economic and Social rights, Article 43; Freedom of Association, Article 36; Equality and Freedom from Discrimination, Article 27 which are strengthened through the Constitution of Kenya (2010). All the listed articles are geared towards ensuring that workers' welfare are addressed. How do workers benefit from the contribution of these articles? Non-state actors especially CSOs and trade unions are believed to contribute towards effective application of labour policies in the field.

Consequently, Barrientos (2014) argues that workers' rights in cut flower industry are not only affected by global and national jurisdiction of human rights but also adherence to codes of labour practice and related social standards which should apply to all the stakeholders. However, it is our view that the contribution of non-state actors in ensuring the adherence of the codes of labour practice is silent. In such a scenario, the workers are left on their own without an institution to intervene in case of abuse of their rights in cut flower industry. In 1998 the International Code of Conduct (ICC) standards was proposed by the NGOs in Germany and Holland which emphasized employers' respect for labour rights as discussed by (Riisgaard and Gibbon (2014). However, after proposing this code little has been seen on improvement of the welfare of workers. The 1988 ICC code had touched on the labour issues which have a direct effect on workers' welfare such as wages, working conditions, human rights, labour relation and issues that touch on environmental conservation. In such a scenario, we would expect a follow-up by the NGOs and even labour unions on implementation of the code. As a result, the existence of trade unions, NGOs and other civil rights groups has failed to make a significant difference in improving the livelihood of workers in the cut flower industry. As a result,

issues of injustice like poor working environment, low wages and hostile labour relations in a number of the cut flower farms thrive in the industry (Opondo, 2002).

The image of cut flower industry in Kenya has been portrayed negatively by media on issues relating to abuse of human rights especially in the early 2000-2010 (Perry, 2012; Ali, 2008; Dolan *et. al.,* 2003)[6]. Nonetheless, social, health and environmental degradation issues affecting workers were live in the cut flower farms as confirmed by Leipold and Morgante (2013). But recently, Barrientos (2014) acknowledges that there has been advocacy and campaigns by global NGOs which led to improvement of workers' welfare. Nonetheless, this observation was refuted by Oxfam (2012) who posited that the abuse of the human rights in the cut flower farms has been going on in spite of labour unions, CSOs and NGOs empowering working conditions of workers. The argument made by Oxfam depicts that the contribution by labour union, CSOs and NGOs on the deteriorating workers' welfare in the sector as though not felt by the employees. However, what kind of contribution are the non-state actors supposed to offer on workers' welfare in the industry? This is a pertinent question which this study attempts to investigate the contribution made by non-state actors on workers' welfare in the cut flower industry. Barrientos (2014) points out that working environment of workers can be influenced further by advocacy and campaigns of global unions and international NGOs which are part of non-state actors.

Non-state actors among them CSOs and labour union in the society are perceived to play a role in uplifting the welfare of workers in cut flower industry. They contribute immensely on sensitization of workers in labour related issues. This view is confirmed by Wambutsi (2014) acknowledging that some achievements made by CSOs toward advocacy for respect for human rights of the workers by the owners of capital in the cut flower industry. The sensitization of human rights issues among the workers depends on

[6]On 2nd August 2011, "over 200 workers protested accusing their employers of paying peanuts and making them to work for long hours while earning KShs.110 per day and a house allowance of KShs.600 per month (The Standard Newspaper 2/08/2011)." This trend continued and after seventeen days over flower workers 300 at Savannah International (Multinational company) strike due to poor wage of KShs.110 per day, harassment from management, expulsion of pregnant workers, lack of protective clothing, lack of medical leave (The Standard Newspaper 19/08/2011).

the availability of funds and other resources to facilitate their objectives on the ground. Currently, CSOs and NGOs campaigns occur less frequently in comparison with the past (1990s) as a result the impact of these campaigns is felt by just a few workers in the cut flower industry (Dolan *et. al.,* 2003). As a result, lack of frequent campaigns by the NGOs and CSOs in the industry leaves a gap on issues related to labour in cut flower industry.

To a large extent, however, in developing countries, the labour lobby groups have not managed to control the negative impact of capitalism due to poor enforcement of labour policies (Andrees and Belster, 2009). According to Tarrow (1994), labour unions support the workers in search of value adding collective action, by coordinating unorganized, autonomous and dispersed population into a common and sustained action. But to what extent is this happening in the cut flower industry in Kenya? The industry has been facing several challenges like low registration of workers to KPAWU which is responsible for workers in cut flower industry (Omosa *et. al.,* 2006). As a result, workers have become vulnerable to the manipulation by the owners of the capital. This affects the welfare of the workers in the industry and the operation of the trade union in the industry. Thus, according to Riisgaard and Gibbon (2014), the voice of the workers has been weakened as well as the promotion of labor rights and it has been difficult to address the workers welfare through the trade union. In support of this view Hirschman (1970) in Voice, Exit and Loyalty theory points out that labour union is a political instrument aimed at voicing out the concerns of workers, the same contribution made by CSOs. However, in the pool of the challenges experienced in the industry the contributions made by trade unions and CSOs have not been clear.

There have been contradicting reports on whether or not the non-state actors have played a role in curbing abuse of rights of workers in the cut flower industry. More specifically, Barrientos (2014) argues that CSOs raise the issues of workers against discrimination and exploitation. Conversely, Matanga (2000) had earlier observed that CSOs are, to some extent, compromised in their progressive and reactionary roles resulting in failure to protect the workers human rights. When the CSOs are compromised the end result is

failure in expansion of the political participation of the workers which affects welfare of workers. As a result, when the non-state actors fail to take the voice option of workers in raising the issues of concern affecting their welfare, then rights of workers are violated by the capitalists in the cut flower industry. This scenario is observed by Opondo and Hale (2005) when they documented poor working conditions, long working hours and low wages for workers in the cut flower in Kenya. In addition, Hutter and D'maheny (2004), note that non-state actors have failed in serving the interests of the workers; workers are therefore left to work in an environment which impacts negatively on their welfare. In the said scenario what could be the contribution of non-state actors? Riisgaard (2011) hypothesizes that non-state actors have failed to uncover the hidden social and economic problems experienced by workers thus leading to deterioration of their welfare in cut flower farms. Consequently, we concur with Riisgaard (2011) that the non-state actors have failed hence exposing workers to exploitation by the owners of the capital.

Trade unions rarely carry out their role of safeguarding workers' welfare in the cut flower industry in Kenya. This viewed is deduced from Dolan (2008), who observes laxity on the part of the trade unions in safeguarding workers' welfare which has led to poor remuneration and poor working conditions. This has resulted to negative effects with regard to employees working environment which has not been limited to violation of their rights by the management in spite of campaigns by CSOs and trade unions (Riisgaard, 2011 and Barrientos, 2014). In addition, Pines and Meyer (2005) observe that non-state actors have been ineffective in addressing workers' welfare. In the cut flower industry there are labour issues which have been touching on workers' welfare that needed to be addressed by non-state actors like threat of dismissal, declaring bankruptcy threats on labour unions and organizing company-controlled unions as observed by Korovkin and Sanmiguel-Valderrama (2007). Therefore, the study attempts to find out the contribution of the non-actors on workers' welfare in the cut flower industry.

The non-state actors especially the trade unions and NGOs play a role of political voice of workers on labour related issues. This view was supported by Fisher (1998) observing that unions play a great role in supporting their members on labour related issues.

However, in cut flower industry there have been instances where majority of workers are not unionized. For instance, previous studies in Kenya (Dolan and Opondo, 2005 and Riddselius, 2011) have reported that only a minority of workers in the industry were unionized while majority were not as they were employed on temporary or contract basis. This results to underrepresentation of the interests of majority of the workers in the industry thus, exposing the workers to unchecked social security systems that affect their working environment (Meleseh and Helmsing, 2010). In addition, Dolan (2008) observes that while some workers have failed to join labour unions, some of those who have joined fail to deliver the economic aspect of the union by not paying the union fee. In such a scenario, we observe that the trade union in Kenya may not be in a position to serve workers' interests. In the next section, an assessment of the literature on the contribution of the ownership of capital (MNCs/local entrepreneurs) on workers' welfare in the cut flower industry was carried out.

2.1.6 Contribution of the owners of capital in the cut flower industry

In this section, the focus is on the contribution made by the owners of the capital on workers' welfare in the cut flower industry in Kenya. The owners of capital may either be MNCs or local entrepreneurs. The contribution of the owners of capital in the cut flower industry could be both positive and negative aspects. The positive aspects include provision of the capital, economic development, income opportunity for the unskilled labour, source of the livelihood and sourcing of market for the production. However, the owners of capital have been condemned by most of the scholars because of exploitation of workers looking for an opportunity for a formal employment in the industry. Consequently, this section explores the different views exposed by the scholars in the cut flower industry on the nature and contribution of owners of capital on workers' welfare in the industry.

The owners of capital are known to provide capital for the industry with the aim of making profit. This position is supported by Ulrich (2014:339) who observed that even though workers made enormous profits for the owners of the capital, the latter subjected workers to harsh working environment like "*low wages (~1.40–2.90 US$ per day) and*

poor working conditions such as overtime work, health risks and insecure employment tenure related to seasonality and lack of due notice". Basically, MNCs are invited by the local state to provide scarce capital needed for investment. However, MNCs are profit making bodies and therefore beyond being invited by developing states to provide capital, they also come to do business with the host states. In this regard, though modest development could occur, it is not mainly their key agenda. Fidh (2008) posits that although MNCs are invited by the developing states with the aim of helping these states to achieve economic development, they rarely put their objectives in tandem with the state's agenda.

The main reasons why most of MNCs are found in TWCs is due to good environment for doing business, weak currencies and low-cost of production, all ideal conditions for profit maximization (Evers *et. al.*, 2014). Therefore, the aim of MNCs is not to further develop the developing states but reaping immense benefits from their environments. Bonarriva (2003) affirms that developing states like Kenya and Ethiopia are popular with MNCs in the production of cut flowers due to availability of cheap raw materials, low labor costs and favorable climate unlike the developed states such as U.S.

According to James (2004:14), the economic activities of MNCs are driven by deliberate arrangements to maximize the profits. This has led to the practice of pure capitalism as exemplified by the states like Zambia which had phenomenal growth rates (152%) in the export of cut flowers between 1995 and 2002 while the wages remained the same over the same period (English, 2007). This scenario by MNC / local entrepreneurs has positive effects on the state economy. As such the workers remain economically vulnerable if continued exploitation by owners of the capital is allowed to prevail.

The contribution made by MNCs on workers' welfare in cut flower industry in TWCs is not clear in spite of the advantageous position they hold and the platform given of doing business in the host countries in comparison with the local entrepreneurs. According to Evers *et. al.* (2014), it has been difficult for local African investors to establish independent farms due to high cost of production and lack of global sourcing platforms.

Consequently, the situation leaves the MNCs at an advantage over the local entrepreneurs in doing business in TWCs. Some of the platforms where the MNCs have been enjoying preferential trade programs over local entrepreneurs are like Andean Trade Preferences Act (ATPA), Caribbean Basin Economic Recovery Act (CBERA) and the Generalized System of Preferences (GSP), the U.S.-Israel Free Trade Area and the African Growth and Opportunity Act (AGOA) (Bonarriva, 2003). However, the study does not show whether or not the above platforms contribute to workers' welfare in TWCs. The expectation is that MNCs accrue the special preferences in the market which leads to surplus to improvement to workers' welfare. Most of the MNCs thus, benefit from the programmes as a result being in advantaged positions in the cut flower business against local entrepreneurs. However, it is not clear whether or not the workers' welfare in the industry change as a result of the accrued benefits. Thus, this study attempts to establish whether or not the MNCs have made significant contributions on workers' welfare in the cut flower industry in Kenya.

The type of owners of capital in cut flower industry influences the workers' welfare. This view is shared by Omosa *et. al.,* (2006), reporting that the farms which were owned by local entrepreneurs had a favourable working environment than in the farms owned by MNCs. As a result, Evans (1979) observes that MNCs export capital into the developing countries taking advantage of these countries based on such attributes as weak currencies. Consequently, utilization of this capital in TWCs assist MNCs in making surplus in cut flower production at the expense of workers. As a result, the immense profits made by the MNCs are repatriated back to their country of origin instead of improving the status employees working in their industry in the host country (Tierney, 2008). According to Meleseh and Helmsing (2010), MNCs make huge profits acquired though exploitation of workers. However, does it mean that workers in farms owned by local entrepreneurs are better off than the one owned by MNCs? According to Moore (2010), MNCs in Kenya accumulate immense profits by taking advantage of workers, whilst Evers *et. al.,* (2014) posit that real wages have remained constant in spite of enormous profits, hence negating decent livelihoods for workers and their dependants. Conversely, Brown *et. al.* (2003) in his study on FDI, observed that MNCs have been paying low wages and subjecting the

workers to coercive, abusive, unhealthy and unsafe conditions in the workplace. Brown *et. al.,* (2003) used economic theory to study the effects of FDI and multinational firms on wages and working conditions in host countries. The study by Brown *et. al.,* (2003) was based on desk review thus failing to bring forth new impetus in the discussion. Nevertheless, this discussion was not thoroughly substantiated. This study sought to establish whether or not the ownership of the farm affects the workers' welfare.

Workers' welfare is supposed to be protected against abuse by owners of the capital through ILO conventions. Majority of the MNCs originate from countries which have embraced ILO convention on labour like Netherlands and Colombia. Nevertheless, Kenya has not ratified the ILO conventions which may have an impact on workers' welfare. Among non-ratified ILO conventions include: ILO (n° 87) Freedom of Association and Protection of the Right to Organize Convention, 1948; ILO (n° 155) Occupational Safety and Health Convention, 1981; ILO (n° 161) Occupational Health Services Convention, 1985; ILO (n° 187) Promotional Framework for Occupational Safety and Health Convention, 2006 (Fidh, 2008). The listed ILO conventions protect the workers against violation of their rights by MNCs and local entrepreneurs thus ensuring favourable working environment. Lack of ratification of the listed ILO convention creates an exploitable environment for MNCs.

The situation has exposed workers in the cut flower industry to exploitation by the owners of capital (Oxfam, 2013). Even though the owners of capital have been aware of the conventions, the working environment of workers has remained wanting for a long period. Nevertheless, Morgante and Leipold (2013) hypothesize that despite significant improvements in working conditions, the other components of workers' welfare like wages and labour relations have been deficient. Conversely, Ulrich (2014) notes that the industry has had serious health related issues due to cold like chest problems due to lack of protective gear for cold and chemicals. Therefore, does it mean that there are variations in workers' welfare in farms owned by MNCs and those owned by the local entrepreneurs due existence of ILO convention.

The state provides good environment for doing business to the MNCs and local entrepreneurs thus creating strong and robust private sector in the cut flower industry in Kenya (Bolo, 2006). To reciprocate the state expects the owners of capital to offer a favourable working environment to its citizens. On the contrary, the MNCs in in Kenyan cut flower industry have been paying workers low wages and force them to work in dilapidated environments in order to cut on the cost of production (Moore, 2010). But the MNCs are supposed to show Corporate Social Responsibility (CSR) to the community as a way of giving back to the society. However, Lund-Thomsen (2013) observes that the said CSR has not been forthcoming. Thus, how else do the MNCs and local entrepreneurs contribute to the workers welfare? Odhong' and Omollo (2014) observe that the key contribution of MNCs and local entrepreneurs to the workers is creating job for the unemployed which currently stand at 40 per cent. As a result, this study explores the other contribution made by the owners of capital beyond creation of employment for the unskilled. The next section focuses on market accrediting agencies and their impact on workers' welfare.

2.1.7 Influence of Market Accrediting Agencies on Workers Welfare

This sub-section attempts to establish whether certification of cut flower farms in Kenya impacts on workers' welfare. The market accreditation agencies for the cut flowers include the FLO, MPS-SQ, ICC, FPEAK and KFC. The cut flower industry is guided by international standards of practice that emphasize protection of basic rights of the workers (Riisgaard, 2011). The role of market accreditation agencies is to ensure that the cut flower farms adhere to the laid down standard code which are social, economic and environmental. The market accreditation agencies are forms the basis of accrediting the cut flower farms in Kenya. Market accrediting agencies are either local or international. The International codes supposed to be implemented in the industry include globally accepted quality standards such as *Milieu Programma Sierteelt* (MPS), which guides the production and marketing in the industry. More specifically, MPS focuses on creating a conducive social and environmental friendly working culture, recognized at global level (Meleseh and Helmsing, 2010:47). These standards are stipulated in ILO (1998) meaning that these rights are universal, and that they apply to all people in all states irrespective of

the economic development of a specific country. The local accrediting bodies include the Kenya Flower Council (KFC) and the Fresh Produce Exporters Association of Kenya (FPEAK). On the other hand, the international ones include MPS Social (recognised in Dutch markets), Ethical Trading Initiative base-code (UK Markets), Flower Labour Programme (FLP), Business Social Compliance Initiative (BSCI) and Fair Flowers Fair Plants and Rainforest Alliance among other ethical standards (KHRC, 2012).

The role of the accrediting agencies is to participate in the activities of standardization of the cut flower industry with a view of sanitizing the industry from negative perception in the market on production of the cut flower. As a result, the industry has come up with both local and international code of practice which are audited by local and international market accrediting agencies which touches on both environment and social standards. The market requires that a cut flower farms should adhere to these codes for their products to be accepted in the international market. Among the three aspects audited, which are environmental and social aspects, the social context of the code is minimal and carried out superficially. The social codes cover the workers welfare in the farms. Thus, this section addresses the impacts of market accrediting agencies in the industry, compliance of cut flower farms with the codes and in general whether or not the codes affect the workers' welfare.

Kenya is one of the signatories to the International Standard Codes which ensures compliance with workers' safety practices in the cut flower industry. However, "in spite of a plethora of codes covering flower farms, little attention has been paid to establish whether the existence of these codes has made any significant difference to workers themselves" (Opondo and Hale, 2005:307). Furthermore, Alli (2008) established that workers in the cut flower industry were exposed to poor working conditions, low safety, health standards, and environmental hazards. The demand has been that the owners of capital in the cut flower industry follow internationally recognized environmental and social standards marshaled by local and international accrediting agencies among other stakeholders in the standardization (Riisgaard and Gibbon, 2014). In spite of having these codes in place, their effectiveness in safeguarding workers' welfare is questionable.

It is thus important to check on the extent of adherence to codes in the cut flower industry as it affects the workers' welfare in the cut flower industry.

In European market, Kenya is the largest supplier of cut flower which accounts 50% of cut flower market where the standard deviation of market output for monthly from 2002 to 2012 was 10,000-12,000 tons (Risgaard, 2014). As a result, it is one of the most codified, industries even though violation of basic rights of the workers continues to thrive (Moore, 2010 and Alli, 2008). The code standards in the cut flower industry are meant to establish a non-exploitative environment and to protect the rights of both owners of capital and workers for establishment of favourable working environment. The basic labour standards include : "...freedom of association and the right to collective bargaining; abolition of child labour; a ban on forced labour and the elimination of discrimination with regard to employment....and working hours and occupational health" (Korovkin and Sanmiguel-Valderrama, 2007:3). These standards seem not to work in the cut flower farms where workers are denied their basic human rights (Riisgaard, 2011). This is one aspect of a non-compliance with safety standards in the cut flower farms as established by the scholars like Dolan (2005), Morgante and Leipold (2013) and Alli (2008). Therefore, this study sought to establish whether or not there have been effects of standardization codes on the workers' welfare in the cut flower industry.

In the cut flower market, the suppliers are only allowed to participate in flower chain only after adhering to the set standards codes enforced by the bodies like German Importers Association, Food First Information and Action Network (FIAN) and large supermarket chain (Migros) which are in-charge of International labelling programmes. Lack of compliance with the set standards by the supplier blocks him/her from accessing the cut flower market. Non-compliance to codes has adverse effects on the working environment of workers. Alli (2008:7) observes that "workers are exposed to poor working environments like low safety nets, poor health standards and environmental hazards." This observation is further observed by Beyene (2014), whose key finding was that workers are exposed to poor working conditions. Beyene (2014) study was carried out in Sebeta in Ethiopia where most of cut flower farms from Kenya had migrated to. Thus,

these farms have also migrated with the patterns of working conditions among workers in Ethiopia might be even worse. The study used interview, focus group discussion, key informant interview and observation to collect data. Therefore, lack of compliance affects both workers to a great extent on their welfare and the owners of capital in terms of a market of their product. Consequently, this study explores how compliance or non-compliance has affected the working environment for workers in the cut flower industry.

Currently the market calls for adherence to standards codes through certification schemes, codes of practice and consumer labels which meet the needs of retailers (Rikken, 2011). However, it is worth to note that adherence to codes require a farm to join an accreditation body and implement the codes. However, a farm joins the accreditation bodies to fulfill its own interest of both market access and maintaining of long-term business prospects as reported by Morgante and Leipold (2013). These codes of practice from accreditation agencies aims at establishing favorable working environment between workers and owners of capital and in harmony with working environment. According to Riisgaard and Gibbon (2014) the implementation of the said standards has been slow, resulting to persistent complains from the workers. Nevertheless, this contrasts with the increasing demands for social and environmental standards in the European flower trade. Thus to what extent are complains of the workers in cut flower farms related to non-compliance of the certification codes?

In Kenya, the KFC and FPEAK audit cut flower farms on compliance with the standard codes on behalf of the consumers (Opondo and Hale, 2005). The process of auditing a farm starts by sending auditors in the farm by the accreditation agency. A meeting is held where relevant documents are reviewed and in case of a gap they confirmed by interviews and finally a closing meeting is held. Some of the documents reviewed include the sales documents, labour related documents and policies related to occupational health and safety (Riddselius, 2011). The documents that directly touches on workers welfare is the one on occupational health and safety policies. These local audit agencies mandated with auditing cut flower farms on behalf of international accreditation bodies are KFC and FPEAK. Thus, the audit farms are more concerned with customers of the product and

the retention of market by the owners of the farm. This view is supported by Opondo (2002) who reported that the market accreditation agencies interests are tied mainly to the interests of owners of capital. A report by Korovkin and Sanmiguel-Valderrama (2007) established that there had been minimal success in implementation of the codes by the owners of capital. However, to does implementation of the codes by the owners of the capital affected the workers' welfare?

There are some instances when the cut flower farms have been accused of failure to adhere to laid down codes. Compliance with the laid down codes affects the workers' welfare. A study by Dolan (2008) reports that owners of the cut flower farms in some situations have failed to adhere to requisite standard codes, thus impacting on the workers' welfare. In such a situation, what happens with the market? It is not clear what happens when a farm fails to adhere to the codes. Morgante and Leipold (2013) argue that adhering to the certification codes favours only the interest of the owners of cut flower farms. However, there has been contrasting information regarding compliance with the standard codes where workers have also benefitted due to the compliance on the certification codes by the cut flower farms. According to Barrientos (2014), there has been increasing compliance with international standards codes where an estimated 93 of 177 flower exporting farms have been certified for social or environmental standard and 73 for both standards. This position is supported by Gibbon and Riisgaard (2014) who note that 49 large flower farms under the Kenyan Flower Council accounting for 59% of the area under cut flower production have complied with standardization codes. The studies by Barrientos (2014) and Gibbon and Riisgaard (2014) indicate improved compliance of the cut flower farms with international standards codes. Therefore, to what extent has compliance with codes favoured the interests of workers? Thus, this study attempts to establish whether or not the compliance impacts on workers welfare.

Finally, for codes to have a real meaning in the lives of workers there must be training of workers. Thus, training of workers in the cut flower industry on International labelling programmes like (MPS), green label Fairtrade, German-based Flower Label Programme (FLP), the Protestant relief organization, and *Terre des hommes* is important. The

labeling of the cut flowers on sale in the market promotes the production and marketing of the cut flowers and thus by extension ensuring a decent working environment. For instance, MPS-SQ and Fair trade labels demonstrate that the products are cultivated under good working conditions (Fidh, 2008).

According to Davies (2000), one of the important policy that emanate from labeling programmes are on labour standards, the environment, occupational safety, health and employment aimed at meeting environmental and ethical guidelines in the cut flower production. The study by Davies (2000) was done in Zimbabwe cut flower industry to establish how the labeling programmes affect growers and workers. The study was carried out using a random sample for in-depth interviews and case studies where 34 workers were interviewed. It concluded that the labelling programmes did not change the working environment of workers. However, the sample collected was too little to be generalized in the whole population of workers in cut flower industry in Zimbabwe. Barrientos (2014) acknowledges that there has been a significant adoption of codes of practice in the industry in Kenya which led to improvement of workers' welfare. Nevertheless, there are some aspects in the certification which are not addressed by the market accreditation agencies like the effectiveness of the PPE used by the workers in the farms (Riddselius, 2011). However, it is not clear whether or not the improvement on workers welfare has been brought by certification alone.

2.2 Summary of the Literature Review

The summary covers five thematic areas. First, capitalism thrives in the cut flower industry which affects the workers' welfare. However, these studies have not exhaustively elaborated on the extent to which capitalism has affected workers welfare in the cut flower industry in Kenya. However, the capitalism has led to commodification of the labour power which is exchanged with wages but from the capitalists. In addition, capitalists have failed to adequately compensate the labour force which leads to unequal labour exchange. Workers are alienated from the means of production, profits and decision making regarding their packages, which had led to conflict with the owners of the farm in the cut flower industry. Although capitalism practiced in the cut flower

industry lead to sustenance of livelihood of workers and creating surplus among owners of capital, on the other hand it is a source of social degradation among workers. The wages of workers have remained ever low since the colonial times and even currently continue to remain low. The minimum wages in agricultural sector where the cut flower is located has remained low than wages in general sector. Thus wages of workers in cut flower industry is low by design. The wages of workers remain low even after immense increase in production and profits in the industry. Thus, workers in the cut flower are economically vulnerable due to low wages which cannot commensurate their labour power.

Second, a discourse on the role of Kenyan state on the workers' welfare through legislation and enforcement of labour laws in the cut flower industry was discussed. Overall, the state has been involved in sensitizing the workers however; it is not clear whether these laws have helped in protecting the workers' welfare. Workers complain of ineffectiveness of the state in implementing the labour laws thus exposing workers to exploitation. The state has been biased on advancing the interests of the owners of the capital at the expense of the workers' welfare. In some cases, the state is supposed to take care of both the workers and owners of the capital. This demands balancing the interests of workers and those of the owners of the capital. When the Kenyan state tries to safeguard the interests of the owners of the capital, it has been seen as weak due to its failure in intervening as a result, allowing pure capitalism to thrive in the industry. This scenario has led to gross violation of labour rights due to laxity of the state. Thus, to what extent can the state balance the interests of workers and the owners of the capital?

Third, discussion on the contribution of non-state actors (trade unions and Civil Society Organizations (CSOs)) on workers welfare in the cut flower industry was expounded. Non-state actors have been credited in protecting workers' welfare in the industry by protecting workers against abuse but not as effective as they are supposed to be. Non-state actors have been advocating for the adherence to the labour practice though in silence. The non-state actors have failed to make a significant difference in improving the livelihood of the workers thus exposing them to vulnerability of exploitation. To what,

extent has the non-state actors failed in the cut flower industry? There have been reports indicating a scenario of continuation of abuse of workers in the industry in spite of existence of non-state actors. Nonetheless, non-state actors have tried to safeguard the workers welfare but not convincingly although issues emanating from the workers have contributed. Thus, this study exposes a gap on why the labour union and CSOs have failed to protect workers.

Fourth, the study focuses on a discourse on the contribution of owners of the cut flower farms on workers welfare in the cut flower industry. Overall, the owners of the capital who are either MNCs or local capitalists contribute either positively on workers' welfare or negatively by exploiting them. They create employment for workers which lead to development and earning income key to their welfare. Also, the owners of the capital have been accused of exploiting workers in the industry by offering low wages and exposing them to poor working conditions. However, the contribution by the owners of the capital on workers' welfare remains vague. The MNCs and local entrepreneurs despite making immense profits, the benefits are not seen to trickle down to the workers by improving workers' welfare. Nevertheless, to what extent have they contributed to workers' welfare?

Fifth, the treatise on the influence of the market accreditation agencies on workers' welfare was discussed. The certification of the cut flower farms has at least improved workers' welfare. However, still the workers are being exposed to unfavourable working environment. Thus, the effectiveness of market accreditation agencies in safeguarding the workers' welfare has been questioned. The compliance to standardization codes laid by the accreditation agencies seem not to work as per the expectations of the workers. Even though the farms are accredited, there is lack of compliance which has affected the working environment of workers. Thus, why compliance to the standardization codes seem to fail? The next section explores the theories which inform the debate on workers' welfare in the cut flower industry.

2.3 Theoretical Framework

In this section, three theories are discussed to inform the debate on determinants of workers welfare between workers and the owners of capital in the cut flower industry in Kenya. These theories are: Marxist; Social Exchange and Voice, Exit and Loyalty theories. Marxist theories explain the relations between workers and owners of capital in the cut flower industry while the Social Exchange Theory facilitates the analysis and application of exchange between the capitalists and workers in the cut flower industry. The Voice, Exit and Loyalty Theory is applied to show the mode of response to the working environment by workers on their welfare in the cut flower industry.

2.3.1 Marxist Theory

The major Marxist theorists included Karl Marx, Friedrich Engels, Vladimir Lenin and Antonio Gramsci. Marxist Theory was developed in 1843-1844 when Marx viewed the proletariat as an emerging force of a revolution. He viewed that the development and material life is important. Marx was concerned with promoting the progress of society by solving the problems of change brought about by the conflict between the capitalists and workers (Hoffman, 1975). However, this change did not take place. In his earlier preoccupation, Marx saw human condition under capitalism as being characterized by alienation where a worker is moved away from the world, place of work, profits, family and fellow workers (Ollman, 1976). Marx was arguing that workers are isolated from all they may consider as important in their life. The theory helps to inform the discussion on the current relations between workers and employers and the changes which come up, as illustrated by Burns (1966). According to this theory, the workers bargain for better deals whereas the owners of capital upgrade their way of capital accumulation. This theory Haralambos and Holborn (2008:9) "became increasingly influential in sociology following the decline of functionalism, partly because it promised to provide answers that functionalism failed to provide, and partly because it was more in keeping with the tenor and mood of the times".

Marxist theory was based on development of capitalism where it examined the relations between the capitalists and workers. According to Popper (1966), Marxist theory aims at

predicting the future course of economic and power- political developments and especially of revolutions. However Marx did not deal real practical economics, thus, remaining at abstract level. In the theory, the capitalists own the means of production and sell the products at profit. The workers, on their part, possess labour power which they sell to the owners of capital in exchange for wages. Marx in his theory, the relations of production was based on class relations whereas there was the dominant class and the subordinate class (proletariat). The dominant class (the bourgeoisie) owned the capital and surplus while the subordinate class was forced to put the labour energy for the purpose of making profits which were never shared leading to exploitation. In Marxist theory, Marx listed the following societies: primitive, slave, feudal, and capitalist, analyzed in accordance with basic relationships that define systems (Farganis, 2014). Finally, once the conflict between the bourgeoisie and proletariat escalate the working class would become conscious of the fact that they are exploited and overthrow the capitalist society hence establishing a classless society.

In his presentation and application of Marxist theory, Burns (1966) argues that the common base of the theory is the struggle between the two classes; 'Haves' and 'Have-nots' (owners of capital and workers) which is a principal driving force of development in the society, a position that is eminent in the cut flower industry. Marx believed that capitalists competition lead to accumulation of capital which means increased productivity, increase of wealth and accumulation of wealth to few hands. On the other hand, increase of pauperism and misery among workers as workers are kept on starvation or subsistence wages (Popper, 1966:166).

However, the theory suggests that there is exploitation of workers because the number of workers in search of employment always surpasses the demand of job market thus challenging the market ability to absorb them. A study by Burns (1966) contrasted Marxist conception that labour time put in by the workers determines the exchange value, given that exchange value is relative from one firm to the other. This has been confirmed in a study by KHRC (2012) in the cut flower industry where the employees work for long hours without compensation for extra hours. However, in this study majority of workers

do not work for long hour, they work eight hours a day which is the legislated working hours. Therefore, the capitalists' profit is derived from exploitation of labour and the profits accrued by the capitalist are not apportioned to the workers. As a result, the productive activity is appropriated by the capitalist, leading to alienation or separation of the worker from the activity. As a result, the capitalists sell the products at a profit which they appropriate, as the owners of the means of production. Consequently, the profits derived from the output of the workers go to the capitalists hence out of reach for the owners of labour.

Marxist theory is shrouded with alienation of workers by the owners of the capital from the means of production and surplus which have effect on workers' welfare. This is because workers neither own the means of production nor the surplus made, whilst the capitalists own capital, control over it and strangle the surplus from the workers (Ritzer, 2000). The workers are thus alienated from the productive activity and the surplus thus becoming depressed. In the cut flower industry the proletariat do not control the power to improve their welfare since their wages remain low and their working conditions poor, despite the immense profits made by the bourgeoisie (Oxfam, 2013). "*Alienation according to Marx is any state of human existence which is 'away from' or less than' a defect which ought not to be* (Ollman, 1976:132)" Some of the aspects of alienation which are found in cut flower industry lack of decision on surplus made in course of production from the owners of the capital (Odhong' and Omollo, 2014). As a result of consequences of alienation, a class struggle between the workers and the owners of capital. Marx argued that the labour power could help in realization of material needs and provide opportunity for the workers to display their innovativeness and creativity in production under a more conducive environment. On the other hand, the capitalists should appropriately pay the workers for their labour (Farganis, 2014). This scenario is yet to be the case in the cut flower industry in which unfavourable working environment result to conflict between workers and owners of capital. If Marxist theory was to prevail in terms of envisaged outcomes, there would be favourable workers' welfare, with appropriate compensation for hours worked rather than alienation and exploitation.

In the Marxist discourse, there are two classes which are the capitalists and the workers referred as the Bourgeoisie and Proletariats. The two are always in conflict with each other as they pursue incompatible interests in the production process. In application, the capitalists are the owners of the farms in the cut flower industry and the workers own the labour energy. The capitalist aims at securing their power and maximizing the profits from their capital while the workers always agitate for better package. Such demands at times lead to conflict between the two groups. Karl Marx argued that people come together when they are in full contradiction with their antagonists (Tarrow, 1994). However, this has not been the position in cut flower industry where workers rarely rise to deal with exploitation propagated by the farm owner (the capitalists). The theory is useful in the presentation of the non-parities presented above, except that the empirical situation in the cut flower industry has not matured to the point of revolution advanced by workers on capitalists. Therefore, Marxist theory unravels the antagonist situation between the workers and owners of capital in search of realization of favourable working environment in the cut flower industry.

According to Marx, the state is an organ of class domination, an organ for oppression of one class by another and therefore oppressor of the workers by the owners of capital (Popper, 1966:118). In Kenyan cut flower industry, this view by Marx might not be as the state has laid down labour policies to control the excesses of the capitalists (owners of the capital).This position was further reiterated by Elster (1978), who argued that the state works for the survival of the capitalism where it favours the owners of capital at the expense of workers. However, the state has to play an intermediary thus neither hurting the workers nor the owners of the capital. Both actors in the cut flower industry are important for their survival as none can exist independent of the other (workers and the owners of the capital). On the contrary, Marx's view is not tenable especially in Kenya where the state has created social institutions and policies aimed at protecting both the workers and the owners of cut flower farms. The Constitution of Kenya (2010) Chapter Four on the Bill of Rights, lays down the rights and fundamental freedoms which are supposed to be adhered to by both workers and owners of capital (RoK, 2012a). Thus, the

reality might be that the institutions working under the state are the cause of exploitative scenarios of workers in the cut flower industry.

Marxist theory helps in understanding the dynamics of capitalism and important relationships including the change taking place in the contemporary world of the workers and owners of capital. Thus, the theory harmonizes the functioning of the two partisan classes in their labour and capital based conflict relationships which brings gradual development in the livelihood of both classes. This is in agreement with Fuchs and Mosco (2012) who have categorized the key aspects of Marxist theory into class, class struggle, surplus value, exploitation, commodity/commodification, alienation and labour.

Marxist theory therefore, explains the context of class struggle between the property-less and the owners of capital that's the owners of the cut flower farm in cut flower industry and the workers. Secondly, it explains how workers are alienated from the production process at play in the cut flower industry. It also explains the class struggle in the industry between the owners of the cut flower farms and workers, putting straight the notions of Marx in presentation of current manifestation of capitalism in the industry. Finally, Marxist theory articulates the effects of class struggles between the workers and owners of the cut flower farms in the industry. Put positively, the theory shows an important role played by the non-state actors especially the labour union and civil society organization in awakening the class consciousness of the workers as Marx had predicted (Popper, 1966). Following is Social Exchange Theory, which expounds the discussion on the interaction between the owners of capital and workers.

2.3.2 The Social Exchange Theory

The basis of the theory is utilitarian thought which views men as rational beings seeking to maximize their material benefits in free and competitive market place by choosing the most appealing based on calculation of cost and benefits (Abraham, 1982:144). The proponents of Social Exchange Theory in sociology were George Homans and Peter Blau. The theory was expounded by Homans in 1950 when he formulated it, basing his argument on the proposition that any interaction between individuals influences a

particular behavior among human beings in society (Kane-Urrabazo, 2006). Consequently, Homans cited in Cook and Rice (2003:54) defined social exchange "as the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons." Homan's propositions of the social exchange theory were based on past history of success, of stimulation, the value of an action and acquisition of values which affect the current behavior of a person (Abraham, 1982). In the cut flower industry, when workers' welfare is favourable, the workers are likely to end up working harder hence maximizing the output hence increasing the profits of the firm. On the contrary, poor workers' welfare lead to low production emanating from unproductive hours resultant from low morale of workers and industrial strike. The situation affects negatively the labour productivity due to high labour costs as enumerated by Odhong' and Omolo (2014). The main interest of Homans in this theory was "in the reinforcement patterns, the history of rewards and costs, which lead people to do what they do" (Ritzer, 2000:65). Social Exchange Theory, according to Homans has five basic propositions which set up the study of social behaviour in terms of rewards and punishments. These include: success, stimulus, deprivation-satiation, value and finally, the rationality.

The exchange relations depend on how rewards are maximized and costs are minimized. These basic propositions as promulgated by Homans can be applied to the cut flower industry as follows: the success in social exchange theory is based on the fact that a worker is employed in the industry due to availability of a job which gives him/her an opportunity to get wages and the hope of getting wages in the concurrent months. The cut flower industry offers job opportunities to the population where the unemployment rate is approximately 39.1% (UNDP, 2017).

This means that every person looks up to an opportunity for formal employment, hence a success to land jobs. The stimulus states that in case an occurrence of a particular stimulus has been the cause of reward of person's action, then a stimulus which is related to the previous one will more likely lead a person to perform the current action (Abraham, 1982). Thus, a worker will continue to work in spite of the unfavourable working environment in the industry, taking all necessary precautions to avoid losing a

job. The latter is highly priced privilege therefore revealing that the more valuable an action is to a person, the higher the likelihood of performing it. Therefore, he / she continues to work in spite of the difficulties in the sector, which she / he chooses to do, depending on the degree of value attached to the opportunity. Further, the outcome of an action whereas the more often a person has received a reward, loses its value as an individual continues to receive the same reward in future. This view can be deduced from Riddselius (2011:34) who observed that though workers felt that the situation in the cut flower industry was *"pathetic, the industry has really grown to almost being the best industry in terms of worker protection, minimum wages, and general conditions of health and safety of the workers."* Finally, in choosing between the alternative actions, the choice is determined by the greatness of its value of doing it and the probability of getting it (Abraham, 1982). Eventually, the higher the degree of value of an action as perceived by an individual worker, the more likely the rationality of choosing it (Cook and Rice, 2003). In support of this, Emerson (1976) observes that an individual makes a choice of action based upon prior deliberation of the expected outcomes. Therefore, an employee in cut flower farm will consider workers' welfare as appealing despite the shortcomings in the industry like low wage and poor working conditions.

In the cut flower industry, the owners of capital are thus seen to be engaged in social interaction with the workers. As a reward, the owners of capital expect the surplus in production while workers expect high wages and good working conditions. The reciprocal expectation is that if the workers realize high wages and good working conditions then there will be continuity of the relationship between them and the owners of capital. However, without reward, the workers may opt to end the interaction with the owners of capital. Although workers reciprocate according to the rewards or punishment, they envisage, there are other determinants of their welfare at play. These include the age and levels of education which dictate the workers' continual engagement in the cut flower industry (Dolan, 2004).

Social Exchange Theory has elaborated on the exchange transaction between the workers and owners of capital in the cut flower industry. It shows the extent of the relationship between the two actors (workers and capitalists) and their behavior in reciprocating to different social actions. However, the theory fails to elaborate on the happenings that occur immediately after the owners of capital reciprocate an action either by reward or punishment. The workers who are the weaker actors have a way of reciprocating to unfavourable working conditions which are not elaborated in this theory. Thus, the next theory elaborates on the behavior of the workers while reciprocating in engagement with the owners of capital.

2.3.3 Exit, Voice and Loyalty Theory

The proponents of Exit, Voice and Loyalty Theory as promulgated by Hirschman (1970) who state that in any relationship, there are three ways of reciprocating, namely, exit, voice and loyalty. The first option is by exit, where lack of reward leads to movement of a person away from the relationship. This phenomenon is common among workers who find it hard to forward their complaints, leading to frustration. This view is supported by Bender and Sloane (1998) who argue that the scenario is common among dissatisfied non-union workers who fail to get opportunity to voice their complaints or as in some cases when the union is ineffective leading to poor industrial relations.

The second option is by voice which is a political channel of expressing one's discontent. In Hirschman's (1970:30) definition of the voice option: "It is any attempt geared toward blocking exit from an unpleasant state of affairs which can be channeled through individual or collective petition to the management directly in charge or through labour union or human rights bodies or through various types of actions or protests, including those that are meant to mobilize public opinion."

In the voice option, an individual or collective persons practice democratic rights on the affair at the place of work. However, the voice option depends on the readiness and assertiveness of the workers or labour unions to air their contrary views to the owners of the capital. However, to what extent have labour unions taken the voice option to air the

grievances of workers in the cut flower industry considering the low trade unionism in Kenya? But workers may take an option of accepting unfavourable working conditions in anticipation of a better future (Oxfam, 2013). According to Bender and Sloane (1998:222), the phenomenon of voice is real among workers who are unionized whereas the dissatisfied ones tend to remain in their jobs and express their complaints through various voice mechanisms provided by their union. Based on views of these scholars, through the voice option, the workers are able to express their discontentment and thus as a result lead to lower job turnover, which is a common scenario in the cut flower industry. Is there room for workers to air their grievances when there is a threat of being sacked and losing one's livelihood? In the last option, a worker may opt to stay-on, even if the situation is not favourable in the hope that things will change in due course. This occurs when a worker opts to stay in a situation where workers' welfare is not favourable and therefore continues to lose or hurt due to hard working conditions. This view is well articulated in cut flower farms where workers operate in deplorable environment without having Physical Protective Equipments (PPE) like gumboots, gloves, dust coats and spraying clothes in hope that the management will buy them new ones (Riddselius, 2011:39).

In the cut flower industry, the social interaction between the owners of capital and workers is clearly grounded in reciprocity. The workers expect to get higher wages while the owners of capital expect surplus from the capital produced by the workers. When the workers are not contented with the wages, they usually have three options to choose from: exit, voice, or stick with the current situation hoping that things will change in near future. Such options have different outcomes. If the exit option is preferred the workers in the industry either move to other cut flower farms or they may opt to move to another type of industry. Other workers may opt to voice their grievances either directly to the employers or indirectly through the workers at the management level or use other political avenues like involving their trade unions. The latter option is often taken with caution. In some cases, for instance, the "workers won't say anything for fear of losing their jobs." (Dolan, 2008:287).

Workers in the cut flower industry may take the option of loyalty in their places of work, especially in situations of high unemployment rate as is currently the case in Kenya (Opondo and Hale, 2005). Accordingly, the workers may opt to persevere under the current working environment even though the working condition is poor or wages are low in the hope that things would change soon (Farrell, 1983).

In summary the three theories inform the discourse on cut flower industry in Kenya as follows; First, Marxist Theory explains the relations between workers and owners of capital in the cut flower industry and why their relation is always at conflict situation. There are two opposing groups which are always in a conflict. The proletariat is alienated from the means of production by the bourgeoisie. However, the two groups have to work together for their survival (none of the groups can survive on its own). Both the workers and the owners of the capital are always in conflict in pursuit of incompatible interests. The theory harmonizes the functioning of the two partisan classes in their labour and capital based conflict relationships which brings gradual development in the livelihood of both classes. The theory shows the important role played by the non-state actors especially the labour union and civil society organization in awakening the workers' class consciousness.

Second, Social Exchange Theory helps in understanding the application of reciprocation between the capitalists and workers in the cut flower industry. The theory sees men as rational beings seeking to maximize their material benefits in free and competitive market place by choosing the most appealing based on calculation of costs and benefits. The theory explains why workers continue to work despite prior knowledge of exploitation. The limitation of the theory is that it fails to elaborate on the happenings that occur immediately after the owners of capital reciprocate an action either by reward or punishment.

Third, the Exit, Voice and Loyalty Theory shows the mode of response by workers on their welfare in the cut flower industry. It is based on three responses which a worker can take; exit, voice or loyalty. In exit a worker looks for greener pastures, voice, a worker

uses the available mechanisms to express the discontent and loyalty, stay on in hope of change in near future. In the next section a conceptual model is used to abstract the dynamisms and social structure of cut flower industry.

2.4 Conceptual Model

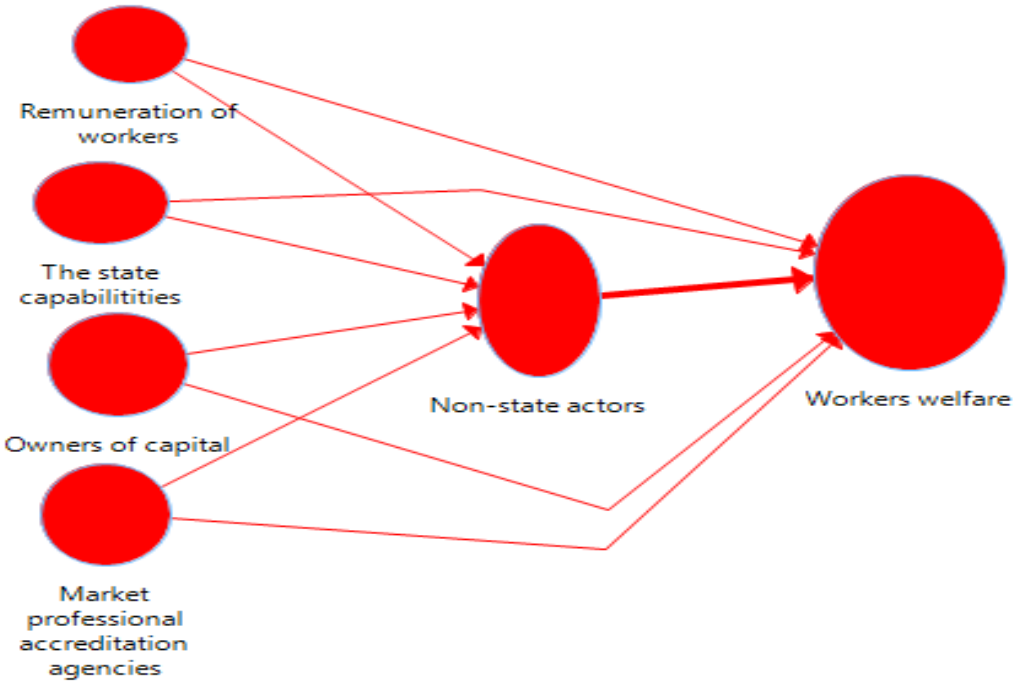
The literature review section has shown that there are several actors which affect the workers welfare. It is important to note that conceptual modeling implies simplifying the reality in the world that is fit-for-purpose (Robinson, 2010). The model aims at revealing the impact of variables by linking the independent variables with the dependent variable. The dependent variable was the workers' welfare which is affected by the independent variables. The independent variables are remuneration of workers, the role of the state, contribution of the owners of capital, contribution of non-state actors (intervening variable) and influence of the market accreditation agencies which form the basis of the study specific objectives. The study attempted to establish the extent to which protective mechanisms exist for labour in the cut flower industry in Kenya. The research questions addressed by this model were:

a. To what extent are workers' wages commensurate with their expectations in the cut flower industry?
b. To what extent is the workers' welfare protected by the state in the cut flower industry?
c. What is the contribution of non-state actors (e.g. trade unions, civil society) to the welfare of workers in the cut flower industry?
d. What is the contribution of the ownership of capital (MNCs / local entrepreneurs) to workers welfare in the cut flower industry?
e. To what extent do the market accreditation agencies influence workers welfare?

A dependent variable is a variable which the study is willing to explain or a variable reflecting the presumed effect of the manipulation of an independent variable (Singleton *et. al.*, 1988). The independent variables affect the dependent variable either directly or indirectly. If indirectly, then the effect is through activities of non-state actors, an intervening variable that ultimately influences the workers welfare either negatively or

positively. Further, the model establishes the effects of the intervening variable which is the non-state actors. The non-state actors qualify as an intervening variable as they influence the impact of independent variables on workers' welfare. They are the political option of the workers with the state, the owners of capital, and influence the market of the cut flowers. Finally, the non-state actors intervene to ensure that the remuneration of workers is commensurate with their welfare expectation. Figure 2.1 depicts a conceptual model showing the relationship between the dependent variable and each of the independent variable.

Figure 2.1: Conceptual Model



The model illustrates four independent variables which are the workers remuneration, the role of the state, the contribution of the owners of the capital, and the influence of market accreditation agencies. The four independent variables can affect the dependent variable directly without intervention of the non-state actor. Non-state actors can also influence the workers welfare directly and behave like independent variable. Thus the direct effect on the workers welfare is affected by the independent variable without intervention.

Indirect effects occur through the intervention of the intervening variable which in this case is non-state actors.

2.5 Operationalization of Variables

In this section the study variables are operationalized through identification of indicators for both independent and dependent variables. Operationalization of variables shows empirical indicators as used in measuring the variables in the study (Singleton *et. al.*, 1988). As shown on Figure 2.2 Dependent variable indicators for workers' welfare are:

(i) Workers' wages, which can be above minimum wages (high), within minimum wages (moderate), below minimum wages (Low).

(ii) Working conditions, which can be operationalized by showing supply of protective gear (Excellent), small number of protective gear (Good) no protective gear (Worse).

The indicators of the independent variables, on the other hand, are:

(i) Remuneration of workers. The study measured the workers wage; whether high or low and whether the workers are satisfied with the remuneration or not. The variable indicators include the amount of wages, and the allowances given in the farm, which are house and leave allowances.

(ii) The role of the state. The study explored the role of the state in protecting workers welfare by laying necessary legislation and enforcing the laid down policies. The variable indicators were legislature of policies, consciousness of workers on existence of policies and, finally, enforcement of the policies in the cut flower industry.

(iii) The owners of capital in the cut flower industry include the MNCs and the local entrepreneurs. The study focused on their contribution in workers welfare. The variable indicators refer to whether a cut flower farm is owned by MNC or by a local entrepreneur.

(iv) The market accreditation agencies include FLO, MPS-SQ, ICC, FPEAK, and KFC. The variable was operationalized by establishing whether the auditing agencies visit the farm and whether they affect the welfare of workers. The variable indicators are the accreditation agency or agencies in a particular farm.

The intervening variable is also referred to as the mediator. It operationalizes the hypothesized mechanisms that theoretically produce the observed association and its specification is to clarify how the independent variables affect the dependent variable (Aneshensel, 2002:2). The intervening variable in this study is operations of the non-state actors which include NGOs, labour unions, trade unions and civil rights groups. The variable indicators for non-state actors include membership of a worker in a labour union, awareness / influence by a worker in trade union, civil rights groups' involvement and labour union negotiations on behalf of the workers as elaborated in Table 2.3.

Table 2.3: Operationalization of Key Variables

Independent Variables	Intervening Variables	Dependent Variables
1.Remuneration of workers • Wages per month • House allowances • Leave allowances **2.The state** • Legislature of policies • Implementation of policies **3.Owners of capital** • Owned by MNCs or local entrepreneurs **4. Market accrediting agencies** • KFC, FPEAK, FLO, MPS-SQ, ICC • Whether a farm is accredited or not	**Non-state actors (NGOs, Labour unions, trade unions, civil rights groups)** • Membership to labour union • Workers awareness of civil rights groups, trade unions • Existence of CBA negotiations	**Workers welfare** • *Wages* High or Low • *Working conditions*- Good or poor Supply of protective gear, Housing

2.6 The Study Hypotheses

A hypothesis is an abstract proposition from which observed or observable events are logically deduced (Singleton *et. al.*, 1988: 23). It is a tentative answer to a research question that gives out an expected but unconfirmed relationship between two or more variables which can be between independent and dependent variables or intervening and dependent variable (Nachmias and Nachmias, 1996). The criterion of good hypothesis is that it is logical, use precise language and testable with research or experimentation (Trochim, 2006). It is stated either as null hypothesis or alternative hypothesis. In null hypotheses there is no relationship between two variables whereas in in alternative hypotheses there is a relation in a particular direction which can either be positive or negative (Buttolph *et. al*., 2012). In this study, the hypothesis is written in a form proposing that the actor influences the workers welfare in the cut flower industry. The study was guided by the following hypotheses:

Ho_1: The interaction between owners of the cut flower farm and workers wage has no effect on workers' welfare.

Ho_2: The interaction between the status of certification of the cut flower farm and owners of the cut flower farm has no effect on workers' welfare.

Ho_3: The interaction between the state effectiveness and non-state actors (trade union) has no effect on workers' welfare.

Ho_4: The interaction between the owners of the cut flower farm and non-state actors (trade union) has no effect on workers' welfare.

Ho_5: The interaction between owners of the capital and the state effectiveness has no effect on workers welfare.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter examines the methodological aspects of the study on which the data collection was based. Research methodology includes scientific systems that enumerate the rules and procedures which form the basis of the research, aimed at planning, execution and interpretation of empirical data (Singleton *et. al.*, 1988:65). The chapter interrogates both the quantitative and qualitative research. The triangulation methods adopted in this study helped the researcher to build on the strength of both the qualitative and quantitative methods while minimizing the weakness of each. Morse and Chung (2003:18) argue that when both quantitative and qualitative methods are combined, they bring forth objectivity, hence embracing holism in the study. For instance, the weakness of quantitative research that is lack of information due to the structuration of questions was counteracted by carrying out key interviews and focus group discussions that falls in qualitative research.

The methodological components covered in this chapter include: research design, site selection, target population, types and sources of data, unit of analysis and observational unit, sampling design, techniques and instruments of data collection, data analysis, validation and reliability of the data field experiences and finally, the ethical issues.

3.1 Research Design

Research design is the planning of an appropriate strategy for scientific inquiry which aims at achieving a specific goal of the study (Babbie, 2010). This study largely employed comparative survey research design which entails measuring perceptions and attitudes, and orientations of cut flower workers in three selected regions of Kenya. Singleton *et. al.* (1988:239) posit that survey research is done in a scenario where a large number of respondents are chosen through probability procedures. More specifically, comparative survey research design is important when comparing two or more groups in one variable. This study used comparative survey where the protective mechanisms in workers welfare by different actors were assessed.

Some of the parameters for comparative purpose in the survey were the distance from the urban area, type of the ownership of the farm, existence of strikes, unionization of workers, existence of housing facility for workers and ethnicity. The objective behind these variations was to collect a heterogeneous data for comparison purpose.

Comparative survey design is useful when the study is out to examine particular issues or phenomena in two or more geographical locations with an intention of comparing manifestations in different socio-cultural settings using the same research instruments (Bryman, 2008: 401). Further, the data help in unveiling the workers condition in the cut flower farms in both urban and rural areas.

3.2 Target Population

Target population is the "population to which the researcher would like to generalize his or her results (Singleton et al, 1988:134)." In this study, the target population constituted lower cadre workers in the cut flower industry. In total the industry has 60,000 workers employed as casuals, semi-permanent and permanent bases (Valerie, 2011). These workers spread across 160 cut flower farms distributed in 16 regions in Kenya (KFC, 2012).

3.3 Site Selection and Sampling

Kenya is a key cut flower production area in Africa, beside Ethiopia, Tanzania and Uganda. This study was carried out in the cut flower growing areas in Kenya which has sixteen main cut flower production regions. These include Naivasha, Nanyuki, Nairobi, Thika, Kiambu, Athi River, Kitale, Nakuru, Kericho, Nyandarua, Trans-Nzoia, Uasin Gishu, Machakos, Murang'a, Meru Central and Embu (KFC, 2015). These regions have different production capacities and diverse socio-economic characteristics. Figure 3.1 shows the cut flower producing regions in Kenya.

Figure 3.1: Map of Kenya indicating the cut flower growing areas

KEY

Cut flower Region

Source: KFC, 2015

The initial identification of research sites was guided by purposive sampling. For this reason, three cut flower growing geographical regions namely, Naivasha, Thika and Nanyuki were purposively selected based on their unique characteristics. The three regions are important cut flower regions of Kenya. The cut flower farms were proportionately selected from the three sampled regions.

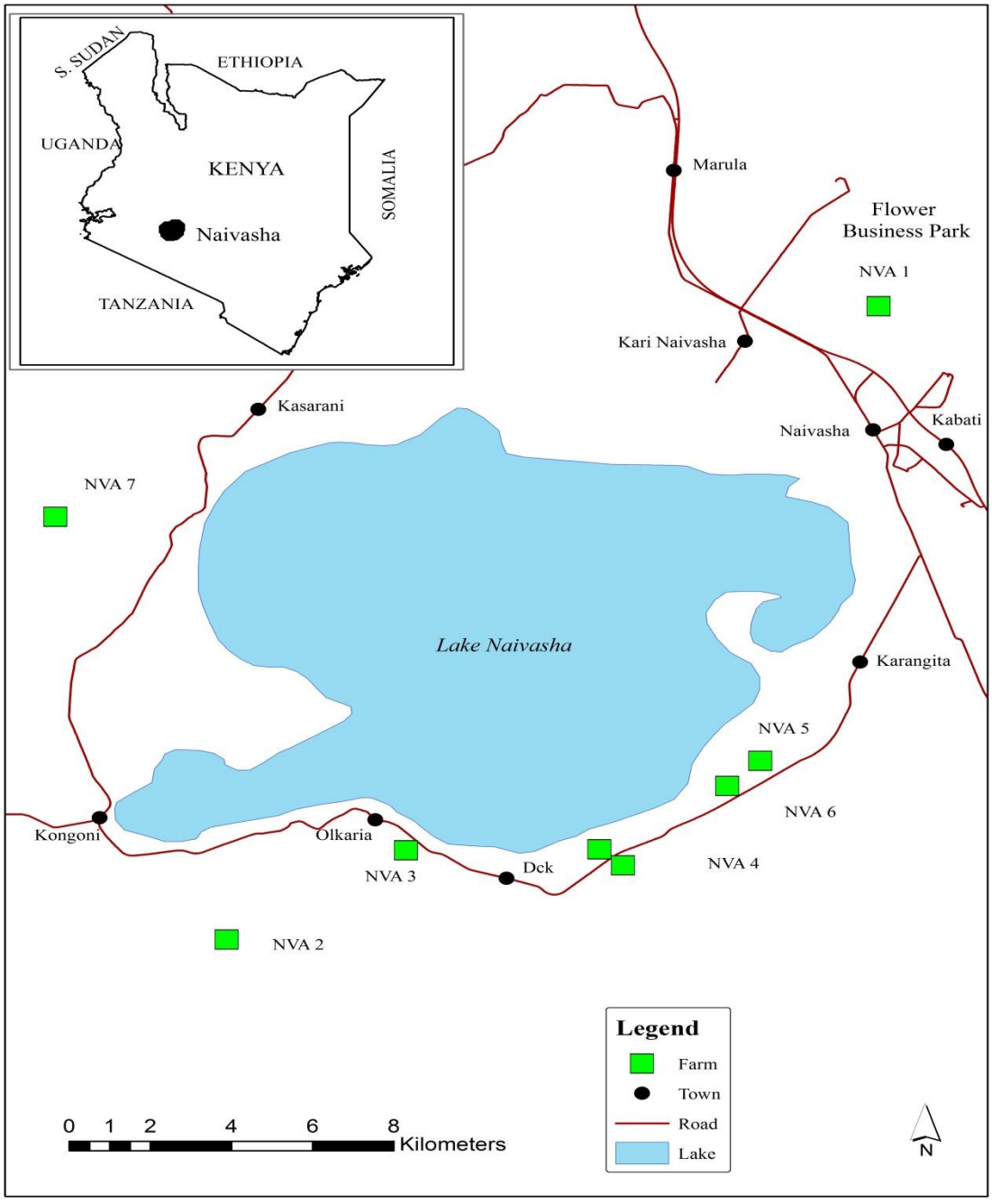
First, Naivasha is the hub of cut flower industry in Kenya and have the highest number of cut flower farms in Kenya. Second, Thika is considered as having the urban socio-economic characteristics. Its population working in the cut flower farms work in the farm and reside in rented houses in Ruiru, Juja and Thika towns. Thus, they practice urban socio-economic characteristics. As a result, the workers'' livelihood is based on consumer economy they address their needs from the wages they get from the farm. The population who lives in urban areas is relatively large and dense of socially heterogeneous individuals (Gmelch and Zenner, 1996). Finally, Nanyuki was selected as the majority of the population working in the cut flower farm has rural socio-economic attributes whereas after working in the farm they reside in their own houses.

In the three selected region a total of thirteen cut flower farms were purposively selected. In Naivasha region, seven farms were purposively selected to capture the diversity of the region having in mind that the region has the highest number of farms. Thika was second in terms of population of the farm thus selecting four farms from the region. The cut flower farms were purposively selected. The population working in these farms were living as urban dwellers where they worked and live in rented houses in the urban centres. Finally, in Nanyuki region, two farms were purposively selected which were located in the rural area and ethnicity. The total number of cut flower farms selected in the three regions was 13 cut flower farms.

Naivasha, located in Nakuru County is one of the key cut flower growing in Kenya and also in East Africa with 872.5 hectares under flower farming. It is the oldest cut flower growing region and leads in production of the cut flower as it holds over 60 cut flower farms, all distributed around Lake Naivasha area which is characterized by favourable soils and climate for the cut flower production (RoK, 2009:7). The region is situated around 100 km North West of Nairobi in the Great Rift Valley, along the Nairobi-Nakuru Highway and approximately one hour drive from Nairobi, the capital city. It has an altitude of 1,800-2,000 meters above sea level, with temperatures ranging between 7.3-22.7degrees Celsius and rainfall ranging from 156.0-1134.0 mm/month distributed all year long (Bolo, 2006). Almost 50 per cent of the cut flower grown in Kenya is produced

in the Naivasha area through irrigation. The region is dominated by the migrants. The selected farms in Naivasha region are shown on Figure 3.2.

Figure 3.2: Location for sampled farms at Naivasha



Source: Department of Geography Library (UoN)

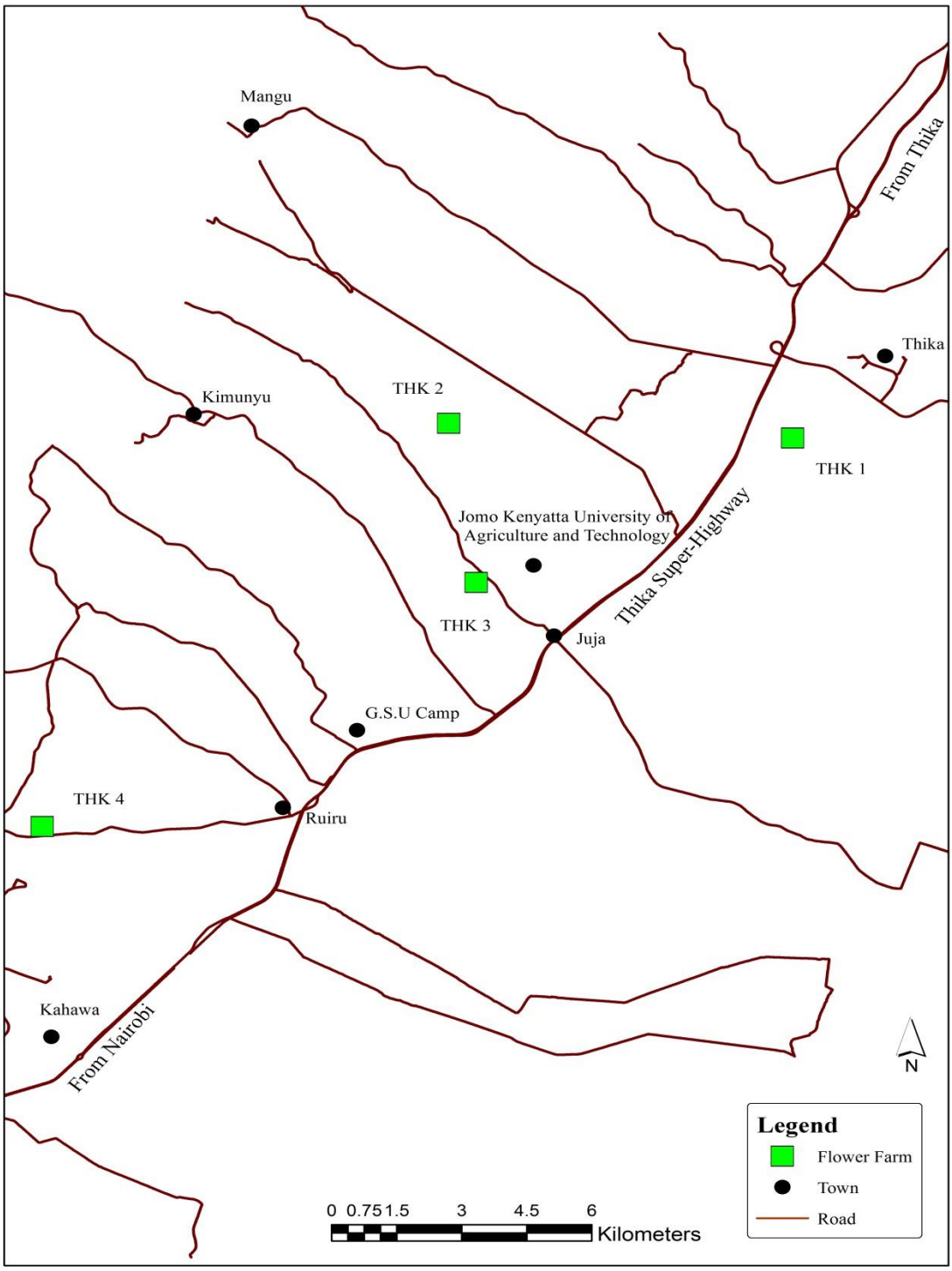
Within Naivasha (NVA) cut flower growing region, the study selected a total of seven cut flower farms, namely; NVA1, NVA2, NVA3, NVA4, NVA5, NVA6 and NVA7. The farms were purposively selected according to diverse characteristics which were near urban (Naivasha), size of the farm, unionization of workers, history of workers' strikes, small multinational farm with low number of workers, have highest number of farms in Kenya and a farm located in the rural area hence furthest from the urban. First, NVA1 was located less than a kilometer from Naivasha town; second, the NVA2, was owned by a local entrepreneur and was the oldest farm in the region and largest in cut flower industry in Kenya. Third is the NVA3, owned by a local entrepreneur and not unionized. Fourth, the NVA4 was a Multinational company and known to have experienced the highest number of the strikes among all the flower farms in the country. Fifth, NVA5 was a multinational company. Elsewhere in Africa the farms are located in Ethiopia whereas the mother farm was found in Colombia. The NVA6, a multinational company, has the highest number of farms in Kenya. Finally, NVA7 a multinational company, located at the Northern side of Lake Naivasha in the rural area, it was the farthest from Naivasha town. The mother farm of the latter was found in Colombia. In Naivasha, the study covered a total of seven farms which had diverse characteristics as shown in Table 3.1.

Table 3.1: Cut flower farms covered in Naivasha

Cut Flower Farm		Unique Characteristics	Remarks
1.	NVA1	Owned by a local entrepreneur. A Small farm with approximately 300 workers. On the southern side of Lake Naivasha. Located near Nakuru highway.	The management was cooperative. Gave us (Researcher and research assistants) chance to interview its workers at their place of work. The workers did not have a problem during interview.
2.	NVA2	Owned by a local entrepreneur. The biggest farm with an average of approximately 2000 workers. It is the oldest farm in Naivasha	The management restricted the research team from accessing the farm in order to conduct interviews. The research team waited for workers as they were coming from work. Most of the workers were comfortable in participating in research in comparison with all other workers in other farms.
3.	NVA3	Owned by a local entrepreneur. Most of the workers were not unionized.	The management denied the research team permission of carrying out the interviews. Interviews were carried at workers place of residence.
4.	NVA4	Multinational farm. The workers had housing facilities. It had majority of the strikes cut flower farms in the country.	Workers complained of working in extremely poor working conditions. The access to the flower farm was not granted and therefore, research team carried the interviews at their place of residence.
5.	NVA5	Multinational farm from Colombia. It was the smallest farm.	Management allowed the research team to interview the workers in the farm. However, workers were not comfortable with interview being carried out at their place of work. The research team later decided to interview them at their place of residence.
6.	NVA6	Multinational farm. Had the highest number of farms in the country (5 farms). Most of its workers were not members of trade union.	The management denied access by the research team. Further, workers feared being identified while participating in the research. They were interviewed at their place of residence after being dropped by the company buses.
7.	NVA7	A Multinational farm. Farthest from Naivasha town. Located at the Northern lake of Naivasha.	The management denied research team access to the farm. Workers were afraid of participating in research. They were interviewed at their place of residence.

Thika (THK) region was selected purposively due to its geographical diversity. The town is located 40 kilometers North of Nairobi, Kenya's capital (UN-Habitat, 2015:19). Majority of the farms in Thika are located in the following areas: next to Thika town, around Ruiru town and Juja town which all carry urban characteristics. The area was selected due to its geographical diversity and its urban socio-economic characteristics of the population. The population in Thika is influenced by the population from Nairobi City which possesses the urban characteristics. Figure 3.3 shows the location of the selected farms at Thika which include THK1, THK2, THK3 and THK4.

Figure 3.3: Location for Sampled Farms at Thika



Source: Department of Geography Library (UoN)

At Thika (THK), four cut flower farms were purposively sampled due to geographical diversity and its urban socio-economic attributes of the population working in the farms among other parameters. These parameters were nearness to Thika town, history of workers strike, a farm with highest number of farms in Thika region and provision with housing facility by the farm. These cut flower farms were: (a) THK1 located near Thika town, the farm neighbors Thika town. (b) THK4 was located near Ruiru town. The farm had never experienced a strike; and (c) THK3 was located at Juja town. It had majority of cut flower farms at Thika. And finally, THK2 was located at Ruiru area. It was the only cut flower farms at Thika that offered workers with the housing facility.

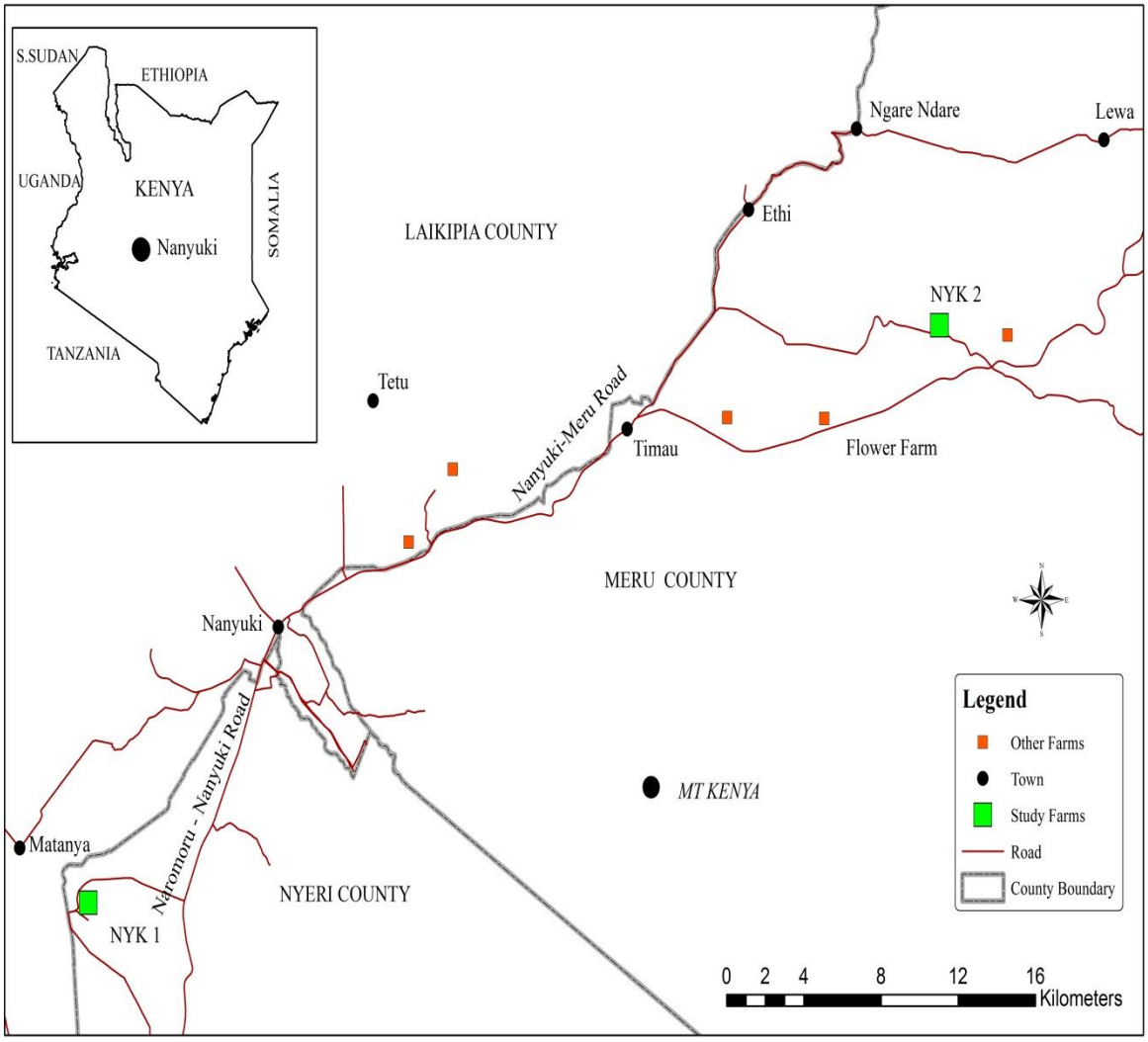
Nanyuki (NYK) region was the third cut flower zone (region) purposively selected due to its rural socio-economic characteristics. It is located 207 km North of Nairobi, in the Central Division of Laikipia County which covers 2,355 Km^2. The area experiences relief rainfall of around 750 mm and is situated on the equator on the north western slope of Mount Kenya at about 1930 metres above sea level (Gatari and Boman, 2003). Most of the workers in the selected farms reside in their rural homes and therefore constitute a rural population. The people working in the cut flower farms at Nanyuki region are local residents who hail from the surrounding areas. There is minimal migration of workers from other counties to Nanyuki in search of jobs in cut flower farms. Further, by selecting two farms where the surrounding population was of different ethnic groups, the study wanted to control for ethnic composition in the final sub-sample and thus can be generalized even in other regions.

At Nanyuki region, the researcher purposively sampled two farms which were located deep in the rural areas to control the rural parameter which was the basis of sampling farms in this region. To ensure heterogeneity of the sampled farms, the researcher selected farms that were at the edge of the Nanyuki region. This geographical variation in the sampled populations ensured that the data collected can be generalized to other regions bearing similar socio-economic characteristics. Cut flower farms in Nanyuki are located at the sides of Nyeri-Nanyuki road. Thus, the researcher selected the first farm which was at the rural area and farthest from Nanyuki town (South West of Nanyuki

town). The area surrounding was dominated by Kikuyu ethnic group. Thus, NYK1 flower farm was the first to be selected and was located South West of Nanyuki town whose population had rural socio-economic characteristics an area populated by Kikuyu ethnic group.

The second cut flower farm was selected from a rural area at the opposite side of Nanyuki town (North East of Nanyuki town) where the majority of the population surrounding the farm comes from Meru ethnic group. The NYK2 farm was the second to be selected and was located at the North East of Nanyuki town, whose population practiced rural socio-economic livelihood. Majority of people living around NYK2 farm emanate from Meru ethnic group. The researcher wanted to establish whether besides the cut flower farms having the rural socio-economic characteristics were affected by ethnic composition due to the location hence having impacts on workers welfare. Figure 3.4 shows the two selected farms from Nanyuki region which are NYK1 farm and NYK2 farm.

Figure 3.4: Location of Sampled Farms at Nanyuki



Source: Department of Geography Library (UoN)

NYK1 farm is located at the border between Nyeri and Laikipia counties. Actually, most of the workers had their residence area in Laikipia County. The decision to sample the farm was informed by ethnic composition of the area surrounding the farm. Further, the farm was at the rural setting whereas the expectation was that most of the workers were residing in their houses after work which was not the case. The population surrounding is of Kikuyu ethnic group.

The second farm, NYK2 was located at the boundary between Meru County and Laikipia Counties. The population surrounding NYK2 farm was of Meru ethnic group. Majority of the workers in the farm were of Meru ethnic group. The farm is located in the rural setting. The hypothesis of the study was that employees working in the farm were residing in their homes after retiring from work. On the contrary, most of the workers were staying in rental houses. The local language used in the area was Kimeru. Both farms were supervised by Labour Officers from Nanyuki town (Laikipia County). The justification of the selection of the two cut flower farms in Nanyuki region was first rural socio-economic characteristics which were controlled by ethnic factor. Ethnic factor is important in establishing the socio-economic characteristics of people.

3.4 Sampling Design

Proportionate sampling was used to select workers in the cut flower industry from the three sampled regions. In Kenya there are 60,000 workers in the cut flower industry whereas the three regions sampled had a total of 48,600 workers. The total number of workers in the cut flower industry in the three sampled regions was distributed as follows: Naivasha (30,000); Thika (10,000) and in Nanyuki 8600 (See Appendix 1). Proportionate stratified sampling which is a probability sampling technique was used to determine the workers in the cut flower industry from the three regions with an addition of sample size from each region.

At the beginning of the study the researcher had proposed to sample 300 workers for the interview in cut flower farms in the three regions. The sample size of 300 was arrived at in consideration of the resources available during the study, and diversity of the sample emanating from three different regions which were Naivasha, Thika and Nanyuki. However, during the study, the researcher increased the sample size from 300 to 358 in order to reduce sampling error margin which was informed by ease of data collection in a region as follows.

NAIVASHA *THIKA* *NANYUKI*

$$PS = (\frac{30,000}{48,600} * 300) + 11 = 196 \quad PS = (\frac{10,000}{48,600} * 300) + 46 = 108 \quad PS = (\frac{8,600}{48,600} * 300) + 1 = 54$$

V The lowest sample size in a cut flower farm was 26 (twenty-six) whereas the highest was 30 (thirty) respondents. This is in agreement with Rudestam and Newton (2001), who argue that 20 (twenty) to 30 (thirty) participants constitute reasonable sample depending on the size of the population. This decision was purposively informed by the status of the farm as shown on Tables 3.1. Therefore the sample size of workers in different areas was as follows: Naivasha (196 workers); Thika (108 workers) and Nanyuki (54 workers). The total number of sampled workers in the three selected regions was 358. This sampling technique ensured proper representation of workers from the three regions (Nachmias and Nachmias, 1996).

The workers from the thirteen sampled farms were selected for interviews. However, to reach out the cut flower workers, the research team was faced with two distinct options. In a situation where the management of the selected cut flower farm was uncooperative with research team or workers felt unsafe or uncomfortable to be interviewed at place of work, the research team would stand at a strategic position and wait until the workers left the flower farm at 2:00 p.m. and 5:00 p.m. Each member of the research team would identify the workers and follow them as they walked to their homes where the interviews would take place or any other place of their convenience. Snowball technique was used to select workers at 12 cut flower farms. At NVA5 farm, the management was cooperative; but workers were not comfortable to be interviewed at their place of work or within vicinity of the farm. Therefore, the research team decided to interview them at place of residence to enhance the external validity of the data. This option was replicated in all the other eleven farms. At Thika region, the selected farms where the first option of selection of workers was used included THK1, THK2, THK3 and THK4. And finally at Nanyuki region, in the following selected flower farms NYK1 and NYK2, the first option of the workers sampling process was used.

In the first option of reaching the workers, the research team used snowball sampling method, as the administration of the farm denied them access to the farm or workers were not comfortable for interview to be carried near their place of work. Workers were identified as they moved out of the gate of the cut flower farm. Afterwards, the workers identified helped the research team to locate other workers from their place of residence. Some of the workers would be interviewed on their way to their houses. This was in line with Valerie, Adrienne and Joachim (2005:541) who had found that the impact assessment of flower farms was problematic because managers feared people coming from outside the farm against fears of media exposure and NGO campaign. There is also the culture of secrecy in the farms as workers fear discrimination and loss of employment should they be found to participate in an unauthorized interview on issues related to the farm. In support of this view, Lund-Thomsen (2013) argued that in order to secure interviewee anonymity, the workers need to be interviewed away from their place of work to control open criticism by their fellow colleagues or getting any sort of punishment from their employers. Consequently, the researcher and research assistants opted to interview the workers at a convenient position to boost the respondents' participation. It was easy to conduct workers' interviews in this farm.

The second option of sampling of the workers from the selected farms was carried out in a farm which allowed the research team to access it. This was only viable where there was good cooperation between the management with the research team. Only one farm among the thirteen sampled cut flower farms cooperated with the research team and thus, allowed them to continue with sampling of the workers for interviews. Therefore, the management of the NVA1 farm cooperated with the research team and provided them with the sampling frame of workers for the sampling purpose. The sampling was conducted using simple random sampling where workers were interviewed with the help of four research assistants because the farm was small. The interviews were carried out in the farm at a private place at the far end greenhouse which was not used during the time of study and was out of the vicinity of the management.

Third, the research team purposively sampled key informants from the three regions, based on their experience and knowledge of working environment of the workers in cut flower industry. The key informants sampled from the area included the human resource managers, the union labour officials and the officials from the Ministry of Labour. Purposive sampling is designed to provide maximum amount of information possible for study subjects (Kombo and Tromp, 2006). Table 3.2 shows the key informants who participated in this study.

Table 3.2: Summary of Key Informants Selected for the Study

Organization / Place	**Naivasha**	**Thika**	**Nanyuki**	**Type of data collected (Qualitative)**	**Total**
Human resource managers from Cut flower farms	5	3	2	Primary data	**10**
Labour union officials (KPAWU)	1	1	1	Primary data	**3**
Ministry of labour official/s	2	1	1	Primary data	**4**
Kenya Flower Council	The chair person			Primary data	**1**
Total	**8**	**6**	**4**	**Primary data**	**18 KIs**

In Table 3.2, a total of eighteen key informants were selected and interviewed. The key informants were purposively selected based on their knowledge of the phenomenon under study on workers welfare and their interaction with workers issues. Therefore, a total of ten human resource managers from the three sampled regions were interviewed. Further, the study collected primary data from three labour union officials from Kenya Plantation and Agricultural Workers Union *(*KPAWU*)* who were in charge of the three selected regions under study (Naivasha, Thika and Nanyuki regions). These union officials offered information regarding the working environment between workers and owners of capital from their respective areas.

Further the primary data in form of qualitative data was collected from four Ministry of Labour officials who were available during the period of the study. Ministry of Labour officials offered the qualitative data on the relationship between workers and the owners of capital. Further, they offered data on the government contribution in the industry on workers welfare. Finally, the researcher interviewed the Chairperson of the Kenya Flower Council (KFC) as a key informant. In total, eighteen key informant interviews were conducted.

Finally, the research team conducted Focus Group Discussion (FGD) with workers in the cut flower industry. The researcher engaged workers from the three sampled regions (Naivasha, Nanyuki, and Thika) from different farms and formed three Focus Group Discussions, one from each region. In three regions, the FGD's were conducted in a hotel, which the researcher had leased while conducting the survey in a particular region. In Naivasha, the research used a hotel at Kamuru, in Thika a hotel at Thika, and at Nanyuki, the FGD was carried in a Hotel at Nanyuki. These hotels were selected on basis of accessibility the FGD participants. The FGD were conducted after the research team was through with the survey in a particular region. The participants selected in the three FGD were worker of lower cadre. Each of the FGD comprised eight workers both male and female sampled from different cut flower farms. The research team purposively selected at least one worker per farm. The members of the FGD were purposively selected based on their availability and gender representation. Selection of at least one worker in a cut flower farm was aimed at enhancing objectivity during the discussion. Interview guide was used during discussion (see appendix 3).

The researcher was the facilitator in each of the discussion in the three selected regions while the research assistants took notes and audio recorded the discussions. Each of the participants was given a chance to respond to themes contained in the interview checklist. The members of the FGD gave a broader perception of workers on their welfare in the cut flower industry. The research team took notes as each of the FGD was taking place and also used audio recorder to record the discussion. The recorded discussion was transcribed. The FGD data was used to address gaps in different thematic issues on

workers' welfare to enrich quantitative data. The researcher used the FGD data as part of verbatim data used in this study. Both FGDs and KIIs provided qualitative data to supplement the quantitative data collected using the questionnaires.

3.5 Types and Sources of Data

In this study both primary and secondary data were collected. Primary data was obtained from the sampled workers, key informants and focus group participants. Workers in the cut flower farms provided the quantitative data which is supplemented by qualitative data collected from the key informants. Quantitative primary data was obtained through interviews of selected workers from the 13 farms. Qualitative primary data was obtained from 18 key informants selected from the three regions. In addition, qualitative primary data was sourced from the three Focus Group Discussions conducted one from each region which comprised of 8 members each.

Finally, the secondary data was collected from the internet and other books from the library. The researcher consulted different articles related workers welfare in cut flower industry in Kenya. Further, the available manuscripts on Marxist theory were interrogated. In addition, data related to social exchange and Exit, Voice and Loyalty theory was sought to give wide overview of the two theories. It involved reviewing of relevant literature on issues related to workers in the cut flower industry. Secondary data was used to inform the study on what has been happening in the cut flower industry and predict future of the industry. In addition, the secondary data informed this in thematic area on: the role of the state, contribution of the certification body in the cut flower industry, the role played by the trade union and CSOs, contribution of the owners of the capital on workers welfare and finally data on remuneration of workers in Kenya. In addition, the data on production statistics was obtained from HCDA which helped to understand the patterns of production and the growth of the industry. Secondary data is used to give the theory on the discussion of workers' welfare.

3.6 Techniques and Instruments of Data Collection

The study used largely quantitative techniques of data collection. These techniques comprised direct or personal face to face interviews of workers as basis of survey for quantitative data. Quantitative data was collected through interviews of workers in the cut flower industry using a standardized questionnaire for survey (See Appendix 2). The questionnaire was administered by the research team to the workers at their place of convenience.

The research team accessed the respondents in two ways. First, in the farms where the research team was facilitated by the management, the management availed the sampling frame to the research team. The researcher used simple random sampling to sample the respondents because the number of workers was small in the farm. The sampled workers would be interviewed by the research team using the questionnaire where each of the members of the research team would interview one respondent at a time. Each interview took approximately 50 minutes.

Second, in the farm where the research team was not given access, the research team would establish workers as they were coming out of the gate. The research team member introduced himself/herself using the research permit and other relevant identification documents. Then the respondent would be informed of the importance of the research. Finally, when the respondent was satisfied, the research team member would request the respondent for a convenient place for the interview and the interviewer would proceed with interview. After completing filling the questionnaire, the researcher would request the respondent to identify another worker from the sampled farm and the interview would follow the same procedure.

Qualitative data was obtained from key informants and Focus Group Discussions (FGDs) using interview guides (See appendix 3) to complement quantitative data. The key informants included: human resource managers, labour union officials, labour officers, and labour inspectors from the Ministry of the Labour and, finally, the Chair of KFC. The research team booked for an interview with the key informants. During in-depth

interviews the researcher would take with him a key informant guide where he would carry out interview with the key informant and one of the research assistant would be taking notes. The key informant interview guide helped in capturing qualitative data that was not captured in the questionnaires.

Further, the researcher conducted FGDs with workers from the three selected regions. FGDs "very frequently bring out aspects of the topic that would not have emerged from interviews with individuals" (Babbie, 2010:250). The FGDs were organized using standardized instruments which covered a narrower range of issues than those covered in the questionnaires. The researcher was the facilitator during the FG discussions. The research assistant wrote notes on each of the three FG discussions. The data collected from key informants and FGDs is used to fill in the gaps in quantitative data as well as provide insights and further facilitate interpretation of quantitative data.

3.7 Unit of Analysis and Unit of Observation

The unit of analysis is that which the study attempts to understand (Singleton *et. al.*, 1988:130). In this study, the unit of analysis was the workers' welfare (which includes wages, working conditions and labour relations) of workers in the cut flower farms. On the other hand, the unit of observation is the person or object from which the information is collected (Singleton *et. al.*, 1988; Babbie, 2010). In this study units of observation were the workers from the selected cut flower farms and key informants as specified.

3.8 Data Analysis

Quantitative data was edited, coded and analysed using SPSS (Statistical Package for the Social Sciences) version 20 and Stata version 17. Three levels of analysis were adopted, viz: Univariate, Bivariate and Multivariate. At the univariate level, data is analysed to offer basic description of the study. It entails dealing with only one variable at a time with a view to describe or give out characteristics of the variables under study (Babbie, 2010:250). It provides the important statistics for the study which shows the socio-demographic profile of the unit under study. Basic descriptive statistics at this level used were measures of central tendency and percentages.

In Bivariate level, two variables are analysed (denoted as X, Y) to assess the empirical relationship between them (Singleton et al, 1988:397). At this level two variables are compared to show the effect on one another. It is common in cross tabulations of data. Thus, comparing Y and X which are dependent and independent variables respectively. Further, cross tabulation is used to determine the relationship between the two variables. It establishes the interdependent relationship between two variables to show how the variables are interrelated. This helped in showing the effect of independent variables on the dependent variable. In the study it was used to show the effects of independent variables like owners of capital, the state, the non-state actors, the remuneration of workers on workers welfare (dependent variable) with introduction of other factors like the location of the farm (Rural or urban), gender, education, among others.

Finally, multivariate analysis was used to embark on multiple regression and correlation analysis. It was used to measure the individual and component effects of multiple independent variables on a single dependent variable.

Where; $\mathbf{Y} = B_0 + B_1 X_i$ +Error Term

therefore,

Workers welfare=Constant+ B_1 State capabilities, Owners of capital, Remuneration of workers +Error.

Y and X are dependent and independent variables respectively, while B_0 is the intercept of dependent variable at 0 (Y) and B_1 represent the how the independent increases or decreases for a unit change in the independent variable (X). Therefore the workers welfare was affected by the state, or owners of capital or remuneration of workers. This technique is used to establish whether or not a correlation coexists between variables X and Y. Correlation analysis is used to determine the existence of relationship between the variables, its direction and strength (Babbie, 2010). Further, this analysis measured how a combination of the three independent variables jointly through the intervention of non-state actors (an intervening variable) influenced the workers welfare.

More specifically, it was used to examine the effect of independent variables on the dependent variable presented in form of workers welfare in the cut flower industry. Multivariate analysis was used specifically in chapter five to show the both indirect and direct effects of the independent variables on the dependent variable. It helps to measure the influence of the independent variables (owners of capital, the state, the non-state actors, the remuneration of workers) on dependent variable (workers' welfare). Multivariate analysis was used to assess the direction of the influence of all the five independent variables which affected either positively or negatively on workers welfare.

Qualitative data was obtained through from the FGDs and KIIs. The data was analyzed using content and thematic analysis. The data which addressed similar themes were put together. The information obtained was coded, and then categorized according to major themes which emerged in the course of the study. In the course of the analysis, anecdotal references and personal experiences which revealed their perceptions into major questions on workers' welfare were categorized together. Consistencies and discrepancies from FGDs and KIIs were recorded and whenever there was any doubt in the information provided clarification was sought.

3.9 Validation of Data

The researcher carried out several activities to ensure that the data collected was valid. First, in the field, research assistants were trained and later participated in pre-testing the survey. Pre-testing the survey was used to increase the likelihood of face validity. Piloting was in a Thika cut flower farm and two cut flower farms from Naivasha. The purpose of piloting the research instruments was to improve on validity of the instruments. In the field, face to face interviews were carried out where questions were clarified in case a respondent failed to understand the meaning. Further questions were explained in case of lack of clarity or were ambiguous. In some cases, further probing was done. This was aimed at testing both the face validity as well as content validity. The face validity is the likelihood that a question might be misinterpreted while content validity tests whether the instrument provides adequate coverage of the study or unit of

analysis in question (Singleton *et. al*., 1988). After the field, the data was coded, entered and cleaned.

Further, in the field for workers who felt uncomfortable to be interviewed in the farm, the research team would carry out the interview at the place of their convenience. For example, the research team ensured that all the respondents would be asked before the beginning of the interview whether or not they were ready for an interview in a particular venue. In case the response was negative, then they would be asked to choose a venue which was most convenient for them. In addition, each of the sampled respondents would be interviewed while alone, away from the rest of the workers.

3.10 Reliability of Data

The pilot study was done to ensure the clarity of the research tools. To test for reliability of the data, the researcher used the Cronbach's alpha coefficient. Nunnally (1978) suggests that a coefficient of 0.7 is acceptable while Sekaran and Roger (2016) states that a coefficient between 0.5 and 0.8 is adequate. The closer to one the value of this coefficient is, the greater the internal consistency and if the value is closer to zero, then the least the internal consistency. There were a total of 164 variables. The researcher removed nine variables in the data which were qualitative in nature. Then the remaining variables were measured using SPSS software. The standardized Cronbach's alpha is given by

$$\alpha = \frac{N\overline{C}}{\overline{V} + (N-1)\overline{C}}$$

Where N is equal to the number of items, C bar is the average inter-item covariance among the items and V bar equals the average variance. The Alpha was 0.774 (77.4%) while the number of observation was 155 respondents. The Cronbach's alpha coefficient was above 0.7 showing good level of internal consistence of the data. The reliability test was done on both the independent and dependent variables.

3.11 Field Work Experiences

This section presents information on the experiences and challenges encountered by the researcher during the field work. It also indicates the appropriate action the researcher took in order to manage and overcome the challenges. Before going to the field, the researcher obtained a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) (see Appendix 4). In the field, the researcher reported to the County Commissioners from the three regions that is Nakuru, Nanyuki and Thika as one of the requirements of the permit. Second, it ensured that the person in-charge of security in the area was aware of the activities being carried out in the County. The research permit showed that the research being carried out was within the policy of the government and hence ensured its eligibility.

The researcher and research assistants faced seven challenges in the field. The first challenge was inaccessibility of respondents due to heavy rains in the field during the time of data collection. Therefore, mobility of the researcher and the research assistants became difficult. This hampered the data collection process, particularly at NYK1 and NYK2 at Nanyuki area. As a result, this forced us to reschedule the interviews until the weather allowed.

The second challenge was unresponsiveness by the respondents in all flower farms that were sampled. Workers from THK2 and NYK2 Farms cited potentially negative sanctions (dismissal) by employers of anyone who participated or gave out any information about the company to outsiders. They feared losing their jobs if known to have taken part in the interviews by the management. The research team assured each worker of his/her confidentiality of the data and anonymity of the participants.

The third challenge was ignorance of workers on their rights. It is important to note that in the flower farms which were not unionized (not members of a labour union), majority of the workers were not aware of their rights. As a result, they were unwilling to offer any information related to their welfare or working environment. The research team explained to the respondents the purpose of the research and that the information

collected would not be revealed to anybody else. In order also to safeguard the validity of the data collected, the workers were interviewed outside the surroundings of the farm, in a private place or at their places of residence.

Fourth challenge was reluctance of the management in allowing the research team to access the cut flower farm. It was a great challenge to be granted permission by the management of all other farms except from one farm at Naivasha (NVA1). The management complained of bad image which had been created in cut flower industry on working conditions and working environment of workers by media and CSOs. However, the research team introduced themselves and showed them the letter of the authorization from NACOSTI (see Appendix 5). Further, the researcher produced the original Student Identification card from the University of Nairobi to show his status of being a PhD candidate and thus, the study was being carried out for academic purposes. Nevertheless, some became adamant and never granted the permission. At one place, the farm security officers were asked to escort the researcher out of the premises and cautioned not to allow him back into the farm. Therefore, the team conducted the interviews with workers at their places of residence away from the vicinity of the management. This enabled the workers to give information without fear of the management and ensured validity of the data.

The fifth challenge was language barrier. The research team used Kiswahili which was the main language understood by most of workers although some workers would request us to use English. The research team was conversant with translation of the questions from the English to Kiswahili which they practiced before the commencement of the study. Some workers in NYK2 (Nanyuki area) found it difficult to express themselves even in Kiswahili. Although they understood the questions, answering the same in Kiswahili was a challenge. Some even asked why we could not speak in the local language (Meru). To overcome this limitation, the research team translated the questions in the questionnaire to a language that was easily understood by the workers during interview.

The sixth challenge was poor timing of the interview for key informants. Procuring and timing of the interview with human resource managers was a problem in almost all farms in Nanyuki area, Naivasha and Thika. It was a challenge to access human resource managers of different farms to carry out interviews except Nini flower farm at Naivasha. The research team could negotiate and reschedule interviews with the managers at their most appropriate time and place. The research team could avail themselves anytime when a manager was available at their convenient places. This ensured that they were able to freely offer information relating workers welfare in their farms, to ensure maximization and validity of the data. Sometimes, we were forced to see the Human Resource Managers on Sundays or even in the evenings at places of their convenience. Finally, the field work was successful. The research team was able to carry out interviews among 358 workers from the three selected regions.

3.12 Ethical Considerations

According to Nachmias and Nachmias (1996) ethical issues in social sciences include voluntary participation; informed consent; protecting the participants from harm; privacy of the respondents; anonymity and confidentiality. Prior to the field the researcher sought permission from the National Commission for Science, Technology and Innovation (NACOSTI) in charge of research studies in the country. The permit given by NACOSTI was carried during interview and produced any time it was demanded. Further in the field, the research team gave a courtesy call to the County Commissioners from the three regions that is Nakuru, Nanyuki, and Thika and the Ministry of Labour Offices.

During the start of the interview, the consent of an individual worker to participate in the study was sought. Further, workers were requested to offer the information voluntarily. This was carried out by asking them not to participate in the study if they were not comfortable. In addition, the research team ensured privacy of the information and the interviewee by carrying out the interviews away from the management and other workers. The research team ensured that the interviews were carried out of the vicinity of the management and other workers who were not sampled for the study.

Further, the interview could be conducted away from other worker to avoid their colleagues from listening to the interview. Finally, the names of the respondents were not written on the questionnaire to ensure anonymity of the workers. In addition, the researcher assured the respondents that all the information would be handled with utmost confidentiality. For this reason the respondents felt comfortable and were able to offer the required information on workers welfare without fear of any negative consequence.

CHAPTER FOUR: DATA PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter presents the data on workers' welfare in the cut flower industry in Kenya. The data collected and analyzed responded to six thematic areas: a) the social demographic characteristics of workers; b) workers' remuneration; c) extent to which workers' welfare is protected by the state; d) the contribution of non-state actors to the welfare of workers; e) role of MNCs/local entrepreneurs in workers welfare, and f), the impact of market oriented professional accreditation agencies on workers' welfare.

In this study, three levels of analysis are used to analyze data. These are the univariate, bivariate, and multivariate. However, in this chapter only univariate and bivariate analyses are used. Multivariate analysis will be used in Chapter Five. In univariate analysis, each variable is discussed at a time, hence giving an overview of the distribution of selected variables of the study. Bivariate analysis involves discussion of two variables to measure covariance, correlation, or the influence of one variable over the other.

This chapter is divided into the following seven sub-sections which are: a) the social and demographic characteristics of workers; b) workers working conditions in cut flower farms; c) workers' remuneration in the cut flower industry; d) the contribution of the state in protection of workers' welfare; e) the contribution of non-state actors in protection of workers' welfare; f) the influence of the owners of capital on workers' welfare; and g) the impact of market accreditation agencies on workers' welfare and finally, the summary of the chapter. The next sub-section addresses the basic profile of the workers in the cut flower farms.

4.1 Social and demographic characteristics of workers

This section presents a basic profile of the workers at the cut flower farms during the time of field work. The information is based on face to face interviews that were conducted using standardized questionnaires. This section, thus presents basic socio-demographic

variables on sex, age, level of education, marital status, family size, housing of workers, type of residence of workers, and duration worked in the farm.

Quantitative data was collected using a standardized questionnaire from 358 workers of the lower cadre distributed in the three regions sampled. The sample was distributed in the three regions as follows; in Naivasha they were (196) 54.75%, Thika (108) 30.17% and Nanyuki (54) 15.08%. In the three regions, a total of thirteen cut flower farms were covered where seven farms were covered in Naivasha, four farms in Thika and two farms in Nanyuki. The justification of selecting majority of workers from Naivasha region was informed by two reasons: first, it is the hub of cut flower farming in Kenya and occupies 44% of total area in the country under cut flower farming (Bolo, 2006). Secondly, it had a combination of rural and urban characteristics which was of the interest in this study.

The study sought to establish the distribution of respondents by **sex.** Recent studies in the cut flower industry have reported that the main sources of labour are women (Dolan *et. al.*, 2003; Dolan, 2005; Risgaard, 2014). Yet, in the current study, of the 358 workers covered, 212 (59%) were male 146 (41%) were female. This variation was attributed to the sensitivity of the study. Most of the females were not willing to participate fearing victimization by the management in case they are later known to have participated in this study. It is likely that the workforce in the cut flower industry in Kenya is still predominantly female.

The study measured the variable **age** of the workers. There are two reasons why age is an important variable in profiling the workers in an industry. First, age can be viewed as a proxy variable that indicates the quality of labour force in a particular industry. Secondly, age variable is used in establishing whether or not the industry has high labour turn over or not. The concentration of high number of younger workers in an industry and low number of older workers shows a sign of mobility of workers from one industry to another or from one farm to another. Previous studies (KHRC, 2012; Staelens *et. al.*, 2014; Odhong' and Omollo, 2014) have reported that the workers in cut flower industry are predominantly within age 20-25 years old, with the mean age around 24.1 years attributed to mobility of

workers. In this study, the modal age was 25 years; the mean age was a bit higher at 32.47 years while the median was 32 years. Table 4.1 illustrates the distribution of workers by age and gender.

Table 4.1: Distribution of Workers as per Age and Gender

Age	**Male**	**Female**	**Total**
Below 18years	0 (0.0%)	1 (0.7%)	1 (0.3%)
18yrs-27yrs	74 (34.9%)	48 (39.3%)	122 (34.1%)
28yrs-37yrs	80 (37.7%)	59 (40.2%)	139 (38.8%)
38yrs-47yrs	46 (21.7%)	33 (22.6%)	79 (22.1%)
48yrs-57yrs	11 (5.2%)	5 (3.4%)	16 (4.5%)
Above 58years	1 (0.6%)	0 (0.0%)	1 (0.3%)
Total	**212 (59.2%)**	**146 (40.8%)**	**358 (100.0%)**

Table 4.1 depicts that majority of workers (73%) both male and female are within the age limits of 18-37 years. Further, among the female workers 40.4% were within the age limits of 28-37 years whereas the male were 37.7%. The study reveals that the industry is comprised of young people irrespective of the gender. The age of workers is higher from the previous study as in the previous study the mean age was 24.1 years in comparison with 32.47 years in this study. Thus, in the current study workers are older than in the previous studies which depicts that the industry is currently attracting both young and old workers irrespective of the gender.

Blau (1985:279) argued that "one way of viewing the primacy of work in one's life is by looking at the marital status of an individual." This study further, attempted to measure the **marital status** of the respondents in the cut flower industry so as to determine whether or not the variable had an impact on the job market. The industry is a common entry point to the job market for most of the young people. Thus, the expectation of this study is that majority of workers are single (Beyene, 2014). This variable was measured by asking the workers to state their marital status. This survey revealed that a majority of the workers interviewed in the farms (71.8%) were single followed by those who were

married (25.98%) and there was a mixed category of other (divorced, separated and widowed) that constituted 2.2%. Past studies; like Odhong' and Omolo (2014), focusing on cut flower industry in Kenya had reported that majority of workers (74.5%) are married. Contrary to the latter study, this study found that majority of workers in the cut flower industry were single. The high percentage of workers who are single could be attributed to the fact that, the industry mainly attracts young people in their early adulthood after attaining basic education.

Previous studies, for example Bolo (2006) and Kirigia *et. al* (2016) show low levels of education among cut flower workers. Workers in the cut flower industry are profiled by scholars for example, Beyene (2014), as having low level of education associated to the demands of unskilled labour in the industry. Thus, this study sought to measure **the level of education** of the workers. For our study, the variable was operationalized by asking the workers to state the highest level of education that they had attained. Data in this study shows that 48.9% and 36% had attained secondary and primary education, respectively. Only 10.1% of the workers did not have formal education. Therefore, a majority of the workers had primary and secondary education, which could be attributed to the support by the government on universal primary and subsidized secondary education. One of the key informants in Thika reported that:

> in cut flower industry, majority of workers are mostly primary and secondary education holders who join the industry immediately after finishing school. This is explained by failure of acquiring good grades which could help them to join institutions for higher education and poverty denies them financial capacity to further their education.

Hence, the current trend in the industry is of the educated labour force. This study found that over time, Kenyan workers in the cut flower farms are increasingly joining the industry with higher level of education.

Past studies by Beyene (2014) and Perry (2012) show that the industry highly attracts unskilled labour that rarely possesses special skills. The study sought to establish whether or not the workers had **acquired specific skills** before joining the industry. The study found that about 155 workers covered (43.3%) had acquired technical skills although these skills did not necessarily relate to the work they were doing. However, majority of workers (56.7%) did not have specific skills, implying that in the cut flower industry, acquisition of skills was not a prerequisite in joining the industry. Accordingly, the sector was open to both unskilled and skilled labour. Some of the skills that workers had acquired included auto vehicle driving and mechanics, electrical engineering, front office management, computer and ICT, food and nutrition, tailoring, teaching (education), plaiting hair, plumbing, masonry, welding, and mechanical engineering. This shows that the industry was attracting people with technical skills. This could be attributed to high unemployment rate in the country which stands at 39.1% (UNDP: 2017). Due to high rate of youth unemployment, skilled youth who cannot get appropriate jobs are forced into the cut flower industry, which has made even people with skills opting to join the industry.

This study also examined the **ethnic composition** among the workers in cut flower industry. Distribution of workers in an industry is most likely informed by either the dominance of the community surrounding a farm or kinship ties. Tierney (2008) in a study done in Taiwan, posits that the ethnically dominant group in the job market in an industry is informed by the ethnic composition and kinship ties in a region. Thus, majority of employees in a cut flower farm would report from the surrounding area or are sourced by their kinsmen already working in the cut flower farm. The variable on ethnic composition was used to establish whether or not workers in Kenya migrate across the country from different ethnic groups seeking jobs in the cut flower industry. This variable on ethnic composition was measured by asking the workers to state their tribe. Table 4.2 illustrates the ethnic composition of the workers in the three sampled regions.

Table 4.2: Distribution of workers by ethnicity and region

Ethnic group	Region			Total
	Nanyuki area	**Naivasha**	**Thika**	
Luhya	4 (4.2%)	63 (66.3%)	28 (29.5%)	95 (26.5%)
Kikuyu	14 (17.5%)	32 (40%)	34 (42.5%)	80 (22.3%)
Kisii	3 (6%)	30 (60%)	17 (34%)	50 (14%)
Luo	1 (1.9%)	27 (69.2%)	11 (28.2%)	39 (10.9%)
Meru	27 (81.8%)	2 (6.1%)	4 (12.1%)	33 (9.2%)
Others	5(8.2%)	42 (68.8%)	14 (23%)	61(17.1%)
Total	**54 (15.1%)**	**196 (54.7%)**	**108 (30.2%)**	**358 (100%)**

The data in Table 4.2 reveals that majority of workers interviewed were Luhya (26.5%) followed by Kikuyu at 22.3%. Thus, nearly half of workers covered (49%) were drawn from two tribes namely, Luhya and Kikuyu. In addition, the ethnic composition of workers in the industry was cross tabulated with the location of the farm to establish whether the variable on the region affected the distribution of the ethnic composition. Therefore, except for Naivasha, the largest percentage of the workers came from the surrounding community. This indicated that the composition of the workers in the farm was informed by the ethnic composition of the surrounding areas. Mano *et. al.* (2010) found that workers' employment in a cut flower farm was influenced by employees already working in the farms, who could inform their relatives and friends of opportunities for employment. Naivasha region is the oldest in terms of cut flower production. The workers in the farm call their kinsmen in case of an employment opportunity in the farm. Thus, the ethnic composition in the farm may have been influenced by kinship ties of the workers working in the farm.

In **summary,** there were more males (59.22%) than females participated in this study. This was attributed to sensitivity of the study. Conventionally, the industry is known to attract more women than males. The mean age for workers was 24.1 years. Further, almost 75% of workers employed in cut flower farms were 18-37 years old, thus the industry attracts young people. Almost a half of workers (48.9%) had attained secondary

education which is attributed to government initiative of subsidizing secondary and making primary education universal for all children. Although majority of workers (56.7%) entered the job in the cut flower industry without specialized skills, almost half of the respondents had technical skills, though the industry does not require these technical skills. After school, some had acquired vocational training unrelated to the work they were doing. However, due to high unemployment rate which currently stands at 39.1% (UNDP, 2017), they may have decided to take manual jobs in the farms. Further, the study confirmed that marital status of majority of workers were singles as the industry attracts young people after attaining the basic education. Thus, the industry is the acts like the entry points of young people especially after completing the basic education. Except Naivasha, the ethnic composition of other two regions was informed by the community surrounding the farms. However, for Naivasha the ethnic composition was influenced by workers' individual networks such as kinship ties or other related relations.

4.2 Working Conditions in Cut Flower Farms

One of the critical variables in determining workers' welfare in the cut flower industry relates to working conditions. Such conditions influence the outcomes of the workers' welfare directly such that if conditions are favourable, they impact positively on employee welfare. The relevant variables measured included: type of residence, provision of housing, transport facilities, terms of employment, workers' physical protective equipment, number of working hours, compensation of overtime work, and period worked in the farm.

On **residence**, Beyene (2014) in his study in Sebeta Ethiopia reported that the type of residence of a worker has a great socio-economic significance especially when majority of workers are renters than home-owners. Thus, workers welfare is affected by the residence status which can lower the living wages or increase it. For our study, this variable was measured by asking the workers to state their place of residence; whether they were living in their own houses, company houses, or in rented ones. Out of 358 workers, 72.4% lived in rented houses, 10.3% in their own houses, while 17.3% were living in houses provided by the employer. Gardman (2009) writes that it is the right of a

worker to be provided with housing by the employer either in form of physical house or the house allowance.

This study attempted to establish the mean house allowance given to workers in cut flower industry. According to a report by Opondo (2006) and Caestecker (2012), house allowances paid by the employer are insufficient to acquire decent housing. The mean house allowance paid to workers in cut flower farms in Nanyuki was Kshs 1,122, Thika, KShs 1500 and Naivasha, KShs 1726. The total mean for all regions was Kshs 1,567.46. This showed that workers in Nanyuki were paid the least house allowance followed by Thika while Naivasha had the highest house allowance over the three regions. However, according to FGD carrried in the three regions, in average the house rent ranged from KShs 1,200- KShs 1,800. Thus the workers opted to take the house allowance to safe the difference of KShs 300-KShs 600. Despite these poor housing conditions, housing is expensive for workers relative to their current package on house allowance. In our study, a majority of workers were provided with house allowances to enable them to look for their preferred residence. The decision for preferred houses was informed by the size of a family and the cost of the rentals. The workers living in the houses provided by the employer complained of small and poorly maintained rooms.

The study also sought to establish **the terms of employment** of workers in cut flower industry to understand how it affected their welfare. The industry is known for its seasonality, and thus the assumption is that the permanent workers are few. Previous studies by Riddselius (2011) and Opondo (2002) indicate that the cut flower industry in Kenya is characterized by workers on contract or seasonal/casual labour. The variable was measured by asking the respondents to state their current terms of employment where three options were given, namely, either permanent, on contract or seasonal (casual). Surprisingly, responses to this question revealed that a majority of workers (70%) were permanently employed, while 25% were on contract. Only 5% of workers were casuals. Our finding was almost similar with the reports by Odhong' and Omolo (2014) and Riisgaard and Gibbon (2014) who observed that majority of workers were permanent at 78% and 85%, respectively. As a result, the emerging pattern in the

Kenya's cut flower industry is that there is an improvement in working conditions where more workers are being recruited on permanent basis and thus being entitled to more work benefits like pension, medical arrangement among others unlike seasonal and workers on contract.

The study further measured the workers **duration of the engagement in the farm,** which was operationalized to mean the time the respondent had been engaged to work in the cut flower farm. This variable was measured to establish the rate of job turnover. Past studies show that workers are engaged for lesser years in the cut flower industry (Bolo, 2006; Beyene, 2014) suggesting high turnover in the industry. This study found that on average, a worker had been with the current employer in the cut flower industry for a period of three years, with a mode of two years. In addition, this study shows that a majority of workers (42.5%) had worked for a period of less than two years. The workers who had worked for 3-4 years were 17.3%. Thus, the findings show that almost 60% of workers were engaged in the farm for less than four years. This is an indication of high job turnover which could be explained by many factors. First, the seasonality of the industry such that the workers seek employment in the cut flower industry as the entry point to the job market, while still looking for other jobs. Second, the perceived poor reputation of the industry, associated with poor working conditions. A report by Staelens *et. al.* (2014) observes that the rate of job turnover in the cut flower industry has been high. High job turnover shows that the industry is not able to retain its workforce which it trains in the job.

The variable on the duration a worker had been engaged by the current employer was cross tabulated with the region (Naivasha, Thika or Nanyuki). Workers from different regions react to their current place of work differently either by exit, voice, or stay-on in hope of improved welfare. According to a report by Bhatta (2010), there is a likelihood of workers exiting from rural to the urban areas in search of alternative job opportunities and better livelihood. The variable on the duration a worker had been engaged in the current farm was cross tabulated with the variable on the region. The aim of cross tabulation of the two variables was to find out whether or not there was variation across

region. Table 4.3 illustrates the duration (years) which the workers were engaged by the current employer in Nanyuki, Naivasha and Thika.

Table 4.3: Comparison between farm location and workers' duration of engagement (yrs)

Workers' Length of engagement	**Location of the farm**			**Total**	**Cumulative frequency (%)**
	Nanyuki	Naivasha	Thika		
Below one year	18 (33.3%)	30 (15.3%)	12 (11.1%)	60 (16.8%)	16.8%
1-2 years	24 (44.4%)	52 (26.5%)	16 (14.8%)	92 (25.7%)	42.5%
3-4 years	7 (13.0%)	20 (10.2%)	35 (32.4%)	62 (17.3%)	59.8%
5-6 years	4 (7.4%)	34 (17.3%)	23 (21.3%)	61 (17.0%)	76.8
Above 6 years	1 (1.9%)	60 (30.6%)	22 (20.4%)	83 (23.2%)	100.0%
Total	**54 (15.1%)**	**192(54.7%)**	**108 (30.2%)**	**358 (100%)**	

The data in Table 4.3 shows that Nanyuki had the highest turnover (77.7%) of its workers reported having worked with the current employer for up to 2 years. The corresponding figures for Naivasha and Thika were 42% and 26% respectively. The mean years worked by employees in the farms in the three regions was two years. Nanyuki, was a typical rural setting. According to Mano *et. al.* (2010) the turnover in firms located in urban areas tend to be low than in rural areas. This is because of better workers' welfare in urban areas in comparison with the rural areas. Thus, one of the reasons which could be contributing to high job turnover in Nanyuki in comparison with other regions is therefore high rate of migration of workers to urban areas in search of better opportunities.

In **summary**, the findings in this section on working conditions of the workers in the cut flower farms revealed that majority of workers (72.4%) were living in rented houses against 17.8% living in company houses. The poor standard of the houses rented by workers can be attributed to low house allowance whose mean is KShs 1,567. Further,

the house allowance given to workers is too low for a decent house. 70% of the workers who participated in this study were employed on permanent basis; against the assumption of the previous knowledge that majority would be seasonal workers. The variation can be attributed to the timings of the study (done during low season). This study found that on average, a worker had been engaged with the current employer in the cut flower farm for a period of three years, although majority (42.5%) were engaged for a period of less than two years. Thus, the rate of job turnover in the industry is relatively high. Almost 60% of workers were engaged in the farm for less than four years. In Naivasha, had the lowest job turnover with Nanyuki having the highest rate of job turnover. High rate of job turnover in Nanyuki could be attributed to migration of workers to the urban areas in search of better opportunities of well-paying jobs.

4.3 Workers Remuneration in Cut Flower Industry

The study also sought to establish the extent to which the workers' wages were commensurate with their welfare expectations. According to Chapter Four on the Bill of Rights, Article 41 (2a), in the Constitution of Kenya (2010), a worker is entitled to a fair remuneration (RoK, 2013). The variables measured to address this objective are: a) duration worked; b) the gender differentials in the hours worked; c) compensation for extra hours; c) workers' monthly remuneration; d) rating of workers' current wages; e) the perceptions of workers' wages, and f) whether or not the workers were engaged in other gainful employment elsewhere.

Specifically, we measured the **duration worked** by employees per day. Our aim was to establish whether or not the workers were engaged in the farm for the eight hours specified by Kenya's labour laws (RoK, 2012b). The industry has been accused of exposing workers to working for more than eight hours as previously reported by Ethical Trading Initiative (ETI) (2005). Employees are required to work for 45 hours per five-day week, which is eight hours from Monday to Friday and five hours on Saturday (RoK, 2012b). Yet, Riddselius (2011) observes that workers in the cut flower industry in Kenya were engaged even for more than ten hours per day. For our study, the variable was

measured by asking the workers to state the number of hours they were engaged in the farm per day.

Our study found that majority of workers (82.4%) was engaged in the farms for eight hours, while a few 12% worked for less than eight hours. The rest of workers, (5.6%), were engaged in the cut flower farms for more than eight hours a day. Accordingly, we found that majority of workers were engaged for eight hours as stipulated in CAP 229 of the Constitution of Kenya (2010). Conversely, Dolan *et. al.* (2003), in their study carried out in cut flower farms in Kenya reported that workers were engaged for more than the legislated eight hours. This report was written before the establishment of the labour laws in 2007. Thus, there is a sign of the improvement in the industry on working conditions of workers and thus currently they are not subjected to long working hours as previously reported.

This study further sought to establish the **workers' monthly remuneration** in the cut flower industry in the three regions. The industry has been demonized for paying its employees poorly, sometimes lower than the government stipulated minimum monthly wage of KShs.5,436.90[7] for the unskilled workers (RoK, 2015). The variable was measured by asking the workers to state the amount of wages paid per month in Kenya shillings to the respondents. Table 4.4 captures the data on monthly wages for the respondents per region.

[7] This study was carried out in 2015.

Table 4.4: Workers' wages and farm location

Workers' wages	Location of the farm			Total
	Nanyuki	Naivasha	Thika	
Less than KShs. 5,001	0 (0.0%)	29 (14.8%)	3 (2.8%)	32 (8.9 %)
KShs. 5,001-KShs. 7,000	11 (20.4%)	41 (20.9%)	42 (38.9%)	94 (26.3%)
KShs. 7,001-9,000	32 (59.3%)	28 (14.3%)	44 (40.7%)	104 (29.1%)
KShs. 9,001-11,000	9 (16.7%)	62 (31.6%)	10 (9.3%)	81 (22.6%)
KShs. 11,001-13,000	1 (1.9%)	16 (8.2%)	4 (3.7%)	21 (5.9%)
KShs. 13,001-15,000	1 (1.9%)	16 (8.2%)	4 (3.7%)	13 (3.6%)
More than KShs. 15,000	0 (0.0%)	10 (5.1%)	3 (2.8%)	13 (3.6%)
Total	54 (15.1%)	196 (54.7%)	108 (30.2%)	358 (100.0%)
Mean minimum wage	KShs.8,360	KShs.9,049	KShs.7,904	KShs.8,600
Pearson Chi-Square=49.225	df=6		Asymp. Sig. (2-sided)=0.0001	
Likelihood Ratio=56.729	df=6		Asymp. Sig. (2-sided)=0.0001	

The study found that the mean monthly wages for the 358 workers covered in the three regions was KShs.8,600 with a mode was KShs.5,000. Certainly, the mean monthly wage exceeded the minimum monthly wage of Kshs.5,436 stipulated by the government for the sector in 2015 (RoK, 2015). However, workers in Thika, despite being in the urban area had the lowest mean monthly wage of Kshs7,904 in contrast with workers in Nanyuki whose mean monthly wage of Kshs8,360. Naivasha had the highest average minimum wages of Kshs9, 049. Our findings seemingly, contrasts with many others that demonize the industry for poor remuneration of workers. However, further analysis cast doubts on the actual adequacy of the monthly wage of the cut flower workers. Study's data shows that 52% of the workers covered earned a monthly wage ranging between KShs 7,001-KShs 9,000 which is far beyond the government minimum stipulated monthly wage of KShs.5, 436. Nevertheless, 18% of the sample earned a monthly wage of less than the government minimum stipulated monthly wage of KShs.5, 436. A report by Women Working Worldwide (2013), found that the living monthly wage for a family of two children was KShs. 21,545. Accordingly, data in Table 5 shows that the overwhelming majority of workers covered qualified to be considered as working poor. Most likely,

workers covered by this study lived in absolute poverty given that their mean family size was 3.57 members who lived on an average monthly wage of Kshs 8,600.

The study further endeavoured to establish **whether or not the respondents were engaged in other gainful work elsewhere** to supplement their income from cut flower farms. The variable was operationalized by asking the workers whether or not they were engaged in another job. Both reports by Plucking *et. al.* (2015) and WWW (2013) had established that workers in cut flower industry in Kenya supplemented their wages through small subsistence agriculture and income generating activities like selling food and embroidery, small shops, bicycle taxis or informal money lending. Table 4.5 illustrates whether or not the workers were engaged in other gainful work elsewhere.

Table 4.5: Workers' engagement in other gainful work elsewhere per region

Engage in gainful work	**Location of the farm**			**Total**
	Nanyuki	**Naivasha**	**Thika**	
Yes	14 (26%)	28 (14%)	26 (24%)	68 (19.0 %)
No	40 (74%)	168 (86%)	82 (66%)	290 (81.0%)
Total	54 (15%)	196 (55%)	108 (30%)	358 (100.0%)
Pearson Chi-Square=6.322	df=2	Asymp. Sig. (2-sided)=0.042		
Likelihood Ratio=6.288	df=2	Asymp. Sig. (2-sided)=0.043		

Overall, data from our study shows that 81% of workers in the three regions reported that they did not engage in gainful work elsewhere. Indeed, only 68 workers affirmed engagement with other work elsewhere. Majority of the workers in cut flower industry are young people and thus there is a possibility that their parents still supplement their budgets by giving them hand-outs. During FGD in Naivasha, one of the participants said:

> Majority of workers in this industry get money and food (in form of cereals) from home where their parents send the package either monthly or weekly. Some of us visit our rural areas when we are off duty especially for people who come from the surrounding areas.

Another FGD Participant from Thika said:

> In cut flower farm a lot of commercial sex work takes place especially at the end month. Thus, some women supplement their budgets through commercial sex business.

Thus in the cut flower industry there are different way of supplementing the budget. Workers survive even without engaging themselves in other economic gainful activities.

When the variable was cross tabulated by region, among the workers who had other gainful work elsewhere (68), Nanyuki and Thika had the highest percentage per region who engaged on gainful work elsewhere at 26% and 24% respectively. Nanyuki region was selected due to its rural socio-economic characteristics. According to a study by WWW (2013) on living wage majority of employees in flower farms located in the rural areas engage in subsistence farming while workers engaged in farms near urban areas they engage in business to supplement their budgets. From a FGD at Thika, some of the activities that the employees were involved in includes:

> selling sukuma wiki, retail shops, embroidery and food selling especially tea and coffee, plaiting and braiding hairstyles on other women, Boda boda riding either using motor cycle or bicycles, being employed as watchmen, being touts in land transport lorries, loading and unloading building materials like stone, sand etc. Women could involve themselves with washing clothes in different houses, tailoring, and commercial sex work. Specifically, there was allegation that commercial sex is rampant in the cut flower farms.

Therefore, we can deduce that the likelihood of workers in cut flower farms with rural socio-economic characteristics to be engaged in other gainful activities is higher than workers in the farms with urban socio-economic characteristics. This can be attributed to the starting capital and opportunity available for other gainful activities which is higher in urban than in rural areas.

In **summary**, majority of workers (82.4%) were engaged in the farms for eight hours a day, thus there was a substantial improvement in adhering with labour law on legislated working hour per day. The workers' average monthly wages was Kshs. 8,600 which was far beyond the stipulated minimum monthly wage by the government while the mode was Kshs. 5,436 per month. On average workers in Thika were paid the lowest average wage of KShs.7,904 in comparison with Naivasha who were paid the highest average minimum wages of KShs. 9,049 in spite of both regions having the same urban socio-economic characteristics. Overall, the industry should not be demonized as paying low wages to workers. However, workers in cut flower industry qualified to be working poor majority of workers earned wages below KShs. 21, 545 which was the real wages according to WWW(2013). Surprisingly, 81% of the workers were not engaged in other gainful activities to supplement their monthly wages.

4.4 The contribution of the State in Protection of Workers' Welfare

This section focuses on the role of the state in protection of workers' welfare in Kenya. The state is mandated in protecting the workers welfare by ensuring legislation and enforcement of the labour policies (Mlynska, *et al*., 2015). In the cut flower farms, there are policies laid down by the state to prevent workers from being negatively affected due to failure of implementation of labour laws and policies, thus risking their welfare (KHRC, 2012). The labour policies laid by the Kenyan state to protect the workers from exploitation address the working conditions, remuneration, as well as health and safety issues.

One of the ways of ensuring that there is cordial relationship between the workers and the owners of the capital is by legislating the labour policies to protect the interests of both stakeholders in the cut flower industry. The study attempted to establish whether **the workers were aware of the labour policies** guiding the cut flower industry. Rikken (2011) argues that policies are important in cut flower sector as they provide an enabling environment for it to thrive. Therefore, lack of awareness of labour policies by workers in a particular sector makes them vulnerable to exploitation by the owners of the capital (ILO, 2012). Awareness of the labour policies empowers the workers by understanding

their rights and knowing when the same are being infringed upon. This variable was measured by asking workers whether they were aware of labour policies in the industry.

In this study, 77.4% of workers were aware of labour policies in the sector, while 22.6% were not. During one of the FGDs, it emerged that some of the policies which the workers were aware of included:

> right to minimum basic wage, right to health and safety, right to leave days, right to good working conditions, right to protective working equipment (PPE), right to transport, right to association, and right to maximum working hours.

Yet, awareness of the labour policies alone is not important without their implementation. According to Rueschemeyer *et. al.* (1992:65), the state depends on the interests of capital owners and managers for the success of its policies which expose workers to exploitation tendencies by the owners of capital. Therefore, the study attempted to establish whether **the labour policies were implemented in the cut flower industry in Kenya** by the state to protect workers from exploitation. Previous studies by Chalwal *et. al.* (2016) and Hughes (2001) had established that the state is both the legislator and implementer of the labour policies in the cut flower industry. The variable was operationalized by asking the workers whether the state was implementing the labour policies like on minimum wages, working condition, health and safety of workers in the cut flower industry. Majority of the workers (70.7%) agreed that policies in the industry were implemented, while 29.3% disagreed. The findings are in support of Rikken's (2012) viewpoint that the state implements the labour policies related to workers' welfare in the cut flower industry. Thus,, there is a significant improvement in the implementation of the labour policies in the industry.

We sought to establish whether or not the labour policies which are legislated to protect employees in the cut flower industry are implemented by the Kenyan state through its officers, specifically labour officers and labour inspectors. Articles 32-42 of the Occupational Safety and Health Act 2007, give power to the labour officers to enforce

implementation of occupational health and safety, improving and ensuring health, safety, security and good working conditions in a farm through inspecting the enterprises to ensure that the law is enforced (RoK, 2007). Previous findings by Inter Press Service (IPS) indicated that the labour inspections normally conducted by government officials through visits were not carried out in the cut flower farms in Kenya (Njagi, 2013). Further, report KHRC (2012:10) noted that there was challenge of enforcing labour laws and labour inspections in the cut flower industry, due to lack of proper facilitation of labour officers and inspectors. The variable was operationalized by asking the workers whether or not they had ever seen the government officials (labour officers and inspector) visiting the cut flower farms to check on their working conditions.

The study also sought to establish whether or not there has been **laxity among government officers** in dealing with workers grievances. The government officers in the cut flower industry include the labour officers, labour inspectors, and officers from the Directorate of Occupational Safety and Health Services. Recent literature in cut flower industry indicates improvements in the industry which is attributed to the initiative by the government officers dealing with the industry from what it used to be in 1990s (Riddselius, 2011; Chalwal *et. al.*,2016). There have been claims that the government officers have not been carrying out inspections in cut flower farms which expose workers to exploitation by the owners of the capital (Njagi, 2013). The variable was measured by asking whether or not there was a labour-related problems experienced in the farm that needed government intervention. A majority of workers (72.9%) indicated that they had faced such a situation, while 27.1% had not. This shows that that there were problems that needed government intervention in the farms.

Our study went further to establish whether or not the stated problems were addressed by the state through the government officials. To measure whether or not laxity of government officers was evident in the farm, the study relied on the variable of whether the problems raised by the employees had been addressed by the government officials. Out of 261 workers who had reported that they had experienced a problem which needed government intervention, 90.4% said that those issues have yet to be addressed. This

shows that a majority of the workers perceived laxity by government officials in addressing the workers issues in the cut flower industry. Some of the reasons given by the labour officers in Nanyuki during the key informant interviews were:

> Currently, we are not able to visit farms which are in the rural areas due to lack of facilitation. Earlier, we used to have vehicles for field inspections which are currently stalled either after breakdown or due to lack of fuel. Hence, our work has been hampered by challenges which are financial, human, and infrastructural.

Thus, lack of the government officials in addressing labour related matters may not necessarily be attributed to their laxity. There could be underlying challenges which indicate lack of commitment by the state in enforcing the labour policies, thus exposing the welfare of the workers.

The study also sought to establish **the perception of workers on the role of the state in safeguarding their welfare** in the cut flower industry. To measure the statement, a likert scale comprising of five values of "Strongly Agree", "Agree", "Indifferent", "Disagree", and "Strongly Disagree", were used. The study measured this perception by asking the respondents to rate whether the government was safeguarding their interests. Ghani and Lockhart (2008) argued that the state should protect its citizens by safeguarding their rights. However, there have been reports of abuse and exploitation of workers in cut flower industry (Gibbon & Riisgard, 2014; Dolan, 2005; WWW, 2013). The variable was operationalized by measuring a perception that the government safeguards the interests of the workers in the industry. In response, majority of workers (65.1%) agreed, while 24.3% disagreed. Thus, a majority of workers perceived that the government was safeguarding their welfare. This perception of workers is in contrast with the view given in the by KHRC (2012) that the government of Kenya had failed in protecting workers' welfare thus exposing them to abuse by the owners of the cut flower farms. Drawing from data, this study provides some evidence suggesting that the government was protecting workers' welfare.

In **summary**, this section establishes, majority of workers (77.4%) were aware of labour policies and these policies are implemented by the state (70.7%) through government labour officials. 80% of the workers reported to have met the government official in the field, probably enforcing these labour policies. At Thika, the presence of government officers in the field was high at 100% in comparison with 63% in Nanyuki. In this study, visitations by labour officers in the cut flower farms is perceived as readiness by government to enforce labour related policies. However, there are factors which have been attributed to failure in enforcing government labour policies in the cut flower farms which include inadequate facilitation on human and financial resources by the government. In addition, 75% of workers had experienced a labour related issue which needed government intervention. Surprisingly, almost 100% of workers reported that these issues were yet to be addressed. This is a serious gap on the part of the government of Kenya in addressing labour related issues which could be attributed to laxity among government officers visa viz the government which they serve. Nonetheless, 65% of workers perceived that the state was safeguarding their welfare in the in the cut flower farms.

4.5 The contribution of non-state actors in protection of workers welfare

The study also endeavoured to establish the contribution of non-state actors like trade unions and civil right groups to the protection of workers welfare in cut flower industry in Kenya. The Kenya Plantation and Agricultural Workers Union (KPAWU) cover the workers in the cut flower industry in Kenya. Riisgaard and Gibbon (2014) demonstrate that Trade unionism secures the welfare of its members. This is evident where workers through enhancement of workers' remuneration and their working conditions. This study endeavoured to establish whether or not the trade union protected workers' welfare. It is through the trade union that workers are supposed to lodge complaints on issues related to labour (Mlynska *et. al*., 2015). Trade unionism plays a vital role in establishing a conducive working environment for workers. It helps in safeguarding the interests of workers and voicing out the agenda of workers in their interaction with their employers (Edward and Saviour, 2002). Further, trade unionism effectively engages employers at the convenience of the workers to improve their welfare at workplace (Hyman, 2001). In

our study, comparative analysis of the three regions was carried out to measure the following variables: 1) membership to a trade union; 2) whether or not the activities carried out by the trade union directly responded to workers' needs; 3) whether or not workers were visited by trade union officials in the farm; 4) in case of grievances by workers, whether the union acted on their behalf; and 5) the general perception of workers on the contribution of non-state actors in safeguarding their welfare in the industry.

The study measured whether or not workers were unionized. Previous scholars (Gårdman, 2009; Morgante and Leipold, 2013; Odhong and Omolo, 2014) had observed low membership to the trade union (KPAWU). Further, according to a report by Dolan *et. al.* (2003), the trade unionism provides some protections to workers in the farms. Thus, this study attempted to establish whether or not workers were **members of a trade union**. This study reports that majority of the workers (53.4%) were members of a trade union. Almost 45% of workers were not unionized which can be attributed to the reported discouragement from the management. The findings in this study, however, contradict the reports advanced by Omosa *et. al.* (2006) and Riddselius (2011) where only a few cut flower workers were members of KPAWU. Thus, there is improvement in trade unionism among workers in cut flower farms in Kenya. Increase in membership to trade unionism increase the voice of workers, and thus opens an avenue of protection from poor working environment.

The study sought to establish whether or not there was variation in membership to trade unionism in the three regions. Some of the factors that contribute to trade unionism in a region are sensitization of the members, intimidation or not by the employer and the remuneration of workers and their terms of the employment. The variable on membership to a trade union was therefore cross tabulated with three regions of Naivasha, Thika, and Nanyuki. In Nanyuki and Naivasha 51.9% and 49.5% respectively were not members of a trade union. Thus, Thika was the highest (61.1%) in trade unionism. During FGD carried out in Nanyuki, it was observed that majority of workers were not unionized due to discouragement by the management in their respective farms. According to Edward and

Saviour (2002), trade unionism is an effective means of improving wages and securing other extrinsic rewards from work like working condition and labour relations. Thus, when workers fail to join unionism there is likelihood of unfavourable workers welfare and in extreme cases abuse of their rights.

One of the reasons why members in cut flower are not unionized is due to weak leadership and lack of trust, as reported by Beyene (2014). According to a key informant from Nanyuki, the leadership of trade union for workers in cut flowers farms was not vibrant "due to lack of facilitation and motivation from the main office". Further, during a key informant interview with a trade union official from Nanyuki it was established that "trade union officials rarely visit the farm in the far rural areas due to lack of facilitation resources like means of transport." Leipold and Morgante (2013) observed that low membership to a labour union in cut flower farms was attributed to discouragement by the management. Lastly, the workers perceived trade union as weak in addressing their needs. During FGD in Naivasha, one participant said:

> workers do not seek any help of the trade union because they can't manage to tame the management of the farm. The management does as it likes with a lot of impunity. When a worker has an issue with management which he/she thought that it can be addressed by the trade union it is better to put it underneath as reporting it to trade union will only bring more problems.

Accordingly, Morgante and Leipold, (2013:16) observed that workers who joined the trade union were discriminated, denied promotion, easily sacked and denied access to the farm by the management. These issues are common when a trade union is weak, thus failing to address workers' needs without intimidation. Gudeta (2012:36) argues that trade union addresses the workers' needs by demanding for improved pay and working conditions.

The study attempted to measure whether or not the trade union was addressing the workers' issues. The trade union is expected to present the voice of the workers by

expressing workers' grievances (Bender & Sloane, 1998). The variable was operationalized by asking workers, **in case of grievances by workers, whether the union acted on their behalf**. This variable was measured at ordinal level. In response, a majority of workers (44.1%) reported that the union sometimes acted on their behalf while 24.5% of workers said that the union always acted on their behalf. Another group, 31.4%, observed that the trade union has never acted on their behalf. This shows that the trade union was "at least" acting on the grievances of the workers, at 68.6%. Thus, it can be deduced that trade union was able to address the workers welfare although not at 100% due to lack of facilitation as earlier reported by workers.

Our study also sought to establish the variance in response to whether or not the trade union acted on behalf of workers in case of grievances by workers across the three regions (Naivasha, Nanyuki, or Thika). Findings in this study shows that 51.9% of respondents in the farms located in Nanyuki observed that the trade union had never acted on behalf of workers in case they forwarded their grievances, while in Naivasha and Thika, the same response stood at around 27%. However, in Naivasha a majority, 53.8% reported that the trade union sometimes acted on their grievances. Thus, the trade union in Nanyuki was less active at addressing workers grievances in comparison with Thika and Naivasha.

The study attempted to establish **the perception of workers on the contribution of non-state actors in safeguarding their welfare** in the cut flower industry. To measure the statements on perception of workers on the contribution of the non-state actors in the industry, a likert scale comprising of five variable values namely, "Strongly Agree", "Agree", "Indifferent", "Disagree", and "Strongly Disagree", was used. The statements used are indicated in Table 4.6.

Table 4.6: The Perception of Workers on the Contribution of the trade union

Variables on perception on contribution of the trade union on workers welfare	Rating the perception of workers on the contribution of the trade union (%) on workers welfare					Total
	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree	
Workers in cut flower farms are allowed to join trade union freely	7.0	58.9	3.6	26.3	4.2	100
Trade union bargain for wages increase on behalf of the workers in the cut flower industry.	7.3	58.1	3.4	29.6	1.7	100

The views in Table 4.6 were put across to be measured. In the cut flower industry, trade unionism among workers has been low (Omosa *et. al.*, 2006). Therefore, the study sought to measure the whether or not **workers in cut flower farms are allowed to join trade unions freely.** According to Mlynska *et. al.* (2015:24), joining a trade union "is a fundamental right of cut flower workers because it allows them to defend their other rights by facilitating their ability to negotiate fair wages and benefits, receive backup, and learn about their rights."

Majority of workers (58.9%) agreed that they were allowed to join unions freely, while 26.3% disagreed. These findings were in contrast to the report by Ethical Trading Initiative (ETI) (2005) on Kenya flower farms which observed that workers were not allowed to join trade unions, and the ones who were unionized were discriminated against. Thus there is an improvement in the cut flower farms on adhering on the policy on the freedom of association in the industry. Further, a different image is portrayed of the relationship between management and unionization of workers, which is a sign of growth of freedom of association among workers.

The study cross tabulated whether or not **workers in cut flower farms are allowed to join trade unions freely** with the regions to establish whether or not there was a variation. In Nanyuki, a majority of the workers (51.9%) disagreed that workers in cut flower farms were allowed to join trade union freely in comparison with Naivasha (23%) and Thika (19.4%) who gave the same response. Thus the findings shows that a majority of the workers in Nanyuki were not allowed to freely join the trade union. The findings are supported by the earlier study by Morgante and Leipold (2013) which had reported that joining the trade union was discouraged and, in some instances, it was punitive to workers where it had negative consequences like threats and discrimination. Thus, the workers in Nanyuki were not allowed to join trade unions freely, like their counterparts in Thika and Naivasha. As a result, they were unable to utilize their voice option through the trade union. In a situation where the practice of once freedom of association is truncated, the improvement of workers' welfare is also affected.

The study also measured the whether or not the **trade unions bargain for wage increment of workers in the cut flower industry**. Several studies have shown that trade unions have been active in negotiating for Collective Bargaining Agreements (CBAs) on behalf of the workers in the cut flower industry, leading to wage increment even though the wages were still low (Riddselius, 2011; Riisgaard and Gibbon, 2014; Morgante & Leipold, 2013). To measure the statement, a likert scale comprising of five variable values namely, "Strongly Agree", "Agree", "Indifferent", "Disagree", and "Strongly Disagree", was used. The results of analysis are in Table 4.6.

A majority of workers (58.1%) agreed that trade unions bargained for wage increment for workers in the cut flower industry, while 29.6% disagreed. 7.3% strongly agreed. These findings show that workers in the cut flower industry perceived that the trade union (KPAWU) was bargaining for wages increment on behalf of the workers, which is one of the perceived roles of the trade unions, (Hyman, 2001). Thus, the trade union may be fulfilling its mandate, despite the low wages of workers in the industry.

In **summary** this section establishes that; first, 53.4% of workers were members of a trade union which is a sign of improvement on unionization of the workers in cut flower industry. In Thika region, 61% of workers were not unionized in comparison with Nanyuki and Naivasha (around 50% each). The reason why some workers were not unionized includes discouragement by the management, lack of sensitization by the union officials and seasonal status of some of the workers. Almost 70% of workers perceived that the trade union "at least" acted their behalf in case of grievances. In Nanyuki over 50% of workers reported that their grievances not facilitated by the trade union in comparison with almost 30% each from Thika and Naivasha. Further, 59% of workers perceived that they had freedom of association which was high in Thika and Naivasha at 81% and 77% respectively in comparison with 42% in Nanyuki. Thus, majority of workers in Nanyuki were not allowed to join freely the trade union may affect their welfare. In addition, almost 60% of workers perceived that the trade union was bargaining for their wage increment, thus fulfilling its economic mandate which may positively affect their welfare.

4.6 The influence of the owners of capital on workers welfare in the cut flower industry

Our study also endeavored to establish the role of owners of capital on workers' welfare in the cut flower industry. The owners of capital in cut flower industry include the Multinational Companies (MNCs) and Local entrepreneurs. The state has allowed the penetration of foreign capital in the industry through the MNCs. The following variables were measured to establish the contribution of the owners of the capital on workers' welfare includes: a) relation between workers' wages and farm ownership; b) provision with Physical Protective Equipment (PPE) to workers in the cut flower farm; c) the performance of the PPE; d) the political option of workers; and e) the perceived working condition in the farm. Attempts were made to compare findings on these variables across different types of farm ownership. In Kenya, a majority of the cut flower farms are owned by the MNCs and are located at Naivasha (Meleseh and Helmsing (2010); Chege, 2012; Brown *et. al.*, 2003). Our study sample included four cut flower farms owned by MNCs, and nine farms owned by local entrepreneurs. Sampling of many farms owned by

the local entrepreneurs was informed by the location of the cut flower farm (either farm located in urban or rural area), among other characteristics attributed to the cut flower farms, which was aimed at ensuring that the data was representative.

The MNCS are perceived to offer favourable workers' welfare in relation to farms owned by the local entrepreneurs. Previous scholars (Omosa *et. al.*, 2006; Meleseh and Helmsing, 2010) attribute favourable workers welfare in farms owned by MNCs to their networks in the industry, large capital, technology, and accessibility to the cut flower market. However, "MNCs have come under scrutiny by the non-state actors (activist organization) for alleged violation of workers welfare especially low wages and poor working conditions" (Brown *et. al.*, 2004:293). The study attempted to answer the question: **Are wages of workers in the cut flower industry better in farms owned by the MNCs than local entrepreneurs?** Martins (2004) observes that farms owned by MNCs pay higher wages to workers compared to locally owned farms, thus being a reason of their preference in the developing countries.

This study established that the average monthly wages paid to workers in MNCs farms was KShs. 8552.90; the corresponding mean for farms owned by the local entrepreneurs wages was KShs. 8621.80. Thus, the average wage of workers in the farms owned by the MNCs was lower than that paid by local entrepreneurs. The monthly wages of workers were categorized into manageable categories to reveal the variations between the amount of wages paid by the MNCs and local entrepreneurs, as shown in Table 4.7.

Table 4.7: The workers monthly wages as per owners of capital

Range of workers' wages	Type of ownership		Total
	Multinational Company	Local entrepreneur	
less than KShs.5,001	19 (16.8%)	13 (5.3%)	32(8.9%)
KShs.5,001- KShs.7,000	22(19.5%)	72(29.4%)	94(26.3%)
Ksh7001-Ksh9000	19(16.8%)	85(34.7%)	104(29.0%)
KShs.9,001- KShs.11,000	35(31.0%)	46(18.8%)	81(22.6%)
KShs.11001- KShs.13,000	9(8.0%)	12(4.9%)	21(5.9%)
KShs.13001- KShs.15,000	6(5.3%)	7(2.9%)	13 (3.6%)
More than KShs.15,000	3 (2.7%)	10 (4.1%)	13(3.6%)
Total	113 (31.6%)	245(68.4%)	358(100)
Pearson Chi-Square	30.905	df=6	Asymp. Sig. (2-sided).0001
P-value	Sig 0.0001		

The data in Table 4.7 shows that the distribution of the workers' wages in both MNCs and local entrepreneurs' farms was statistically significant (Chi-square with 6 degree of freedom =30.905, p-value =0.000). The percentage of workers earning wages below KShs. 5, 001 in farms owned by MNCs (16.8%) was higher than that paid by local entrepreneurs (5.3%). Thus, high percentage of workers in farms owned by MNC earned wages below the legislated minimum wage of KShs. 5,436 for the unskilled workers in Kenya during the period 2015 in the agricultural sector (RoK, 2015). This shows that to a greater extent the MNC farms violated the government policy of paying their workers the legislated minimum wages. Almost 95% of workers in the cut flower farms owned by local entrepreneurs earned more than Ksh. 5, 001 in comparison with 83% of workers in MNC farms. Therefore, workers in the farms owned by the local entrepreneurs were better remunerated than in the farms owned by MNC.

Another aspect of workers welfare after remuneration is working conditions. Tierney (2008) observed that by exploiting labour, MNCs have been making immense profit which they repatriate to their countries of origin. This study further endeavoured to establish whether or not there was a variation in the working conditions of the workers in the cut flower farms owned by the MNCs and those owned by the local capitalists. Working conditions among workers in the cut flower farms is measured by provision of Personal Protective Equipment (PPE).

The study sought to establish whether there was **provision with PPE to workers in the cut flower farms**. Previous literature (KHRC, 2012; Ulrich, 2014; Opondo, 2002) had shown that the industry was exposing workers to health hazards by failing to provide them with PPE, thus affecting the working conditions in the industry. The variable was measured by provision of PPE at work place. Overwhelmingly, majority (95%) reported that they were provided with PPE. Past studies (Riddselius, 2011; Miller, 2012; Leipold & Morgante, 2013), reported low provision of PPE to workers.

Our study also sought to measure **the performance of the PPE provided by their employers in the cut flower farms.** The variable was measured by asking the workers to rate the effectiveness of the PPE they were provided with in the cut flower farms. The options were "Very Effective", "Effective", "Moderate", "Poor", and "Very Poor." In this study, "at least effective" meant effective and very effective while "defective" meant poor and very poor.

The findings of this study shows that overall, 36.6% and 35.2% of the workers perceived the PPE as moderately effective and effective, respectively, in comparison with 13.7% who considered them to be poorly effective. Thus, 48.3% of the PPE were 'at least effective'. This was against the perception which had been created by some scholars (Leipold & Morgante, 2013) on the working condition of workers whereas the PPE were rated as defective thus exposing workers to health risks.

The variable on the effectiveness of the PPE provided in the farm was cross tabulated with the status of the ownership of the farm. This was done in order to measure whether or not there was a variation in usage of PPE provided by workers in the cut flower farms owned by the MNCs compared with those owned by the local entrepreneurs. The results are as shown in Table 4.8.

Table 4.8: The performance of PPEs provided by employers

The performance of the PPE	**Type of ownership**		**Total**
	Multinational Company	**Local entrepreneur**	
Very effective	23(20.4%)	24(9.8%)	47 (13.1%)
Effective	53(46.9%)	73(29.8%)	126(35.2%)
Moderate	25(22.1%)	106(43.3%)	131(36.6%)
Poor	11(9.7%)	38(15.5%)	49(13.7%)
Very poor	1(0.9%)	4 (1.6%)	5(1.4%)
Total	113 (31.6%)	245(68.4%)	358(100)
Pearson Chi-Square	24.64	df =4	Asymp. Sig. (2-sided).0001
P-value	Sig 0.0001		

In this study, 67% of workers in the MNC farms rated the performance of PPE as 'at least effective'; the corresponding figure for farms owned locally was 39.5%. Further, 10% of workers in the MNC farms reported that PPE were poorly effective, the corresponding figure for locally owned farms was 16%. Thus, the variation of the PPE which were 'at least effective' in MNCs and locally owned farms was at 30%. As a result, there was high likelihood of getting better PPE in MNCs' farm than in a farm owned by the local entrepreneurs. Thus, the status of the performance of the PPE in farms owned by MNCs is better than in farms owned by local entrepreneurs.

We also attempted to analyse the relationship between the employees' working conditions and ownership of the farm. Several studies suggest that the working conditions in firms owned by MNCs are better off compared to that of firms owned by local entrepreneurs (Sutherland, 2003; Brown *et. al.*, 2004). The variable was measured by asking the workers to describe **the perceived working conditions in the farm**. The options were: 1. Excellent 2. Good 3. Fair 4. Poor 5. Very Poor. Here 'at least good' means "excellent" and/or "good" while 'at least poor' means "poor" and "very poor". The variable was cross tabulated with that on the status of the farm ownership, as captured in Table 4.9.

Table 4.9: Employees' Working Conditions and Ownership of the Farm

Description of the Working Conditions in the Farm	**Type of ownership**		**Total**
	Multinational Company	**Local entrepreneur**	
Excellent	6 (5.3%)	13 (5.3%)	19 (5.3%)
Good	55 (48.7%)	103 (42.0%)	158 (44.1%)
Fair	32 (28.3%)	94 (38.4%)	126 (35.2%)
Poor	14 (12.4%)	30 (12.2%)	44 (12.3%)
Very poor	6 (5.3%)	5 (2.0%)	11 (3.1%)
Total	113 (31.6%)	245(68.4%)	358(100)

Table 4.9 shows that 63% of the workers in farms owned MNC perceived working conditions as 'at least good'. Corresponding percentage of workers who perceived the working conditions in locally owned farms was 47%. This shows that the perceived working conditions in farms owned by MNCs were slightly better than the farms owned by local entrepreneurs. On the other hand, 18% of workers in the farms owned by MNCs perceived working condition as 'at least poor' the corresponding figure for locally owned farms were 14%. Thus, our findings concur with the finding in a report by Martins (2004) who noted that the working conditions for employees working MNCs' farms are exposed to slightly better working condition than their correspondents in locally owned cut flower farms.

In **summary,** this section has established that: First, the average monthly wages paid to workers in MNCs farms was KShs 8, 558 in comparison with KShs 8, 621 paid in the farms owned by the local entrepreneurs. Thus, farms owned by the MNCs had lower average monthly wages in comparison local entrepreneurs' farms. Second, there were more workers in farms owned by MNCs (16.8%) earning monthly wages below Kshs 5001 than in locally owned farms. Thus, majority of workers in farms owned by MNCs farms earned wages below the legislated minimum wage of Kshs 5436 for the unskilled workers in Kenya during the period 2015 thus violating government policy. Third, majority of the workers (48.3%) perceived that the PPE in all farms were "at least effective". However, the percentage of workers who perceived the PPE as "at least effective" in the farms owned by MNCs was 67%; the corresponding percentage for workers in the farms owned by local entrepreneurs was 40%. Hence, the PPE in the farms owned by MNCs were perceived to be more effective than those from farms locally owned farms. Finally, the perceived working conditions for workers in farms owned by MNCs was slightly better at 54% than in farms owned by the local entrepreneurs (47%). Thus, the perceived working conditions enjoyed by workers in the farms owned by MNCs were slightly better off than in locally owned farms.

4.7 The Impact of Market Accreditation Agencies on Workers' Welfare

This section explores how the market accreditation bodies in the cut flower industry impact on the workers' welfare. These accreditation bodies are both local and international. The local accreditation bodies include the Kenya Flower Council (KFC) and the Fresh Produce Exporters Association of Kenya (FPEAK). The international accreditation bodies include MPS-Socially Qualified (MPS-SQ), Fairtrade, the Flower Label Programme and Rainforest Alliance. According to Caestecker (2012) the accreditation of the farms in the cut flower industry is leading to improvement of the workers' welfare. Table 4.10 shows the status of accreditation of the selected farms across three regions.

Table 4.10: The status of the certification of the farm per region

Status of accreditation of the farm	Region of the Farm			Total
	Naivasha	Thika	Nanyuki	
Certified	5 (55.6%)	3 (33.3%)	1 (11.1%)	9(69.2%)
Non-certified	2 (50%)	1(25%)	1(25%)	4 (30.8)
Total	7 (53.8%)	4 (30.8%)	2(15.4%)	13 (100%)

Out of the total thirteen farms covered by this study, we established that nine farms were certified while four were not. There were five certified cut flower farms in Naivasha, three farms in Thika, and, finally, one farm was certified in Nanyuki. This study endeavoured to establish the whether or not social auditing of the farms affects the workers welfare. The issues analysed were: a) the description of the working conditions of the workers, b) training in health and safety practices, and c) workers' wages.

The variable on the status of the working conditions in the farm was cross tabulated with the status of certification of the farm to establish whether or not there was variation between certified and non-certified farms. According to a report by Omosa *et. al.* (2006), the working conditions for workers in the certified farms were better than in non-certified farms. The options for status of working condition in the farm were "Excellent", "Good", "Fair", "Poor", and "Very Poor". In this study "at least good" means good and excellent and "at least poor" means poor or very poor.

Our findings in this study shows that 58.2% of workers in certified farms reported that their working conditions in the farm was "at least" good; compared to 29.4% from non-certified farms. On the other hand, only 7.2% in certified farms reported the working condition in their farms to be "at least poor" in comparison with 33.9% in non-certified farms who reported the same. Thus, majority of workers in certified farms perceived the working conditions for workers to be relatively better off, in comparison with workers in non-certified farms. Further, the workers in the non-certified farms who perceived the status of the working condition of workers as "at least poor", was almost five times the percentage who perceived the same in certified farms. A previous study by Riisgaard and

Gibbon (2014) had reported that certification of the farms was doing good work, especially on the working conditions of workers. As a result, certification of the flower farms affects workers working condition. This was attributed to the motivation of adhering to the cut flower market requirements by the certified farms whose aim is selling their products to the international market. Thus, workers in the certified farms benefits from certification.

The working environment of employees is also improved by training on health and safety practices. Caestecker (2012) reports that the certification agencies insist that workers should be trained on health and safety practices thus improving the working condition. Workers are entitled to **training on health and safety practices** in the cut flower farm. This reduces the risk of workers against health hazards and accidents in the farm. Thus, the study sought to find out whether or not the workers were provided with the trainings on health and safety in the farms covered. Findings of our study show that majority of workers (84.4%) were trained in health and safety practices.

The study attempted to establish whether or not there was variation on training on health and safety practices in certified and non-certified farms. Our study thus sought to cross tabulate the data with the status of the certification with training provided on health and safety practices, to establish whether there was a variation between the certified and non-certified cut flower farms. Accordingly, 94.4% of the workers in the certified farms reported that they were provided with training in health and safety practices in comparison with 61.5%in non-certified farms. Thus, in certified farms nearly 100% of workers were provided with trainings in health and safety services. Therefore, workers in the certified farms may not be as exposed to health and safety hazards like workers in non-certified farms due to health and safety related trainings.. Therefore, workers in non-certified farms are prone to health and safety hazards due to lack of vital information in the said fields. Raynolds (2012) writes that the workers in a certified farm must be trained on health and safety practices at least annually. The workers in certified farms are thus, equipped with important knowledge on health and safety practices, especially in dealing with health hazards and accidents in the farms.

Workers' welfare is also informed by their wage. According to study by Caestecker (2012) workers in certified farms were better remunerated than workers in non-certified farms. The study to establish whether or not there was variation in wages earned by workers in certified and non-certified farms. This was meant to establish whether or not certification had impact on workers' wages. The variable on the workers' monthly wages was cross tabulated with the variable on whether or not the farm was certified as shown in Table 4.11.

Table 4.11: Workers' Wages and the Status of Certification in the Farms

Range of workers' wages	**Certification status of the farm**		**Total**
	Certified	**Non-certified**	
less than Ksh5001	22 (8.8%)	10 (9.2%)	32(8.9%)
Ksh5001-Ksh7000	55 (22.1%)	39 (35.8%)	94(26.3%)
Ksh7001-Ksh9000	62 (24.9%)	42 (38.5%)	104(29.0%)
Ksh9001-Ksh11000	65 (26.1%)	16 (19.8%)	81(22.6%)
Ksh11001-13000	20 (8.0%)	1 (0.9%)	21(5.9%)
Ksh13001-15000	13 (5.2%)	0	13 (3.6%)
More than Ksh15000	12 (4.8%)	1 (0.9%)	13(3.6%)
Total	**249 (69.6%)**	**109 (30.4%)**	**358 (100%)**

Table 4.11 shows that majority of workers (44.1%) in the certified farms earned monthly wages of above Kshs 9001 in comparison with 21.6% of workers earning the same amount in non-certified farms. Thus the percentage of workers earning more than Kshs. 9,000 in the certified farms was doubly higher than those who earned the same amount in non-certified farm. Thus, the certified cut flower farms had relatively better wages for the unskilled workers in comparison with non-certified cut flower farms. This showed that certification matters in wages earned hence workers in certified farms are offered better wages. Further, the mean monthly wage for workers in the certified farms was Kshs. 9,134.60, with mode of Kshs. 5,000. The median monthly wage among the certified cut flower farms was Kshs. 9,000. These rates were weighed against the legislated monthly minimum wage for the unskilled workers in the agricultural sector in 2015 was Kshs. 5,

436.90 (RoK, 2015). Thus, the average monthly wage given to the workers in the certified farms in the cut flower industry was far above the legislated basic minimum monthly wage. However, the average minimum wage for the unskilled workers in the non-certified cut flower farms was Kshs. 7,379 and mode of Kshs. 5,000 with a median wage of Kshs.7, 100, which was lower than the wages in the certified farms. The findings concur with the report by Morgante and Leipold (2013) that the certified farms earned better monthly wages than the non-certified farms. Thus, certification appears to enhance monthly wage.

In **summary**, out of the 13 farms covered, nine farms were certified and four were not. 44.1% of the workers in the cut flower described the status of their current working condition as good, while 35.2% termed it as fair. Further, 58% of workers in certified farms described the current working conditions in the cut flower farms as "at least" good in comparison with 29.4% in non-certified farm. Therefore, the current working condition in the cut flower farms was "at least good", but it was much favourable in the certified farms than in non-certified farm. Secondly, 36% of the workers in the non-certified who perceived the status of the working condition was "at least poor", which was six time more than in certified farms. Thus, certification of the farms affects the working condition in the farm in a big way. Third, almost 100% of workers in certified farms were provided with trainings in health and safety practices in comparison with 62% in non-certified farms. Thus more workers in non-certified farms are exposed to risks of health hazards and accidents in comparison with their counterpart in certified farms thus practicing poorer welfare. Fourth, almost a 100% of workers in the certified farms perceived that the PPE were "at least effective" and moderately effective against the least 6% who perceived them to be "at least effective".

However, in non-certified farms, 35.8% perceived that the PPEs were "at least poor". Thus, the workers in certified farms had better off PPE in comparison with workers in non-certified farms. As a result, certification plays a greater role in ensuring the effectiveness of the PPEs used by the workers in the farms. Finally, 44% of workers in certified farms earned higher monthly wages of above Kshs 9001 in comparison with

21.6% in non-certified farms earning the same amount. In addition, the mean monthly wage for workers in the certified farms was Kshs. 9, 134.60, in comparison with Kshs. 7, 379 earned by workers in non-certified cut flower farms. Hence, workers in the certified farms earned better monthly wages than workers in non-certified farms. However, in both farms the workers' monthly wages was far below the living wages of Kshs. 18, 000-Kshs. 21, 545.

CHAPTER FIVE: STATISTICAL ANALYSIS

5.0 Introduction

Chapter Four presented univariate and bivariate analysis of the data. Univariate analysis dealt with the measurement of an individual variable at a time. On the other hand, bivariate analysis dealt with cross tabulation of data where relationship between two manifest variables was sought. In this chapter, we undertake a multivariate analysis of the data to establish, inter alia, the determinants of workers welfare. Previous studies have tended to measure the workers' welfare using wages. In this study, however, other determinants are also used. Multivariate analysis was carried out to measure the effects of the interaction between three or more independent variables on a dependent variable (Anderson, 2003). Thus, this chapter uses both bivariate and multivariate statistical analysis. Bivariate analysis is used to show the relationship between each of the independent variables with dependent variable.

In this study, there are six variables, five independent variables and one dependent variable. The dependent variable is the workers' welfare. The independent variables are the workers' remuneration, the state effectiveness, the non-state actors (trade union), market-oriented agencies and, type of the ownership of cut flower farm.

Multivariate analysis involves three processes. First, the factor analysis is done in each of the six variables (that is five independent variables and one dependent variable) to select a proxy factor with optimum weight. Second, a correlation analysis, in particular Pearson correlation, is carried out to establish the association between the workers welfare and each of the five independent variables. Finally, the study used stepwise multiple regression analysis. According to Jobson (1991:257) "*Stepwise regression* is a sequential process for fitting least squares models, where at each step a single explanatory variable is either added to or deleted from the model in the next fit." This procedure is undertaken to monitor the effects of different variables on the dependent variable- in this case workers' welfare. This regression analysis measures the contribution of each independent variable in a linear model of workers' welfare. The regression analysis thus allows

simultaneous interaction of different variables whose direct influence on one another may not have been anticipated in the study (Cohen *et. al.*, 2003). We start with the factor analysis.

5.1 Factor Analysis

The study conducted factor analysis to establish the most suitable proxy factors to present the latent variables to be used in correlation and regression analysis. The factor analysis determines the key proxy factors in a model (Cohen *et. al.*, 2003). Factor analysis reduces the number of variables for easier computation of correlation matrix.

There were six variables under study, namely, the workers' welfare, their remuneration, the market accreditation agencies, the effectiveness of the state, the type of the owners of the capital, and the role of the non-state actors. Among the six variables, five were predictor variables and one was a dependent variable. The independent variables predict the outcome variable (Grotenhuis and Thijs, 2015). The dependent variable is the workers' welfare, represented by seven manifest variables. The predictor variables were: the workers' remuneration with eight manifest variables, the market accreditation agencies with three manifest variables, and the effectiveness of the state which had seven manifest variables. Others were the owners of the capital with ten manifest variables, and the role of the non-state actors with eleven manifest variables. In total there were forty six manifest variables representing the dependent and independent variables.

Factor analysis using discriminant technique was used to establish the manifest variable that had the highest factor loadings to represent each of the latent variables (both dependent and independent variables). According to Anderson (2003), the factor with the highest loading is the most appropriate for consideration. Thus in this study, the factor that had the highest factor loadings in each of the latent variable was considered as the appropriate proxy factor to represent each of the variables under study.

The first variable to be subjected to factor analysis was the workers' welfare, which is the dependent variable. Seven manifest variables were analyzed to determine the proxy factor that could explain the workers welfare with maximum optimum than all the other variables. The manifest variables representing the dependent variable (workers' welfare) were: a) rating of the current wage of workers in the farm (WW1); b) comparison of the workers with those in other farms (WW2); c) provision of workers with training on health and safety in the farm (WW3); and d) workers' wages are increased regularly (WW4). Additional manifest variables were: e) presence of a rapport between the workers and employers in cut flower industry (WW5); and f) workers in cut flower farms are allowed to join trade unions freely (WW6). The measurement involved considering the variable with the highest factor loadings or high eigen values.

In the measurement of the dependent variable (workers' welfare) only one factor was considered, which had the highest eigen values of 1.94879. This shows that one factor can explain the dependent variables better than other factors. The following was the factor loadings of the manifest variable in ascending order: WW5 (0.6379), WW3 (0.6023), WW4 (0.5815), WW2 (0.5440), WW1 (0.5305) and WW6 (0.5134) (see Appendix 6). The proxy manifest variable with the highest factor loading selected was WW5 which had 0.6379. Thus in the subsequent analysis, workers' welfare was represented by variable WW5- presence of a rapport between the workers and employers in cut flower industry.

Workers' remuneration, an independent variable, was the second variable to be subjected to factor analysis. The study strived to establish a proxy manifest variable which would best explain the workers' remuneration. Eight manifest variables were considered in the analysis. These manifest variables were: a) workers satisfaction with the current wages (RW1); b) compensation of workers for extra hours (RW2); c) lack of compensation of extra hours (RW3); d) whether a worker is compensated in case of injury while on duty (RW4); e) whether the workers' rights are respected by the employers (RW5); f) basic wages (RW6); g) house allowance of workers (RW7); and h), the number of hours of work per day (RW8). Only one factor with the highest eigen values of 1.95163 was

considered. The following were the factor loadings of the manifest variable in ascending order: RW2 (0.827), RW3 (-0.786) and RW4 (0.5257). Other manifest variables had lower than 0.5 factor loadings which were deemed to be low (see Appendix 7). Therefore, the proxy manifest variable selected was compensation of workers for extra hours (RW2) with the highest factor loadings of 0.827. Thus it was used for further analysis.

The third variable subjected to factor analysis was the market accreditation agencies. It was represented by three manifest variables which were: a) where does your flower farm sell its product? (MPAA1); b) the status of the certification of the farm by market accreditation agencies (MPAA2) and c) the type of market accreditation agencies (MPAA3). Only one factor which had the highest eigen values of 1.38297 was selected in this case. The factor loadings for the manifest variables selected were MPAA2 (0.8315) MPAA3 (0.8308) and MPAA4 (-0.0366) (see appendix 8). Therefore, MPAA2 (status of certification) was used as a proxy manifest variable of the contribution of the market accreditation agencies because it was optimum in explaining the independent variable with the highest factor loadings of 0.8315. This meant that the contribution of the market accreditation agencies variable was explained at 83% by MPAA2. The status of the cut flower farm certification by the market accreditation agencies indicates that either a farm has adopted with the flower standardization codes or not.

The fourth variable subjected to factor analysis was the effectiveness of the state. The study measured the number of manifest variables to establish the most optimum variable to explain the role of the state. The role of the state was one of the independent variables in this study. Seven manifest variables were selected in analysis. These variables were: a) "is there a role played by the state to enhance cordial relationship between workers and employers?" (STATE1); b) whether or not the government has safeguarded the interests of workers in cut flower industry (STATE2); and c) whether government officials visit the farm (STATE3). Additional manifest variables were d) whether or not the government safeguards the interests of the workers (STATE4); e) whether there has been laxity by government officials in dealing with workers grievances in the industry

(STATE5); f) whether the government officials only listen to the employers' views (STATE6) and lastly; g) whether labour policies are implemented in the country (STATE7). The factor loadings of the manifest variables are shown in Appendix 9. Only one factor with the highest eigen values of 3.77952 was considered to explain this independent variable. The proxy manifest variable that had the highest factor loading of 0.8091 (STATE2) was whether or not the government has safeguarded the interests of workers in cut flower industry.

The fifth latent variable for factor analysis was the type of the ownership of cut flower farm in the industry. Ten proxy manifest variables were considered: a) 'whether or not wages are regularly increased by the management' (OC1); b) 'whether or not there is regular medical examination for workers' (OC2); c) 'whether or not workers are provided with chemical working devices by the employer' (OC3); and d) 'whether or not there is facilitation of training for workers' (OC4). Additional manifest variables were: e) 'whether or not in case of sickness the employer takes care of the sick worker' (OC5); f) 'whether or not in case airborne related sickness the worker is compensated by the farm' (OC6); and g) 'whether or not the farm offers trainings to workers on how to safeguard their health' (OC7). Others were: h) 'whether or not there were safety and health trainings of workers offered in this farm' (OC8); i) 'whether experts in health and safety related fields are hired by the employer to offer trainings for workers' (OC9), and j) 'whether or not workers are paid for service after completing five years at work' (OC10). Among the ten listed proxy manifest variables, only two had factor loadings of more than 0.9, which were 'whether or not the farm offers trainings to workers on how to safeguard their health'OC7 (0.9213) and OC8 (0.9094). Other manifest variables had lower factor loadings (see Appendix 10). Only one factor with the highest eigen values (5.05768) was considered; hence OC7 which had loadings of 0.9213. The selected proxy manifest variable explained 92% of the variable. Thus, OC7 was considered as the appropriate proxy for further statistical analysis.

The sixth latent variable was the role of the non-state actors in cut flower industry. In this study, the role of the non-state actors was considered to be an independent variable.

Factors analysis was conducted to establish the proxy manifest variable which is the most important in explaining the role of the non-state actors. There were eleven proxy manifest variables considered namely: a) 'membership of a worker to a trade union' (NSA1); b) 'benefits a worker enjoys for being a member of trade union' (NSA2); c) 'perception of workers on the response of trade union activities on the workers' needs' (NSA3); and d) 'visitation by trade union official to a worker in the farm' (NSA4). Others were: e) 'whether or not the labour union handles the grievances from the workers' (NSA5); f) 'trade unions in cut flower industry fight for the rights of workers' (NSA6); g) 'trade unions do not represent the interests of workers' (NSA7) and h) 'trade unions assist employees to renew collective contracts' (NSA8). Finally, there were: i) 'trade unions organize employee studies on various laws and regulations for safety in production' (NSA9); j) 'trade unions do not help out employees with difficulties' (NSA10), and k) 'the trade unions regularly bargain for wages increase on behalf of workers in cut flower industry' (NSA11). Appendix 11 shows the factor loadings of all these variables. The study considered only one factor with the highest eigen value. The proxy manifest variable (NSA6) had the highest factor loadings of 0.8943, and was therefore was selected as a predictor variable.

Finally six proxy variables with optimum results which included one dependent variable and five independent variables were selected for further statistical analysis specifically in correlation matrix and multivariate regression analysis.

5.2 Correlation Analysis

The study sought to establish whether the selected variables in this study were associated. Correlation analysis test shows the strength and direction (either positive or negative) of the relationship between the dependent and independent variables (Samuel & Okey, 2015). Pearson correlation coefficient, which is symbolized by r is used to measure the association of the variables. It ranges from -1 to zero to +1, where both means perfect relationship which can be either in perfect positive or negative correlated. The closer the r is to one the stronger the stronger the relationship between the variables and closer to zero the weak the relationship between the variables (Harper, 1991:175).The variables

correlated are the workers' welfare, study dependent variable and the five selected independent variables. The selected independent variables includes: the workers welfare, their remuneration, contribution of the market accreditation agencies, the effectiveness of the state, the type of the ownership of the cut flower farm, and the role of the non-state actors. The correlation matrix is shown in Table 5.1.

Table 5.1: Correlation Matrix

Variable	Workers' Welfare	Effectiveness of the state	Type of the ownership of cut flower farm	Workers' remuneration	Market Accrediting Agencies	Non-state Actors
Workers Welfare	1.0000					
Effectiveness of the state	0.4593	1.0000				
Type of the ownership of cut flower farm	0.2855	0.3823	1.0000			
Remuneration of Workers	0.3507	0.3840	0.4588	1.0000		
Market Accrediting Agencies	0.3487	0.2618	0.2192	0.3844	1.0000	
Non-state Actors	-0.2085	-0.2028	0.0699	-0.0313	-0.0703	1.0000

Table 5.1 shows that there was either positive or negative association among all variables. The first variable for correlation analysis was the effectiveness of the state (STATE2) in safeguarding workers' welfare (WW5). The workers' welfare is affected by the state through legislation and enforcement of labour policies. The state plays its part in enforcing labour policies and laws. Since the state labour policies are designed to improve working conditions, their enforcement should increase workers welfare (Migdal, 1988). The variable (STATE2) is moderately correlated with the workers welfare (r =

+0.46). This shows that the effectiveness of the state variable is very important as a factor in workers' welfare. The state is involved in legislation and enforcement of minimum wages and health and safety practices (Dolan *et. al.*, 2003). Although, the expectation of the study was that the association between the workers welfare and the enforcement of the labour policies would be strong, the analysis shows moderate correlation. This raises the question as to why the association between the effectiveness of the state and workers welfare in cut flower industry is not strong. According to Nowakowska (2015), the implementation of labour policies like minimum legislated wages, working conditions by the state have not been strongly felt in the cut flower industry. Thus, the government effectiveness in implementation of the labour policies is yet to be felt by workers, despite the state being mandated in legislation and implementation of labour laws and policies. According to KI in Naivasha, implementation of labour policies in the field is hampered failure of facilitation of the government officials especially in the field, in form of human, infrastructural and financial resources.

In the second case, we were investigating the relationship between the market accreditation agencies (MPAA2) and the workers' welfare. More specifically, we are measuring whether or not market accreditation agencies affect the workers' welfare. This study is limited to social issues which generally focus on workers welfare. Certification of the farm plays a major role in improvement of workers welfare (Riddselius, 2011). The association between certification of the cut flower farm and workers' welfare was moderate (r = +0.35). The relationship between farm certification and workers' welfare had positive moderate association with workers' welfare. Thus, certification of cut flower farms is moderately important factor on workers welfare. Fidh (2008) argued that the certification cultivates good working conditions, thus has an influence on workers' welfare. As a result, improved accreditation of the cut flower farm could improve workers support with employer hence improving their welfare.

The third predictor variable of workers' welfare was remuneration (RW2). Some previous studies (Beyene, 2014; Odhong' & Omollo, 2014) used the concept the workers' welfare to mean remuneration. According to Mlynska, *et. al.* (2015), workers'

remuneration has a strong association with their welfare. The remuneration of workers was moderately and positively correlated with the workers' welfare (r=+0.35). This shows that beyond remuneration, there are other factors are equally important in workers' welfare. Further, according to a report by Hulst (2012), remuneration of workers in the cut flower industry has been so low, to be strongly correlated to workers' welfare. We agree with the view of Hulst (2012) as the workers in the cut flower industry continue to complain disparity of legislated minimum wages in Kenya.

The fourth predictor variable measured the extent to which contribution of the owners of cut flower farms (OC7) is associated with workers' welfare. Odhong' and Omollo note that the owners of the capital contribute to the industry by creating job for workers. Workers are employed in the farms where they earn wages which is a key component in workers' welfare. The relationship between (OC7) the ownership of farms and workers' welfare was moderate as indicated by the value of r=+0.29. Increasing ownership by farms by MNCs means increasing workers welfare. The ownership of the cut flower farm had a weak association with the workers' welfare. If anything, their contribution is indirect and would seem to emanate from the pressure by the market to enforce the working standards or from enforcing the labour policies (Riisgard & Gibbon, 2014).

The fifth predictor variable the role of non-state actors (trade unionism) (NSA6) was correlated with workers' welfare. Previous studies (KHRC, 2012) suggest that the correlation between the workers' welfare and trade unionism had led to the improvement of workers welfare in the industry. The result of correlation is that the workers' welfare and trade unionism was weak and negative (r = -0.21). Thus, the effectiveness of the trade union negatively leads to deterioration of workers' welfare. According to Morgante and Leipold (2013), there is little additional benefit to workers' welfare in joining the labour union as it increases the expenditure of workers due to additional fees drawn from their wages. Therefore, the association between workers' welfare and labour union is not always positive since it brings other challenges which are detrimental to the same welfare.

In **summary**, in correlation analysis the study established that the workers' remuneration, the effectiveness of the state, the contribution of owners of the cut flower farm and the effect of accreditation agencies are positively associated to workers' welfare. The best predictor in influencing workers' welfare (in a declining order of magnitude) was the effectiveness of the state, workers remuneration and finally the status of accreditation of the farm. However, the non-state actor (trade union) is negatively related to workers' welfare. Thus, the role of the trade union in safeguarding the workers welfare is negatively felt by the workers. This could be attributed to the fact that their voice and operation is usually heard and felt only when there is a conflict between the workers and the owners of the cut flower farms. In correlation analysis we have discussed how the workers welfare tends to change in case of change in each of the five selected predictor variables. Hence in regression analysis we will predict the nature of the relationship between the five selected variables either individual or combined on the outcome variable (workers welfare).

5.3 Multivariate Regression Analysis

In the previous sub-section we correlated five independent variables with a dependent variable (workers' welfare). In this sub-section, we will focus on multivariate regression analysis. The regression analysis provides estimates of values of the dependent variable from the values of the independent variable (Gupta, 1969:453). Thus, multivariate regression analysis measures the effects of the different independent variables on the dependent variable. Y is the dependent variable, while X_i is the independent variable while B_i is the weight of the each of the independent variable. A regression model was created which had five regressors (independent variables) and an outcome variable.

The regression model is:

$$\mathbf{Y=} B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + \text{Error Term, } \mathbf{whereas}$$

Y= Workers welfare; B_0 =Constant; X_1 = the effectiveness of the state; X_2 = Owners of cut flower farm; X_3 = Workers' remuneration; X_4 = Market accreditation agencies and X_5 =contribution of non-state actors

Thus the model is:

Workers welfare=Constant + B_1 The role of State + B_2 Owners of capital + B_3 Remuneration of workers + B_4 Market accreditation agencies + B_5 Non-state actors + Error Term

To start with, in this study we attempted to measure the fitness of the model and the analysis of variance (ANOVA). ANOVA predicts the optimum results given out as a result of model after combination of independent variable on the dependent variable in a regression model (Waldpole *et. al.*, 2012). The model sum square was 165.728 at 5 degrees of freedom, with mean squares of 33.1455. The Total Sum Square (TSS) was 408.2034, while Total Mean Square was 0.6889. The R-squared was 0.3976 and was statistically significant at 0.0001; thus the probability of error was at 99.9%. The R-Squared of 0.3976 shows that the model measurement of the variance, explained at least 40% of the workers welfare.

Multivariate analysis was carried out to establish the key determinants of the workers welfare in this study. More specifically, three types of models were estimated namely logit, probit, and OLS (Ordinary Least Squares) to determine the one which could best explain the workers' welfare. The predictor variables in the logit model explain 23% of the workers' welfare, the probit model explains 24% and OLS model accounts for 31%. The OLS was the most appropriate model due to its high measure of explanation of workers' welfare. According to Karlson, *et. al.* (2012), in OLS there is no assumption made on the data about the distribution of the error term which limits it, while logit assumes data being logistically distributed. On its part, probit assumes normal distribution of data from the sample. The probit regression model was preferred because of the normality of the distribution in the data could not be rejected. The sample came from a large population which was normally distributed. Thus probit regression analysis was the most probable to give the optimum results for the measurement of the model which could explain the dependent variable in this study. For optimum measurement of the model dummy variables for each of the variable (both regressors and outcome variables) were created.

According to a study by Grotenhuis and Thijs (2015), the dummy variables best coded as convert all their categories into dichotomous variables with a 0/1 coding to facilitate the interpretation of the estimates for coefficients on dummies. Like other variables explanatory dummy variables can be interacted with their continuous counterparts (Jobson, 1991). The dummy workers' welfare variable was defined as 1=favorable workers welfare, 0=otherwise, and was represented by proxy variable WW5.

The following five dummy variables for independent variables were constructed.

a) The dummy for remuneration of workers variable was defined as 1=high, 0=otherwise. The variable was represented by proxy variable as RW2.

b) The dummy for the role of state variable was defined as 1=implementation of labour policies, and 0=otherwise. The variable represented by proxy variable as STATE2.

c) The dummy for market accreditation agencies variable was defined as 1= certification of the farms, 0= otherwise. The variable represented by proxy variable as MPAA2.

d) The dummy for the type of ownership of the cut flower farm variable was defined as 1= MNCs, 0=otherwise. The variable represented by proxy variable as OC7.

e) The dummy for the non-state actors variable was defined as 1=effective, 0=otherwise. The variable was represented by proxy variable as NSA6.

The linear regression model was measured using the probit regression. It involved dependent variable and five independent variables. Thus,

$$\mathbf{Y} = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + \text{Error Term}$$

Therefore,

Workers welfare (WW5)=Constant + B_1 The effectiveness of the state (STATE2) + B_2 Owners of capital (OC7) + B_3 Workers' remuneration (RW2) + B_4 Market accreditation agencies (MPAA2) + B_5 Non-state actors (NSA6) + Error Term.

The model shows the key determinants of the workers welfare. According to Dolan *et. al.* (2003), the workers welfare involves both wage and non-wage benefits which are determined by the company, though other players like certification bodies play a great role. Thus, there are several determinants of the workers welfare, which include the state, owners of the capital, remuneration of workers, market accreditation agencies, and the non-state actors, specifically trade unions. The presence of these determinants in cut flower has both direct and indirect effects on workers welfare. Thus the five independent variables were measured using the dummy variables to establish the they affect the dependent variable as shown in Table 5.2.

Table 5.2: Probit Regression Results: Dependent variable is WW5

Variables	**Probit Indices (Workers Welfare Index)**				**Marginal Effects (Change in probability that workers are better off)**			
WW5	Coef.	Std. Err.	Z	P>z	dy/dx	Std. Err.	Z	P>z
STATE2	0.862	0.1648	5.23	0.000	0.3319	0.0602	5.52	0.000
OC7	0.161	0.0831	1.94	0.052	0.0633	0.0326	1.94	0.053
RW2	0.158	0.0787	2.01	0.044	0.0620	0.0308	2.01	0.044
MPAA2	0.698	0.1712	4.08	0.000	0.2724	0.0647	4.21	0.000
NSA6	-0.246	0.0776	-3.16	0.002	-0.0962	0.0305	-3.15	0.002
_cons	-1.141	0.3065	-3.72	0.000				
Number of obs = 358 LR X^2 = 120.49 Prob > X^2 =0.000 Pseudo R^2 = 0.2466								

Workers welfare=-1.141 + 0.862 (STATE2) + 0.161(OC7) + 0.158 (RW2) + 0.698 MPAA2 + (-) 0.246 NSA6 + Error Term.

The research attempted to measure the impact of the role of the state on the workers welfare through legislation and implementation of labour policies. The proxy manifest variable used for remuneration of workers was STATE2. A strong state plays a great role in improving the workers welfare through legislation and implementation of the labour

policies, rather than putting social control in the society (Migdal, 1988). The state had the highest predictable effect on workers welfare of 0.86. Thus, a unit increase in effectiveness of the state, improves the workers' welfare by 0.86. The improvement in the probability that workers are better off when the state effectiveness increases by one unit is 33.2%. As a result, when the state implements the labour policies in the cut flower industry, the probability workers are better off is 33% higher. According to a report by KHRC (2012), failure of the state affects the workers' welfare, thus leading to violation of their rights. Thus, the state is the most important determinant of workers' wellbeing. In our view, role of the state is a strong predictor on workers' welfare. The state legislate and implement the labour policies which are supposed to create a conducive working environment.

The study also sought to measure the effects of the type of the ownership of the farm on workers' welfare. The type of the ownership of the farm has an impact on workers' welfare. The MNCs have been condemned of paying workers meagre wages in spite of immense profits thy get especially in developing countries (Moore, 2010).The proxy manifest variable used for type of the ownership of the cut flower farm was OC7. The type of the ownership of the cut flower farm plays a key role in ensuring that the welfare of workers is improved in the cut flower farms. The impact of the ownership of the farm on workers' welfare is 0.162. Therefore, a unit increase in contribution of the ownership of the farm, improves the workers' welfare by 0.162. That is, the probability of having improved workers' welfare while a farm is owned by the local entrepreneurs is 6.3% higher than when is owned by MNCs.

The research further measured the impact of workers' remuneration on their welfare. The proxy manifest variable used for workers' remuneration was RW2. Previous studies including Freeman *et al* (2007), Dolan *et. al.* (2003) and Smith *et. al.* (2004), indicate that workers' wages have been low for a long time, thus affecting their welfare. Remuneration had a minimal impact of 0.158. A unit increase in workers' remuneration, improves the workers' welfare by 0.158. The probability of workers being better off as a result of a unit increase in remuneration improves by 6.2%. Thus, the direct impact of remuneration

of workers on their welfare was lower than the impact of the state on the same. As a result, the increase of the minimum wages is not enough on its own to improve the workers welfare. There are other factors that impact on the workers welfare, like the working conditions beyond monetary aspects (Dolan *et. al.*, 2003).

We measured the impact of market accreditation agencies on the workers welfare. The proxy manifest variable used for market accreditation agencies was MPAA2. The impact of the accreditation of the farms on workers' welfare was 0.698. The probability of workers being better off from a unit increase in accreditation of the farms improves by 27.2%. The impact of the accreditation bodies on workers' welfare is higher than that of the owners of the capital. This view is confirmed by Leipold and Morgante (2013) in their report argued that the improvement of workers' welfare in the cut flower industry was more evident after introduction of certification of the cut flower farm. As such, the cut flower farms which are compliant to certification have better working environment for workers than the one which are non-compliant. Thus, the certification of the cut flower farm influences the welfare of the workers in the farm.

We also attempted to measure the impact of non-state actors on the workers welfare in cut flower industry in Kenya. Non-state actors in the cut flower industry comprise mostly trade unions. The proxy variable used in non-state actors was 'trade unions in cut flower industry fight for the rights of workers' (NSA6). Trade unions play an important role, especially in negotiations of Collective Bargaining Agreements (CBAs) which impact on workers' welfare. A unit increase on the effectiveness of the non-state actor (trade union) decrease the workers' welfare by - 0.246 and decreases the probability of higher welfare by - 9.6%. This is attributed to weak unionization in cut flower industry. The workers in the cut flower industry expect a lot of benefits from the labour union. However the only time when the labour union is felt in the industry is mostly, during strike, dismissal or CBA negotiations. Thus, their impacts may not be felt as such in case the three scenarios are non-existent.

Finally, the expectation of the study was that the five determinants could exhaustively explain the dependent variable. The pseudo R-squared was 25%. According to a study by Memon *et. al.* (2013), when R^2 is at 25% its power of prediction and explaining the outcome variable is moderate. Thus the model has moderate explanatory power in explaining workers' welfare. In addition, R^2 of 0.25 is considered good in cross sectional analysis. It is usually referred to as being at the medium, thus having a substantial predictive and explaining power for the workers welfare. This means that the five selected independent variables (role of the state, contribution of owners of capital, remuneration of workers, contribution of accreditation agencies, and contribution of non-state actors) could only explain 25%. The constant was -1.141338, meaning that in case the entire variables are zero, the workers' welfare will be at -1.14, which is relatively low. Thus there are other factors which can be used to explain the workers' welfare but they were not part of this study like the size of the family, kinship ties with the management among others.

5.4 Interaction Effects and Hypotheses Tests

Table 5.2 shows regression results without interaction effects. In this section we introduce interaction effects to test precisely the hypothesis of the study. At this level we measure the effects of of interacted variables on the dependent variable. The question asked at this level is: What is the effect interacting two independent variables on the dependent variable? We explore whether or not there is an effect on the dependent variable which can either be positive or negative. According to Singleton *et. al*. (1988), a hypothesis is an expected but unconfirmed relationship between two or more variables. It predicts the form of the relationship showing the variable which affects the other.

$$\mathbf{Y} = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_1 X_2 + \text{Error Term}$$

The hypotheses were tested using probit regression analysis. Allison (1999) writes that for binary dependent variables, probit is the standard method of analysis especially where the interaction of the independent variables is sought. Five hypotheses were tested in this study. These hypothesis were: a) the interaction between the type of the owners of the cut

flower farm and workers wage has no effect on workers' welfare; b) the interaction between the status of certification of the cut flower farm and the type of the owners of the cut flower farm has no effect on workers' welfare; c) the interaction between the state effectiveness and non-state actors (trade union) has no effect on workers' welfare; d) the interaction between the owners of the cut flower farm and non-state actors (trade union) has no effect on workers' welfare and; e) the interaction between owners of the capital and the state effectiveness has no effect on workers welfare. The analysis of the results obtained in each of the hypotheses are discussed below.

Ho_1: The interaction between the type of the owners of the cut flower farm and workers wage has no effect on workers' welfare.

The workers welfare is affected by the types of the ownership of the cut flower farm and their remuneration. According to Omosa *et. al.,*(2006) and Martins (2004) note that farms which are owned by the MNC are attributed with favourable workers' welfare. Conversely, some MNCs' farms have been accused of paying low wages to workers in the cut flower industry (Brown *et. al., 2004*). Owners of cut flower farm decide the number of workers to be engaged in a farm which is dictated by the available capital, what need to be produced and the duration of production which is directly related to workers' remuneration. According to Marxist theory, the owner of capital buys labour power at a cost which has to be at the minimum for the private enterprise (cut flower farm) to make surplus (Ingham, 2013). Thus, when the variable on the type of ownership of cut flower farm is interacted with the remuneration of workers, we expect improved workers' welfare. The dummy variables for workers' wage (RW2), type of the ownership of farm (OC7) and interaction variable (var1) were created.

The dummy variables for the workers' wage (RW2) include where 1=workers compensated and 0=otherwise, type of the ownership of farm (OC7), 1=MNC and 0=local entrepreneurs. The variable on owners of capital and the remuneration were interacted to test the effects of the interaction on workers welfare between owners of capital and remuneration to come up with a new dummy variable on interaction, where 1= there is effect=1 and 0, otherwise. There were 358 observations and Pseudo R^2 was

0.109. Thus, the regressed variables which were the remuneration (RW2), owners of the capital (OC7) and the interaction of the two variables (the remuneration (RW2) and the owners of the capital (OC7)) explained only 11% of the workers' welfare as depicted in Appendix 12.

The results on interaction of variables show that the hypothesis **that the interaction between the type of the owners of the cut flower farm and workers wage has no effect on workers' welfare** cannot be rejected. The results show that the probability of improvement of workers' welfare due to the interaction between workers remuneration and the owners of capital is insignificant. However, the probability of improvement of workers' welfare increases by 18% for every unit change in their remuneration. Thus, when the workers' remuneration improves, their welfare consequently improves. A unit increase in capital ownership type is associated with 13% in the probability of workers being better off. There is no effect on workers welfare due to the interaction between the workers remuneration and the ownership of farm's capital. This arises because farm management can worsen the working conditions. Thus can the conflicting direction of the workers welfare and the owners of the capital be the cause?

Ho_2: The interaction between the status of certification of the cut flower farm and the type of the owners of the cut flower farm has no effect on workers' welfare.

The assumption of this hypothesis is that workers' welfare is affected by the interaction between the type of the owners of the capital and the certification of the cut flower farm. As a result, workers' welfare improves when the owners of the cut flower farm work closely with the certification agencies. According to Bolo (2006), owners of capital have allowed the social audits to be conducted with the aim of ensuring that the farms maintain favourable working environment for their workers. A dummy variable status of the certification of the farm (MPAA2) was created for certification, where certified =1 and non-certified=0. In the dummy variable, for the type of the owners of capital (OC7), 1=MNC and 0=local entrepreneurs. These two variables were interacted to create a dummy variable on interaction.

The study measured the impact of the interaction between the status of certification of a farm and the type of the ownership of the cut flower farm on workers welfare. The variables were regressed and the results were that the model explained the workers welfare at 13%. The interaction was not statistically significant as it was above 0.01 at 0.142, as depicted in Appendix 13. Thus, we cannot reject the null hypothesis that **the interaction between the status of certification of the cut flower farm and owners of the cut flower farm has no effect on workers' welfare.** The null hypothesis is not rejected because the coefficient on interaction of certification with owners of the capital is not different from zero. Thus the unit increase in certification improves the probability of farm workers being better off by 52.2%. Further, for every unit increase influence of the type of the ownership of the farm improves the probability of workers wellbeing by 16%. Thus, the certification of the farm is more important than the type of the ownership of the cut flower farm. However, the impact of interaction between the type of the ownership of the cut flower farm and status of certification of the farm is barely different from zero on workers' welfare. This finding suggests that what matters for the welfare of workers is the standardization of the farm activities. Farm certification and farm ownership has no impact on the workers' welfare. The results show that once certified, all farms are alike because they have been standardized. The standardization itself has an impact on workers' welfare. Thus, the important thing for workers' welfare is the standardization of the cut flower farm, irrespective of the type of the ownership of the farm.

Ho_3: The interaction between the state effectiveness and non-state actors (trade union) has no effect on workers' welfare.

We also sought to measure whether there was an impact on the of workers welfare due to interaction between the state in implementation of the labour policies and the effectiveness of non-state actors (that is trade unions). When the trade unions work closely with the state with the aim of improving the welfare of workers, the expectation of the study was that the welfare workers would improve. The report by ETI (2005) had recommended that the roles of the Kenya government and trade unions were vital in ensuring continuous improvement of the workers welfare.

The hypothesis was tested by measuring the three variables, thus the role of state, effectiveness of non-state actors, and the interaction between the role of the state and the effectiveness of the non-state actors. Dummy variables were created on the role of the state (STATE2), the effectiveness of non-state actors (NSA6), and the interacting dummy variable (var3) between the state (STATE2) and non-state actors (NSA6). The non-state actors is either 1=improves or 0=otherwise, the role of the state, 1=safeguards workers interests and 0=otherwise, enforcement and the var3 is dummy variable on the interaction between the state and non-state actors (that is trade union) which is equal to 1 if there is an effect=1 and 0, otherwise. The variables are then regressed and results are illustrated in Appendix 14. The $R^2 = 0.1710$. This shows that the model (combination of the three variables) explained only 17% of workers welfare.

The interaction between the role of the state and the effectiveness of the non-state actors were not statistically significant. Therefore, the null hypothesis is not rejected. Thus, there is no substantial positive impact on workers welfare through the interaction between the state and non-state actors. However, a unit increase of the state safeguarding the workers interests improves their welfare by 43.2% per unit increase of workers welfare. The change in probability of improvement of the workers welfare due to interaction between the state and non-state actors is statistically insignificant. The findings suggest that what matters to the workers welfare is not interaction between the state and non-state actors, but the state playing its role individually by enforcing the labour policies. A unit increase in the non-state actors' enforcement of labour policies reduces workers welfare by 7.2% for every unit increase of non-state activities. Thus, being unionized impacts negatively on the workers welfare especially due to reduction of the income and discrimination by the owners of the capital (Morgante & Leipold, 2013).

Thus the probability of collusion between the state and the non-state actors (that is, the trade union) will affect the workers welfare by favouring the policies which will serve the interests of the trade union at the expense of the workers welfare, like increasing the agency fees, which directly affects the workers welfare. Further, policies are like dosages to organisms so that if policies do not contain enough of what they should have to make

people better off, they will have no impact even if they are of the right kind, like a minimum wage. If a minimum wage increase is small, or its enforcement is weak, it should not be expected to have an impact on workers welfare. The interaction between the state and the trade unions is not possible as both always remain sceptical of one another. According to Edward and Saviour (2002), the state accuses the union of having a political agenda in its role of improving welfare of workers, while the union accuses the government of seeking to destroy the union by suppressing its actions. Thus the state and non-state actors are incompatible.

Ho_4: The interaction between the owners of the cut flower farm and non-state actors (trade union) has no effect on workers' welfare.

We endeavoured to measure whether there was an impact on the workers welfare due to interaction between the owners of capital and non-state actors. When there is close interaction between the owners of capital and trade unions, the result is exploitation of workers since both actors will work in favour of their own interests. The owners of the capital will maximize on the extraction of labour power and minimization of the wages, thus exploiting the workers (Popper, 1966). On the other hand, trade unions have been slow and therefore interaction with owners of the capital would lead to high rate of unionization of workers thus increasing the agency fees (Leipold and Morgante, 2013). A dummy variable was created interacting dummy variables, namely the owners of the capital (OC7) and non-state actors (NSA6). For non-state actors, is either 1=improves or 0=otherwise, owners of capital, 1=MNC and 0=local entrepreneurs and an interaction variable of owners of the capital and non-state actors were created. The dummy variable on the interaction between the state and owners of capital which, if there is an effect, it is =1 and 0, otherwise. The variables are regressed and the total observation was 358 and Pseudo R^2 was 0.124 which means that the three variables explained 12.4% of the workers welfare (see Appendix 15).

The null hypothesis is rejected (p = 0.000). Thus there is a remarkable negative impact on workers' welfare when there is an interaction between the owners of cut flower farm and non-state actors (the trade union). The case of interaction between the owners of cut

flower farm and the trade union can be disastrous to the wellbeing of workers. According to a report by Morgante and Leipold (2013:16) workers' welfare is negatively affected by the relationship between the trade union official and the employers in the cut flower farms. The improvement in the probability that workers are better off when the contribution of the owners of the cut flower farm increases by one unit is 31%. Further, the improvement in the probability that workers are better off when there is interaction between the owners of the cut flower farm and the trade union is effective decreases the workers wellbeing by 6%. When there is interaction between the MNCs and non-state actors, the probability of improvement of the workers welfare will reduce by 6%. Otherwise, if a farm is owned by local entrepreneurs, the probability of improvement of workers welfare due to interaction with non-state actors is 6% higher. Thus, the MNCs exploit the workers by colluding with non-state actors. The interaction between the trade union and the owners of the capital lead to effective collection of the agency fees which inversely affects the wage. Effect on workers wage directly impacts on their welfare.

Ho_5: The interaction between the owners of the cut flower farm and the state has no effect on workers' welfare.

We also sought to measure whether there was an effect on workers' welfare due to interaction between the state in implementation of the labour policies and the type of the ownership of the cut flower farm. A dummy variable on the role of the state (STATE2) was created where; 1=safeguards workers interests and 0=otherwise, the type of the ownership of the cut flower farm (OC7), 1=MNC and 0=local entrepreneurs and var5 a dummy variable on the interaction between the state and the ownership of the cut flower farm which is equal to 1=there is an effect and 0=otherwise.. These two variables were interacted to create a dummy variable on interaction (var5). The hypothesis was tested by measuring the three variables, thus the role of state (STATE2), the type of the ownership of the cut flower farm (OC7), and the interaction between the role of the state and the type of the ownership of the cut flower farm (var5). However, the results were statistically insignificant as shown in appendix 16. Thus, we did not continue to test this hypothesis.

5.5 Summary of Statistical Analysis

In this chapter the following is the summary of statistical analysis. First, among the five variables correlated on the workers' welfare, the effectiveness of the state had the strongest positive association at r = +0.46) while certification of the farm and remuneration of workers is also moderately correlated on workers welfare at r = +0.35. Thus, there are three determinants which are the effectiveness of the state, the ownership of the cut flower farm and the certification of the cut flower farms in Kenya have a positive influence on workers' welfare. Contrary, the role of non-state actors (trade unionism) is weak and negatively correlated at r = -0.21. The state effectiveness has the strongest influence followed by certification of the cut flower farm and ownership of the farm.

The great influence of the state in promoting the workers' welfare can be attributed to its role of legislating and enforcing the labour policies which directly affect the workers welfare. Second, in multiple regression analysis, among the five regressors, the state had the highest predictable effect on workers welfare at 0.86, while the status of certification was at 0.69. The state effectiveness has the strongest influence followed by certification of the cut flower farm and ownership of the farm. The trade union was probably the worst determinant of workers wellbeing in the cut flower industry at - 0.246.

Finally, among the five hypotheses and interaction of variables, one hypothesis was not tested as all its variables were statistically insignificant. Among, the remaining four hypothesis, we failed to reject three and rejected one. The hypothesis which was rejected theorized that: The interaction between the owners of the cut flower farm and non-state actors (trade union) has no effect on workers' welfare. The null hypothesis is rejected meaning; when there is interaction between the MNCs and non-state actors, the probability of improvement of the workers welfare will reduce by 6%. Otherwise, if a farm is owned by local entrepreneurs, the probability of improvement of workers welfare due to interaction with non-state actors is 6% higher.

CHAPTER SIX: SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

In this chapter, we present a summary of the key findings based on the aim of the study. The broad aim of this study was to investigate the extent to which protective mechanisms exists in the cut flower industry in Kenya. The study was guided by five specific objectives which were: a) to assess the extent to which wages commensurate with the workers welfare expectations; b) to establish the extent to which the workers' welfare is protected by the state; c) to establish the contribution of the non-state actors (e.g trade unions, civil right groups) to the welfare of workers; d) to establish the effect of ownership of capital (MNCs/local entrepreneurs) on workers welfare; and finally, e) to establish the impact of market accreditation agencies on workers' welfare. This chapter seeks to summarize findings related to the following: The socio-demographic profile of the workers, workers' remuneration, the role of the state, the contribution of the non-state actors, the effects of the type of cut flower ownership, and the influence of the market accreditation agencies on workers welfare. In addition, we present a summary of the major contributions of this thesis to knowledge on the cut flower industry in Kenya workers' welfare is presented. Further, this chapter presents a conclusion and recommendation drawn from the key findings. Finally, we recommend possible areas for further research, which arise as a result of glaring gaps established by the study.

6.1 The socio-demographic profile of workers in this study

This study endeavoured to investigate the extent to which protective mechanisms of workers welfare exist in the cut flower industry in Kenya by focusing on workers profile. The study covered 358 respondents drawn from three regions, namely Naivasha, Thika, and Nanyuki in Kenya. According to Morgante and Leipold (2013:7), 60% of the cut flower farms in Kenya are located at Naivasha. Therefore, these findings can be generalized in all cut flower producing regions in the country. The three regions had either urban, rural or both urban and rural socio-economic characteristics which depict the cut flower farms in Kenya.

The following are the key findings on socio-demographic characteristics of workers in the cut flower industry. Out of 358 workers the average age was 24.1 years. Therefore, the majority of the workers found in the industry are young and energetic. This finding supports Dolan et al (2003:29) who reported that the industry employ young workers between 18-24 years.

This study established that almost a half of workers (49%) had attained basic education (both primary and secondary education). This finding is supported by Omosa *et. al*, (2006:22) who reported that majority of workers in the cut flower industry had attained basic education. Hence, increasingly, the industry is attracting workers with high education. Thus, we can conclude that due to increase of workers with formal education, then their capability of making an informed decision regarding the status of their welfare is promising.

This study further found that a significant percentage of workers (43.3%) had technical skills. Most of these skills however, were not relevant to their work in the cut flower farms. Some of those technical skills were driving and vehicle mechanics, masonry and construction, saloon and braiding, computer skills, receptionist and Early Childhood Development training (ECD). Workers in this study reported that they are forced to join the industry due to high rate of youth unemployment. A report by Human Development Index (HDI) 2017 indicates that currently the unemployment rate in the country stands at 39.1% (UNDP: 2017).

In addition, this study established that almost 70% of workers were employed on permanent basis. This finding is in contrast with a previous report by Riddselius (2011:10) that posits that 65% of the workforce in the Kenyan cut flower industry is seasonally or temporarily employed. Thus this study shows that the employment status of workers is changing increasingly from being seasonal to permanent. One of the key factors changing the status of workers is promoted by the international and local market agencies. In support, Omosa *et. al*, (2006:2) reported that certification of the cut flower farms requires a farm to employ at least 70% of workers on permanent basis.

Last, this study measured job turnover of workers in the cut flower industry. The study shows that majority of workers (42.5%) had worked in their respective farms less than two years; 17.3% had worked for 3-4 years. Overall, almost 60% of the workers were engaged in their respective flower farms for less than four years which is an indication of high job turnover. According to a report by Beyene (2014), one of the major reasons behind high job turnover in the industry was low wages. This shows that the retention rate of workers in the cut flower farms is low. Among the three selected regions, Nanyuki had the highest job turnover with almost 80% of workers serving for less than two years while Naivasha had the lowest job turnover with 50% of the workers serving for more than five years. Therefore, this shows that job turnover is largely influenced by the geographical location of the cut flower farm. The cut flower farms located in the rural settings (such as Nanyuki) are prone to high job turnover. This trend is explained by the strong perception among the rural youth that better jobs are available in the urban settings such as towns and cities, while the farms located in an area with urban socio-economic attributes have high job retention.

6.2 Determinants of workers' welfare

This study attempted to identify factors that influence workers' welfare. Through correlation analysis, the study measured the following factors on workers' welfare: The workers' remuneration, the role of state, the contribution of non-state actors (trade union), the influence of the ownership of cut flower farms and the influence of market accreditation agencies on workers welfare. The following subsection will report the influence of each one of them. Further, at higher level regression analysis, probit regression was used to identify the best predictor of the workers' welfare. We constructed a probit regression model with the following regressors: The workers remuneration, the state effectiveness in enhancing workers' welfare, contribution of the non-state actors on protection of workers' welfare, influence of market-oriented agencies on workers' welfare and the effect of the ownership of cut flower farm on workers' welfare. In the following sub-sections, we provide the summary of the statistical analysis.

6.2.1 Findings on the remuneration of workers and their welfare

The second specific objective of this study focussed on the extent to which workers' remuneration commensurate with their welfare expectations. In this regard, this study established that majority of workers (82.4%) in selected cut flower farms were engaged in the farms for eight hours a day as stipulated in the labour law. This is in contrast with the previous studies (Riddselius, 2011; Beyene, 2014) which had reported that workers in the cut flower industry were overworked. Finding from our study suggests that most flower farms comply with the labour laws concerning overworking of workers. Past studies have posited that workers in the industry are paid low wages (Dolan, *et al*., 2003). Nonetheless, this study reveals that the average monthly wage for workers was KSh 8,600; this was higher than the legally stipulated government minimum wage of KShs.5, 436.90[8] in the agricultural sector. However, the study found that the average monthly wage (KShs. 8,600) was lower than the legislated minimum wage for un-skilled workers in the general sector, which wasKShs.10, 954.70 (RoK, 2015). Thus, in comparison with other unskilled workers in the general sector, workers in the cut flower industry had lower wages. This is in spite of both the agricultural and general sector employees working in the same geographical area and offering unskilled labour. Therefore, the state should harmonize the legislated minimum wages for unskilled workers in agricultural and general sector.

Using correlation analysis, the study attempted to measure the influence of workers remuneration on welfare. The results of correlation showed that workers remuneration was moderately influenced at r = +0.35. Thus, this finding shows that the employees' remuneration and workers' welfare are positively correlated such that increase of workers' wage led to improve of their welfare. In probit regression analysis, the study found that the workers' remuneration effects on workers welfare was at 6%. In this case, a unit change in workers remuneration, led to probability change of 6% on workers' welfare. Thus, the workers remuneration did not heavily influence the welfare as most people could have expected.

[8] This was the government minimum wage for unskilled workers in agricultural sector 2015. Since then, it has been revised to 6,415.55 per month (Rok, 2017)

6.2.2 The relationship between the role of the state and workers' welfare

This study also attempted to establish the extent to which the workers' welfare is protected by the state. According to Andrees and Belser (2009:100), one of the roles of the state is to protect labour policies through labour inspection systems which ensure enforcement of the policies. This study endeavoured to find out whether workers in the cut flower farms were paid higher or lower than the legislated minimum wage for the unskilled workers in the agricultural sector (KShs.5, 436.90). Based on the report from the workers, only 10% of unskilled labour reported that they were paid lower wage than the legislated minimum wage.

Further, the study attempted to find out whether or not the state was safeguarding workers' welfare in the cut flower industry. Ghani and Lockhart (2008) opine that the state ought to safeguard its citizens from exploitation. In this study, 65% of workers reported that the Kenyan state was not safeguarding their welfare in the industry. Hence, they were vulnerable to exploitation by the owners of the cut flower farms regardless of the existence of the state.

This study attempted to measure the influence of state effectiveness among other selected variables on workers' welfare. The study showed that the state effectiveness in enhancing workers' welfare had the highest influence with a modest value of r = +046. Thus, the state effectiveness enhances the workers' welfare in a great way in comparison with other actors like trade union, certification agencies and owners of the capital. However, the state alone cannot fully improve the workers' welfare. The state legislate labour policies like basic minimum wage and working condition policies thus it is an important determinant of workers' welfare.

In probit analysis, the state effectiveness was the best predictor of other selected variables on workers' welfare. The unit change on the state effectiveness, leads to a probability change of workers' welfare by 33%. This is a confirmation that the state effectiveness has higher effects on workers' welfare than other study's regressors. Therefore, this study

strongly affirms that the presence of the state matters which can be attributed to its role of legislating labour policies in the industry.

6.2.3 The findings on the contribution of the non-state actors on workers welfare

The third specific objective of our study attempted to establish the contribution of non-state actors (trade union) to workers' welfare. According to Edward and Saviour (2002:55), trade union membership is perceived as an effective means of improving workers' welfare as exemplified through increase of wages and improving working conditions. Thus, the study attempted to measure whether or not workers covered belonged to a trade union namely, KPAWU. The findings in this study show that over half of workers (53%) reported being members of a trade union within the industry. This is an improvement on unionization of the workers in cut flower farms in Kenya which was 17% in 2006 as reported by Nelson *et. al.* (2007: 66).

In correlation analysis, the effectiveness of the trade union (study's selected independent variable) in the cut flower farm was correlated with workers' welfare (study's dependent variable) and was found to be negatively associated ($r = -0.21$). Thus, the increase of effectiveness of the trade union led to deterioration of workers' welfare ($r = -0.21$). Further, Probit regression analysis, the study measured the probability effects of the individual or combined study's selected regressors on the study's dependent variable. The regressor in this case is the effectiveness of the trade union and the dependent variable is the workers' welfare. The study found that a unit change of the effectiveness of the trade union led to a probability of deteriorating of workers' welfare by 10%. This finding can be attributed to the agency fee paid by workers and their reciprocate benefits they get from the labour unions. The workers in the cut flower industry are conscious of the legislated minimum wages in Kenya which is lower than their fellow employees working in general sector. According to Leipold and Morgante (2013:16), workers in cut flower farms are required to pay an agency fee to a trade union to enhance its effectiveness which is deducted from workers' wage. The report by Nelson *et. al.* (2007: 66) confirms that agency fee is deducted from workers' monthly wages is inversely correlated with

workers' welfare. Hence, any deduction made on workers' wage negatively affects their welfare.

Finally, the study tested the hypothesis namely; the interaction between the effects of the type of the ownership of the cut flower farm (MNCs / local capitalist) and effectiveness of the trade union has no effect on workers' welfare. The null hypothesis is rejected at 0.005 using probit regression, with a remarkable negative impact on workers' welfare at -6%. The interaction between the type of the ownership of cut flower farms and the trade unionism can be disastrous to workers' welfare. Hence, there is a likelihood of deterioration of the workers' welfare at 6% in case of an interaction between trade union and the type of the ownership of the cut flower farm.

6.2.4 The influence of ownership of cut flower farm on workers' welfare

The fourth specific objective attempted to establish the effect of type of the ownership of cut flower farm on workers' welfare. To address this objective, this study cross-tabulated ownership of the cut flower farm with workers average monthly wage. The study found that the average monthly wage for workers in MNCs farms was KShs. 8, 558.20 in comparison with KShs. 8, 621.83 in the farms owned by local capitalists. Thus, the cut flower farms owned by the MNCs were paying lower average monthly wage compared to the farms owned by local entrepreneurs. This finding is supported by Pines and Meyer (2005) who report that the MNCs have been paying relatively lower wages, hence exploiting its workers in the firms located in the developing countries. The MNCs do business in foreign country with the aims of covering the costs of doing business in host country as well as maximizing their own profits. As a result, the MNCs wages are likely to be low as they try to minimize the costs of doing business in the host country.

In addition, the study attempted to find out whether or not both types of cut flower farms (MNCs versus locally owned) were adhering to the legislated monthly minimum wage (KShs. 5, 436.90) for unskilled workers in the agricultural sector. In the cut flower farms owned by MNCs, 17% of workers earned a monthly wage up to KShs. 5,001 in comparison with only 5% of workers in the farms owned by the local capitalists.

According to a study by Giuliani and Macchi (2013), this situation occurs due to lack of strong legal system to regulate MNCs' operations in the host country which, negatively affect the workers welfare. Remunerating workers with wages below the legislated wage is violation of government policy.

Further, the study attempted to measure the effectiveness of the PPE used by workers. Majority of workers (67%) in farms owned by MNCs reported that their PPE were "at least effective" in comparison with 40% of the same perception in farms owned by the local entrepreneurs. Thus, the report by workers shows that a slightly higher percentage of employees in the MNCs' farms enjoy better PPE in comparison with workers engaged in the farms owned by the local capitalists. Therefore, the MNCs farms provide better PPE despite paying slightly lower wages to workers than farms owned by local capitalists.

This study attempted to measure the association between the type of ownership of the farms and workers' welfare. The study established that the type of the ownership of the cut flower farm is positively associated to the workers' welfare at $r = +0.29$. Therefore, the improvement of cut flower farm leads to improvement of the workers' welfare. Thus, when there is growth in profit in a cut flower farm, there is a likelihood of workers being awarded with reciprocal benefits.

6.2.5 The influence of market accrediting agencies on workers' welfare

The fifth objective in this study was to establish whether or not certification had an influence on workers' welfare. The certification can be done by international agencies (which include MPS-Socially Qualified (MPS-SQ), Fairtrade, the Flower Label Programme and Rainforest Alliance) or local agencies (KFC and FPEAK) or both. Certification entails adhering to the standardization codes through certification schemes, codes of practice and consumer labels as laid down by the accreditation agencies (Rikken, 2011; Riddselius, 2011). The study first, endeavoured to establish the working conditions in certified and non-certified farms. 58% of workers in the certified farms perceived the current working conditions in the cut flower farms as "at least" good, in

comparison to 29% in non-certified farm. Therefore, almost double the percentage of workers in the certified farms reported better working conditions in comparison with workers engaged in non-certified farms. Hence, certification of the cut flower farms appears likely to influence workers' welfare.

Further, this study attempted to establish whether trainings on health and safety practices were offered in both certified and non-certified farms. Training of workers on codes enhances favourable working environments in the cut flower farms thus improving the workers' welfare (Nelson *et. al.*, 2007). This study established that the trainings on health and safety practices were more intensified in certified farms with almost 100% of workers being engaged in these trainings, compared to 62% trainings offered in non-certified farms. Most likely, market accreditation agencies put more emphasis on trainings in health and safety practices in the certified farms.

In addition, the study measured any wage variation between certified and non-certified cut flower farms. This study found that workers in the certified farms had average monthly wage of Kshs. 9, 134.60, in comparison with Kshs. 7, 379 earned by workers in the non-certified cut flower farms. Therefore, workers in non-certified farms were paid relatively lower wages than those in certified farms. The average wages paid to workers in certified and non-certified farms were above government legislated minimum wage for unskilled workers (Kshs.5436.90) of 2015 (RoK, 2015). Thus, the average monthly wages for workers in the cut flower industry was lower than the real wage of Kshs. 18, 000-Kshs. 21, 545 in 2010 (WWW, 2013). Therefore, workers in both certified and non-certified cut flower farms earn far less from the real wage thus being part of the working poor.

Last, the study attempted to measure the effect of the five selected regressors (influence of certification in particular) on workers' welfare. The result of the measurement was that a unit change in certification of a cut flower farm, leads to a probability change on workers' welfare by 27%. Therefore, the influence of certification was second best

regressor on their welfare. This means that certification of the cut flower farm matters on improvement of workers' welfare.

6.3 Conclusion

This study make precise conclusions derived from the study's findings. This study established that almost half of the 358 workers covered (48.9%) had attained secondary education while at least 40% had technical skills though not relevant in their current place of engagement. The percentage of workers with basic education was higher than what was reported in the previous studies. From this we can conclude that the percentage of workers with higher education is starting to grow in the cut flower farms.

Out of 358 sampled workers in the cut flower farms, majority were engaged on permanent basis but engaged in the cut flower farms for less than four years. Therefore, the industry had a low retention of its workers. This may be a sign of unfavourable working welfare, thus workers move out in search of better alternative.

In this study, the average monthly wages of workers in the cut flower farm was Kshs 8,600 and mean family size was 3.57 members. It is also noted that the computed monthly living wage for a family of two children was Kshs. 21,545. This shows a large disparity between the computed living wage and the average minimum wage earned by workers in the selected regions. The difference between the real wage and workers average wage was more than double. Therefore, we can conclude that majority of workers in the cut flower industry were truly part of the working poor.

The study findings revealed that the state effectiveness was the most important variable in enhancing workers' welfare at $r = +0.46$ in cut flower industry. However, the presence of the state notwithstanding workers in the cut flower industry, continue to earn low wages and are engaged in poor working conditions. Therefore, we can conclude that although the state is important in influencing workers' welfare, its effectiveness has been lowly perceived by workers in the cut flower industry. This scenario is attributed to the

laxity of its officers who are mandated to implement policies on the workers' related issues on the ground.

In the cut flower industry, there has been increase in trade unionism among the workers in the selected regions. However, over 60% of workers perceived that the trade union acted on their behalf with regard to wages and their grievances. However, overall, the trade union has been ineffective in fostering better wages and working condition. According to Dolan (2008), this could be attributed to laxity by trade union in safeguarding workers' welfare.

The type of the ownership of the cut flower farms (either owned by the MNC or local capitalist) influences the workers welfare. The workers engaged by MNCs' cut flower farms were paid lower wages than workers in the farms owned by the local capitalists. The MNCs' farms paid their workers average wage of Kshs 8, 558.20 in comparison with KShs 8,621.83 paid by farms owned by the local capitalists. However, the MNCs farms had better working condition than cut flower farms owned by the local entrepreneurs (Meleseh and Helmsing, 2010). In the MNCS' farm, 67% of the workers had effective PPE in comparison with 40% in farms owned by the local capitalists. Thus, we can conclude that workers in MNCs' farms enjoyed effective PPE and slightly lower monthly wages. In contrast, workers in farms owned by local capitalists had comparatively better wages but relatively poorer working condition. Thus, we can conclude that the type of ownership of the cut flower farm influences the workers welfare.

Certification of cut flower farms makes a difference on workers' welfare. Majority (58%) of workers in the certified farms perceived that their working condition was better in comparison with 29.4% in non-certified farms. Almost a 100% of workers in the certified farms perceived they had effective PPE in comparison with 64% in non-certified farms. Further, almost 100% of workers in certified farms were provided with trainings in health and safety practices in comparison with 62% in non-certified farms. In addition, the certified farms had better wages than non-certified farms. Therefore, we can conclude

that cut flower farms that are certified performed better in enhancing workers' welfare than non-certified farms.

6.4 Recommendations

The study makes a few recommendations that can be addressed in the cut flower industry to enhance workers' welfare. First, the study established that the workers' average monthly wage for unskilled workers in cut flower industry is Kshs. 8,600. The range of real living wage is Kshs. 18, 000 - Kshs. 21, 545 as reported by Riddselius (2011), Gardman (2008) and WWW (2013). The government legislated wage for the unskilled labour in the cut flower industry is Kshs. 5,436.90. Therefore the state should narrow the gap between the minimum wage and the living wage of the unskilled workers in the agricultural sector which houses the cut flower workers by raising their legislated minimum wage. At a personal level, the workers could also be encouraged to engage in income generating activities outside the flower farms.

Second, the legislated government wage is used as the basis of CBA negotiation for workers. Thus, the state should harmonize the minimum wage of workers which exists in the agricultural and general sector to curb the disparity encountered by workers' wage.

Third, this study establishes that certification of a cut flower farm matters in improvement of workers' welfare in the cut flower industry. Thus, the market oriented agencies should make certification of all cut flower farms mandatory before allowing them to access the cut flower market. This also calls for the government to legislate appropriate policies related to certification of cut flower farms. In addition, the market oriented agencies need to work closely with the government to bring forth proper legislation policy on certification.

Fourth, the study's findings establish that at least 10% of workers in the cut flower industry were paid lower wages than the legislated government minimum wage (Kshs. 5,436.90) for 2015. In addition, the study found that 15.4% of workers reported that their working condition in the cut flower farms was at least poor. Therefore, the state should play its oversight role to ensure that labour policies are adhered to. In addition, the trade

union should intervene when appropriate to ensure adherence of the laid down labour policies by the government in the cut flower farms.

Fifth, there is a high job turnover rate in the cut flower industry despite increased number of employees recruited on permanent terms of employment. Most workers hop out of employment after 3-4 years. Yet, these are the more educated workers to whom further training has been provided by the cut flower farms. Reasons for high rate of job turnover should be established and acted upon.

Six, the expected central role of the non-state actors especially trade union, in safeguarding the interests of workers in the cut flower industry is virtually non-existent. Sadly, in some instances the trade union impacts negatively on the workers welfare. Consequently, the role of the trade union in the cut flower industry should be reviewed with a view to make it more protective and proactive. This will involve restructuring of the trade union to make it more inclusive of other stakeholders in the industry like the certification agencies and CSOs which was a recommendation by Doalan, *et. al*., (2002). This may probably make their voice much stronger and more effective.

Seven, the state should actively encourage local ownership on eventual share of the cut flower industry. Local capitalists have been shown to offer better wages than MNCs. It is only in the provision of the working conditions, health services and training where MNCs are doing better than local capitalists. These are areas on which the state can partner with local owners of the cut flower farms to enhance the workers' welfare.

6.5 Contribution of this study to knowledge

This study makes important contributions to knowledge in various ways on the workers' welfare in the cut flower industry in Kenya. First, Sociology is a wide discipline whose subject matter deals with key social institutions in the society such as the family, religion, education, political and economy. As a major institution of the society, economy influences all the other institutions. The study is situated within the realm of economy, work and society. Industrial labour relation is an important branch of sociology which is

often relegated to the periphery, yet it is fundamental to our understanding of important matters in the socio-economic sphere.

Second, at macro-policy level, the welfare products of workers which include wages and working conditions are not informed satisfactorily by the existing policies despite the Kenyan Constitution entitling workers to fair wages and working conditions. Thus, the study has demonstrated the need to narrow the gap between the computed minimum wage and the legislated wage for workers in agricultural sector vis-à-vis cut flower industry.

Third, at the micro-policy level, the study provides an important contribution to the role of trade unionism as part of the non-state actors (trade union) in cut flower industry. Trade unionism is a key contributor to workers' welfare. Yet, their presence has been found to impact negatively on workers' welfare. The study therefore, highlights the need trade unions in the country to be reoriented to effectively serve the workers' welfare in the country.

Fourth, the study has also contributed to knowledge by demonstrating that classical theories like Marxist theory are still relevant in our understanding of contemporary sociological issues affecting society. The study has adopted the Marxist theory to explain conflict relations between proletariat and bourgeoisie in pursuit of incompatible interests in the cut flower industry. Due to the conflict which emanate from the incompatible interests of workers and the owners of the cut flower farms, the situation doesn't lead to revolt but other options are put on place by Exit, Voice and Loyalty theory. Thus, to overcome the limitation emanating from this theory, the study has blended it with Social exchange theory and Exit, Voice and Loyalty theory. The social exchange theory explains the rational seeking behaviour to maximize material benefits in free and competitive market. On the other hand, the Exit, Voice and Loyalty theory explains behaviour change of workers based the existing social situation. This study demonstrates how scholars can blend both classical and contemporary theories to inform social reality.

Finally, with regard to methodology, probit model was considered to be an appropriate technique for analysing the workers, welfare. Thus, the impact of the interaction of various determinants on workers' welfare gives the probabilistic results which lay basis for designing and implementing policies to improve workers' wellbeing. Previous discourses in this area of study have not taken such interactions into account.

6.6 Areas of Further Research

This study identifies three areas for further research, based on the study's findings. First, this study focused on the influence of the owners of the cut flower farms on workers' welfare. The study, however, did not focus on the profits and losses made by the MNCs and local capitalists vis-à-vis what they paid their workers as wages. Therefore, further study could be done to establish whether or not workers are compensated as per their production in the cut flower farms.

Second, the study established that 81% of the workers did not engage in other activities to supplement their wages, which were below the living wage. Therefore, there is need for further study to establish the coping mechanisms laid down by workers in the cut flower industry to supplement their budgets and how these mechanisms have affected their social life. Finally, this study has revealed that certification of the cut flower farm has an impact on the workers' welfare in the cut flower industry. However, further study needs to be carried out to establish the extent to which the certification agencies in the cut flower industry ensure the adherence to standard codes by balancing the interests of the workers, producers, and the consumers.

REFERENCES

Abraham, F. (1982). *Modern sociological theory: An introduction.* Delhi: Oxford University Press.

Acemoglu, D. & Robinson, J. (2015). "The rise and decline of general laws of capitalism." *Journal of Economic Perspective. 29(1) 3–28.*

Acemoglu, D. & Robinson, J. (2015). "The rise and decline of general laws of capitalism." *The Journal of Economic Perspectives, 29*(1), 3-28.

Alli, B. (2008). *Fundamental principles of occupational health and safety.* (2nd Ed) Geneva: International Labour Organization.

Allison, P. (1999). "Comparing logit and probit coefficients across groups." *Sociological methods & research, 28*(2), 186-208.

Anderson Theodore. (2003). *An introduction to Multivariate Statistical Analysis.* 3rd edition. New Jersey: John Wiley and sons, INC.

Andrees, B. and Belser, P. (2009). *Forced labour: Coercion and exploitation in the private economy.* Atlas Economic Research Foundation. London: Lynne Rienner Publishers.

Aneshensel, C. (ed.) (2002). "Elaborating an explanation: antecedent, intervening, and consequent variables." In (Aneshensel, C. (ed.)) *Theory-based data analysis for the social sciences* (155-190) Thousand Oaks*:* SAGE Publications, Inc.

Anker, R. & Anker, M. (2014). "Living Wage for Kenya with Focus on Fresh Flower Farm area near Lake Naivasha." *Report prepared for Fairtrade International, Sustainable Agriculture Network/Rainforest Alliance and UTZ Certified.*

Babbie, E. (2010). *The practice of social research.* 12th edition. USA: Wadsworth Centage Learning.

Balladares, E.; Mera, C. & Fagan, J. (2014). "A view at the effects of the Cut Flower Industry in Colombia and Ecuador and an effort to create awareness of the negative impacts to its consumers*." SEBS Rutgers University.*

Barrett, H.; Ilbery, B.; Browne, A. & Binns, J. (1999). "Globalization and the Changing Networks of Food Supply: The Importation of Fresh Horticultural Produce from Kenya." *Transactions of the Institute of British Geographers, New Series, 24 (2),* 159-174.

Barrientos, S. (2014). "Gender and global value chains: Challenges of economic and social upgrading in agri-food". *Robert Schuman Centre for Advanced Studies Research Paper.* Global Governance Programme - 130. Domenico di Fiesole (FI) Italy: EUI Working Paper RSCAS 2014/96

Bender, K. & Sloane, P. J. (1998). Job satisfaction, trade unions, and exit-voice revisited. *ILR Review*, *51*(2), 222-240.

Beyene, T. (2014). *Socio-Economic Opportunities and Implications of Cut flower Industries in Ethiopia: The Case of Flower Farms in the Rift Valley and Sebeta*. Master Thesis 2014. Department for International Environment and Development Studies, Noragric

Bhatta, B. (2010). *Analysis of urban growth and sprawl from remote sensing data*. London: Springer.

Bishop, J. (2000). *Ethics and capitalism.* London: University of Toronto Press.

Blau, G. (1985). "The measurement and prediction of career commitment." *Journal of Occupational and Organizational Psychology, 58*(4), 277-288.

Böhm K.; Smidt, E & Tintner, J. (2013). "Application of Multivariate Data Analyses in Waste Management." *Multivariate Analysis in Management, Engineering and the Sciences.* Leandro Freitas (ed.), ISBN: 978-953-51-0921-1, InTech, DOI: 10.5772/53975.

Bolo M. (2006). *Knowledge, technology and growth: the case of Lake Naivasha cut-flower cluster in Kenya.* WBI Africa Cluster Case Study. World Bank Institute. Washington, D.C.: World Bank.

Boltanski, L. & Chiapello, E. (2005). "The New Spirit of Capitalism." *International Journal of Politics, Culture, and Society*. 18(3/4), 161-188.

Bonarriva, J. (2003). "Industry and Trade summary cut flowers." *USITC Publication 3580.*

Brown, D.; Deardorff, A. & Stern, R. (2003). *The effects of multinational production on wages and working conditions in developing countries* (National Bureau of Economic Research Working Paper 9669). Cambridge, MA: National Bureau of Economic Research.

Brown D.; Deardoff, A. & Stern, R. (2004). "The Effects of Multinational Production on Wages and Working Conditions in Developing Countries." in Baldwin,R. & Winters, L. (eds.) *Challenges to globalization: Analyzing the economics* (279-330). Chicago: University of Chicago Press.

Bruner M. (2002). "Taming 'wild' capitalism*." Discourse & Society, 13(2),* 167-184.

Bryman A. (2008). *The sage handbook of social research methods*. London: Sage Publications Ltd.

Burns, E. (1966). *An introduction to Marxism*. New York: International Publishers.

Buttolph, J.; Joslyn, R. & Reynolds, H. (2012). *Political science research methods.* (7th edition) Washington D.C: CQ Press

Caestecker N. (2012). *The impact of Fairtrade on social upgrading in the cut-flower industry in Kenya.* MA thesis. University of Gent.

Chalwa1, C.; Sakataka, W. & Oteki, E. (2016). "Factors Affecting Performance of Cut Flower Firms in Kenya: A Case of Maji Mazuri Flowers Ltd, Uasin Gishu County." *International Journal of Recent Research in Commerce Economics and Management* (IJRRCEM), 3(2).

Chege, J. (2012). "Value addition in coffee industry in Kenya: Lessons from cut flower sector." Kenya Institute for Public Policy Research and Analysis (KIPPRA), Nairobi, Kenya ICBE-RF Research Report No. 21, 12.

Chesang, R. (2013). "Exit, Voice, Loyalty Theory: It's Implications for household and National Level Dynamics in Kenya*." International Journal of scientific and technology research.* 2(6). ISSN 2277-8616 115 IJSTR©2013.

Cliff, T. (2000). *Marxism at the Millennium*. London: Bookmarks Publications.

Cohen J.; Cohen, P.; West, S.; & Aiken, L. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge.

Cohen, J.; Cohen, P.; West, S. &Aiken, L. (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioural Sciences* (3rd edition). New Jersey: Lawrence Erlbaum Associates, Publishers

Cole, G. (2002). *Personnel and human resource management.* (5th edition). London: South-Western Cengage Learning.

Colony and Protectorate of Kenya. (1950). *The Official Gazette of Colony And Protectorate of Kenya.* LII-32. Nairobi, Kenya.

Colony and Protectorate of Kenya (1960). *Official verbatim report of the debates of the First session (Resumed) of the Eleventh Legislative Council.* Kenya National Assembly Official Record (Hansard) Nov 24, 1959 - Feb 3, 1960. Nairobi: Government Printing Press.

Colony and Protectorate of Kenya (1962). *African land development in Kenya.* The ministry of Agriculture, Animal husbandry and water resources. Nairobi.

Cook, K. & Rice, E. (2003). *Handbook of Social Psychology.* New York: Kluwer Academic/Plenum Publishers.

Cooper, D.; Schindler, P. & Sharma, J (2012). *Business research methods.* (11th edition). New Delhi: Tata McGraw Hill Education Private Limited.

Cranford, C. (2005). "Networks of Exploitation: Immigrant Labor and the Restructuring of the Los Angeles." *Janitorial Industry Social Problems* 52(3), 379-397.

Davies, R. (2000). *The impact of globalization on local communities: A case study of the cut-flower industry in Zimbabwe.* ILO/SAMAT Discussion Paper No. 13. Geneva: International Labour Organization.

Dolan, C.; Opondo, M. & Smith, S. (2002). "Gender, Rights and participation in Kenya cut flower industry." NRI report No: 2768. SSR Project No. R8077 2002-4. Natural Resource Institute.

Dolan, C. & Opondo, M. (2005). "Seeking Common Ground: Multi-stakeholder Processes in Kenya's Cut Flower Industry." *Journal of Corporate Citizenship, 2005*(18), 87-98.

Dolan, C. & Sutherland, K. (2003). "Gender and employment in the Kenya horticulture value chain." *Globalisation and Poverty Discussion Paper, 8.*

Dolan, C. (2005). "Fields of Obligation: Rooting ethical sourcing in Kenyan horticulture." *Journal of Consumer Culture. 5*(3), 365-389.

Dolan, C. (2005a). "Benevolent Intent? The development encounter in Kenya's horticulture industry." *Journal of Asian and African Studies.* 40(6): 411–437.

Dolan, C (2008): "Arbitrating Risk Through Moral Values: The Case of Kenya Fairtrade" in g De Neveet al (éd.), *Hidden Hands in the Market: Ethno-graphies of Fair Trade, Ethical Consumption and Corporate Social Responsibility*, Research in Economic Anthropology, 28: 271-279

Dolan, C.; Opondo, M. & Smith, (2003). *"*Gender, Rights and participation in Kenya cut flower industry." Natural Resource Institute report No: 2768. SSR Project No. R8077 2002-4.

Edward, Z. & Saviour, R. (2002). "The perceptions of trade unions by their members: A survey report on trade unions in Malta." *Employee Relations*, 24 (1) 53-68.

Elster, J. (1978). "Exploring Exploitation." *Journal of Peace Research*. 15(1) 3-17.

Emerson, R. (1976). "Social Exchange Theory." *Annual Review of Sociology*, 2. 335-362.

Marx, K. (1977). *Marx, Karl, 1818-1883. - Economic and philosophic manuscripts of 1844*. (5th edition). Moscow: Progress Publishers.

English, P. (2004). *Exporting Out of Africa-Kenya's Horticulture Success Story.*Washington D.C: World Bank.

English, R. (2007). *Promoting women workers' rights in African horticulture. Overview of research into conditions on horticulture farms in Kenya, Zambia, Tanzania and Uganda.* Manchester: Women Working Worldwide.

Esposito, V., Chin, W. W., Henseler, J., & Wang, H. (2016). "Flowers for food?: Scoping study on Dutch flower farms, land governance and local food security in Eastern Africa." *Food and Business Knowledge Platform (F&BKP) and LANDac*. Utrecht University Repository.

Ethical Trading Initiative (ETI) (2005). *Addressing labour practices on Kenyan flower farms. Report of ETI involvement 2002-2004.* London: Ethical Trading Initiative.

Evers, B., Amoding, F. & Krishnana, A. (2014). "Social and economic upgrading in floriculture global value chains: flowers and cuttings GVCs in Uganda*." Working Paper 42. Journal on economic and social upgrading in global production networks.*

Fairtrade international. (2016). *Scope and benefits of fairtrade* (7th edition). Bonn: Fairtrade international.

Farganis, J. (2014). *Readings in social theory. The classic tradition to post modernism* (7th edition). New York: McGraw Hill Companies, Inc.

Farrell, D. (1983). "Exit, Voice, Loyalty, and neglect as responses to job dissatisfaction: A multidimensional scaling study." *Academy of Management Journal 1983. 26(4) 596-607.*

Fashoyin, T. (2010). *Collective Bargaining and Employment Relations in Kenya.* Working Paper No. 13. Geneva: International Labour Office.

Fisher, J. (1998). *Non-governments: NGOs and the political development of the Third World.* Hartford: Kumarian Press, Inc.

Freeman, E. Martin, K. & Parmar, B. (2007). "Stakeholder Capitalism." *Journal of Business Ethics, 74(4)* 303-314.

Fuchs, C., & Mosco, V. (2012). "Introduction: Marx is back–the importance of Marxist theory and research for critical communication studies today." *tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society*. *10*(2), 127-140.

Gatari, M., & Boman, J. (2003). "Black carbon and total carbon measurements at urban and rural sites in Kenya, East Africa." *Atmospheric Environment*, *37*(8), 1149-1154.

Gårdman, K. (2008). "Fairtrade and Human Rights in the Kenyan Cut Flower Industry." Lund's University.

Gårdman, K. (2009). "Fairtrade and Human Rights in the Kenyan Cut Flower Industry." Lund's University.

Gerstenberger, H. (2011). "The historical constitution of the political forms of capitalism." *Antipode*, *43*(1), 60-86.

Ghani, A. & Lockhart, C. (2008). *Fixing failed states. A framework for rebuilding a fractured world.* New York: Oxford University Press.

Gibbon, P. & Riisgaard, L. (2014). "A New System of Labour Management in African Large-Scale Agriculture?" *Journal of Agrarian Change, 14: 94–128*

Giddens, A. (1973). *The class structure of the advanced society.* London: Hutchinson University Library.

Giuliani, E. & Macchi, C. (2013). "Multinational corporations' economic and human rights impacts on developing countries: a review and research agenda." Discussion Papers del Dipartimento di Economia e Management Università di Pisa, No. 158

Gmelch, G. & Zenner, W. (1996). *Urban life: Readings in urban anthropology*. (3rd edition). Illinois: Waveland Press, Inc.

Gow, J. & Parton, K. (1992). *The evolution of Kenyan agricultural policy. Paper presented to the Australian Agricultural Economics Society conference.* Department of Agricultural Economics and Business management. London: University of New England.

Grotenhuis, M. &Thijs, P. (2015). Dummy variables and their interactions in regression analysis: examples from research on body mass index. *Research gate.*

Gudeta, D. (2012). *Socio-economic and Environmental Impact of Floriculture Industry in Ethiopia*. Berlin: Hum-boldt University.

Gupta, S. (1969). *Statistical Methods.* New Delhi: Sultan Chand & Sons Educational Publishers.

Haralambos, M. & Holborn, M. (2008). *Sociology: Themes and Perspectives.* London: Collins Education.

Hirschman, A. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states* (Vol. 25). London: Harvard university press.

Hock, J. (1992). "The role of trade unions in national development." A collection of seminar papers from Tripartite Forum held on 13/9/1992 at Hilton hotel. Malysian Trades Union Congress. KUCHING, SARAWAK (Ph.D dissertation)

Hoffman, J. (1975). *Marxism and the theory of praxis. A critique of some new versions of old fallacies.* London: Lawrence and Wishart.

Horticultural Crops Development Authority (HCDA) (2013). *Role of Horticultural Crops Development Authority And horticulture sector performance report*. Nairobi: Government Printer.

Harper, W.(1991). *Statistics*. (6th edition). London: Longman Group UK Limited.

Hulst, R. (2012). "Sustainability in floriculture. Are there any differences between sustainable measures applied to Dutch and Kenyan floriculture and what are the effects of these measures on costs?" (BSc Thesis). Management Studies. Wageningen University, Wageningen, the Netherlands.

Hutter, B. & D'maheny, J. (2004). "The role of civil society organizations is regulating business." Discussion paper No. 26. ESRC centre for analysis of risk and regulation. London school of economics and political science.

Hughes, A. (2001). "Global commodity Networks, Ethical Trade and Governmentality, Organizing Business responsibility in the Kenyan cut flower industry." *Transactions of the institute of British Geographers, New Series,* 26, (4) 390 -406.

Hyman, R. (2001). *Understanding European trade unionism: Between market, class and society.* London: Sage Publications.

Ingham, G. (2013). *Capitalism: With a New Postscript on the Financial Crisis and Its Aftermath.*USA: Polity Press. John Wiley & Sons.

International Federation for Human Rights (Fidh) (2008). "Economic development or human rights? Assessing the impact of Kenya's trade and investment policies and agreements on human rights." Centre for Research on Multinational Corporations (SOMO).

International Labour Law (ILO) (2003). *National Labour Law Profile: Kenya.* Geneva International labour organization.

International Labour Organization (2007). *Sectoral activities programmes (TMFCE /:11) notes on the proceedings. Tripartite meetings to examine the impact of global food chains on employment.* Geneva: International Labour Organization.

International Labour Organization (ILO) (2012). *Empowering rural workers, employers and communities through International Labour Standards.* Geneva. International Labour Organization.

Jaeger, P. (2010). "Smallholders: how to involve small-scale farmers in commercial horticulture." In 6th video seminar in the series High Value Agriculture in Southern and Eastern Africa. Accord Associates LLP.

James, F. (2004*). Capitalism: A very short introduction.* Oxford: Oxford University Press.

Jobson John (1991). *Applied Multivariate Data Analysis: Regression and Experimental Design.* Vol. 1. New York: Springer Science Business Media.

Kane-Urrabazo, C. (2006). "Management's role in shaping organizational culture." *Journal of Nursing Management,* 14, 188–194.

Karlson, K.; Holm, A. & Breen, R. (2012). "Comparing regression coefficients between same-sample nested models using logit and probit: A new method." *Sociological Methodology, 42*(1), 286-313.

Kelso, L. & Adler, M. (2000). *The Capitalist Manifesto* New York: Greenwood Press.

Kenya Flower Council (KFC). (2015). *Floriculture in Kenya.* Nairobi: Kenya Flower Industry.

Kenya Flower Council (KFC). (2012). *Flower industry in Kenya.* Nairobi: Kenya Flower Council.

Kenya Human Rights Commission (KHRC). (2012). *Wilting in Bloom: The Irony of Women Labour Rights in the Cut Flower Sector in Kenya.* Nairobi: KHRC.

Kenya National Bureau of Statistics (2015). *Economic survey 2015*. Government Printer. Nairobi.

Kirigia, E.; Betsema, G.; Westen G. & Zoomers, A. (2016). "Flowers for food? Scoping study on Dutch flower farms, land governance and local food security in Eastern Africa." LANDac /IDS, Utrecht University. The Netherlands Academy on Land Governance for Equitable and Sustainable Development.

Kombo, D. & Tromp D. (2006*). Proposal and Thesis writing: An introduction.* Nairobi: Paulines Publications Africa.

Korovkin, T. & Sanmiguel-Valderrama, O. (2007). "Labour standards, global markets and non-state initiatives: Colombia's and Ecuador's flower industries in comparative perspective*." Third World Quarterly*. 28(1), 117-135.

Kosonen, P. (1977). "Contemporary Capitalism and the Critique of Political Economy: Methodological Aspects." *Acta Sociologica.* 20(4), 369-384.

Kothari, C. (2004). *Research Methodology: Methods and Techniques.* New Delhi: New Age International (P) Publishers.

Laibuni, N.; Waiyaki, N.; Ndirangu, L. & Omiti, J. (2012). "Kenyan cut-flower and foliage exports: A cross country analysis." *Journal of Development and Agricultural Economics.* 4(2), 37-44.

Larsen, N.; Nilges, M.; Robinson, J. & Brown, N.(eds.) (2014). *Marxism and the Critique of Value.* Chicago: MCM Books.

Leipold, B. & Morgante, F. (2013). "The Impact of the Flower Industry on Kenya's Sustainable Development." IPPR 2012/2013. *International Public Policy Review.*7 (2).

Liu, J.; Sakamoto, A. & Su, K. (2005). "Exploitation in Contemporary Capitalism: Some Empirical Evidence for Taiwan." Paper presented at the annual meeting of the American Sociological Association, Marriott Hotel, Loews Philadelphia Hotel, Philadelphia, PA Online 2010-16-08.

Lund-Thomsen, P. (2013). *Assessing the Effects of Corporate Social Responsibility Standards in Global Value Chains: Reflections on the "Dark Side" of Impact Assessment.* CBS Working Paper Series, Working Paper No. 2 2013. Denmark: CBS Centre for Corporate Social Responsibility.

Mano, Y.; Yamano, T.; Suzuki, A. & Matsumoto, T. (2011). "Local and personal networks in employment and the development of labor markets: Evidence from the cut flower industry in Ethiopia." *World Development, 39(1*0), 1760–1770.

Martins, P. (2004). "Do foreign firms really pay higher wages? Evidence from different estimators. Institute for the Study of Labour." IZA Discussion Paper 1388, Bonn.

Matanga, F. (2000). "The third sector: For what and for whom?" *Fourth international conference of ISTR*, Trinity College. Vol. 2.

Matsumoto, T.; Mano, Y. & Suzuki, A. (2012). "Summary report on 2011/2012 small scale flower producers' survey." *National Graduate Institute for Policy Studies (GRIPS)*

Marx, K.; & Engels, F. (1972). *The german ideology* (Vol. 1). New York: International Publishers Co.

Marx, K., & Engels, F. (1969). *Wage-labour and capital.* New York: International publishers.

McDermott, J. (1997). "Exploitation and Growth." *Journal of Economic Growth.* 2(3), 251-278.

Meleseh, A. & Helmsing, B. (2010). "Endogenisation or enclave formation? The development of the Ethiopian cut flower industry". *Journal of Modern African Studies,* 48(1), 35–66.

Migdal, J. (1988). *Strong societies and weak states. State-society and state capabilities in the Third World.* New Jersey: Princeton University Press.

Miller, C. (2012). "Fresh Cut Flowers and Exploitation." *Perspectives on Global Development and Technology, 11(1), 88-98.*

Mlynska, A.; Wass, G. & Amoding F. (2015). "Thorns amongst the roses. A cross-country analysis of human rights issues." IPIS Publication.

Muhammad, A.; Amponsah, W. A. & Dennis, J. (2010). The impact of preferential trade arrangements on EU imports from developing countries: The case of fresh cut flowers. *Applied Economic Perspectives and Policy*, *32*(2), 254-274.

Moore, G. (2010). "Fairness in International Trade." *The International Society of Business, Economics, and Ethics Book Series 1*.

Morse, J. & Chung, S. (2003). Toward holism: The significance of methodological pluralism. *International Journal of Qualitative Methods.* 2 (3), 13-20.

Muller, J. (2013). "Capitalism and Inequality." *Foreign Affairs.* 92 (2), 30-51

Muthoka, N. (2008). *A cross country analysis of cut flower and foliage exports: The case of Kenya.* Discussion paper series (DP/96/2008). Nairobi: Kenya Institute for Public Policy Research and Analysis.

Mwangi, T.; Simiyu, F. & Onderi, A. (2017). "The effects of minimum wages on the labour market, migration and income distribution in Kenya; A CGE analysis." Working paper 2017-21. Partnership for Economic Policy (PEP).

Nachmias, C. & Nachmias, D. (1996*). Research methods in the social sciences.* London: Arnold.

NAPE (2012). "The impacts of the flower industry on environment and peoples livelihoods in Uganda the impacts of the flower industry on environment and peoples livelihoods in Uganda." A study conducted by NAPE with financial support from the Swedish Society for Nature Conservation (SSNC).

Nelson, V.; Martin, A.; & Ewert, J. (2007). "The Impacts of Codes of Practice on Worker Livelihoods: Emperical Evidence from the South African Wine and Kenyan Cut Flower Industries." *Journal of corporate Citizenship.* 28(winter 2001), 61- 72.

Njagi, D. (June 10, 2013). "Kenya's Flower Farms No Bed of Roses." Inter Press Service (IPS).

Njeru, A. (2011). *A rapid assessment of domestic workers in Kenya*. Nairobi: Friedrich Ebert Foundation.

Nowakowska, M. (2015). "Safety of Supply Chain of Kenya's Cut Flower Industry. Case of Kongoni River Farm." *Logistics & Transport, 26(2), 43-48.*

Nunnally, J. (1978). *Psychometric Theory.* Chicago: McGraw-Hill Book Company.

Obo, U. & Coker, M. (2013). "The State, Surplus Value, and Exploitation in Contemporary Capitalism." *IOSR Journal of Humanities and Social Science* (IOSR-JHSS) 13(2), 38-43.

Odhong', A. & Omolo, J. (2014). "An analysis of the factors affecting employee relations in the flower industry in Kenya: A case of Waridi Ltd, Athi River." *International Journal of Business and Social Science.* 5(11), 147-160.

Ollman, B. (1976). *Alienation: Marx's conception of man in capitalist society. (*2nd edition). USA: Cambridge University Press.

Omosa, M.; Kiman,i M. & Njiru, R. (2006). "The Social Impact of Codes of Practice in the Cut Flower Industry in Kenya." In Bomann-Larsen & Wiggen, O. (eds). "*Responsibility in world business: Managing harmful side effects of corporate activity."* Tokyo: UN University Press.

Opondo, M. & Hale, A. (2005*). "*Confronting the realities of flower production for workers in Kenya." *A Radicle Journal of Geography.* 37(2), 301–323.

Opondo, M. (2002). "Trade Policy in the Cut Flower Industry in Kenya." in Smith, K. (ed) *Ethical trade, Gender and sustainable Livelihoods: Women smallholders and ethnicity in Kenya.*New York: Routledge.

Opondo, M. (2006). "Emerging Corporate Social Responsibility in Kenya's Cut Flower Industry." Nairobi: University of Nairobi Press.

Oxfam (2013). "What's the poverty 'footprint' of cut flowers: Between international business and poverty reduction bouquets and beans from Kenya." Oxfam and International Procurement and Logistics Ltd.

Pages, C. & Andalon, M. (2008). "Minimum wages in Kenya." IZA Discussion paper No. 3390. Institute for the study of labour: Bonn, Germany.

Palmer, T. (ed.) (2011). *The Morality of Capitalism. What Your Professors. Won't Tell You.* Illinois: Jameson Books, Inc.

Perry, B. (2012). "The structure and dynamics of cut flower export markets from Kenya and Ethiopia, with particular reference to trade to Norway." Nupi Working Paper, *997, 1–26.*

Pines, G. & Meyer, D. (2005). "Stopping the exploitation of workers: An analysis of the effective application of consumer or socio-political pressure." *Journal of Business ethics.* 59(1/2), 155-162.

Plucking, S. Malawi, I.; Kenya, F.; Vietnam, P. & Myanmar, G. (2015). "In work but trapped in poverty." OXFAM.

Popper, K. (1966). *The open society and its enemies. The high tide of prophecy: Hegel, Marx and the aftermath.* London: Routledge and Kegan Paul.

Potjer, B., Bergman, E., Michel, S. & Bani, M. (2015). "Creating shared value in the rose supply chain. Exploring the business case for living wage rose." True Price.

Ragin, C. (1987). *The comparative method: Moving beyond qualitative and quantitative strategies.* Berkeley: University of California Press.

Raynolds, L. (2012). "Fair Trade Flowers: Global certification, environmental sustainability, and labor standards". *Rural Sociology*, 77(4), 493-519.

Republic of Kenya (RoK). (2007). *The Occupational Safety and Health Act 2007*. Nairobi: Government Printer.

Republic of Kenya (RoK). (2009). *District Development plan. Nakuru District.* Nairobi: Government Printer.

Republic of Kenya (RoK). (2012a). *Laws of Kenya. Employment Act. Chapter 226.* Nairobi: government Printing Press.

Republic of Kenya (RoK). (2012). *National Horticulture Policy.* Nairobi: Government Printer.

Republic of Kenya (RoK). (2012b). *Employment Act CAP 226 and CAP 229.* Nairobi: Government Printer.

Republic of Kenya (RoK). (2013). *Ministry of Labour Strategic plan* 2013-2017. Nairobi: Government Printer.

Republic of Kenya (RoK). (2015). *Regulation of wages (General amendment) order 2015.* Kenya Gazette Supplement No.91. 26th June, 20l5. (Legislative Supplement No.38). Nairobi: Government Printer.

Republic of Kenya (RoK) (2017). *Legal Notice: The regulation of wages (Agricultural industry) Amendment) order 2017.* Nairobi: Government Printer.

Resnick, S. & Wolff, R. (2003). "Exploitation, Consumption, and the Uniqueness of US Capitalism." *Historical Materialism* 11(4), 209-226.

Riddselius, C. (2011). "Certification process of international standards in the Kenyan cut flower industry." (Master's Thesis). Department of Human Geography, Stockholm University.

Riisgaard, L. & Gibbon, P. (2014). "Labour management on contemporary Kenyan cut flower farms: foundations of an industrial–civic compromise." *Journal of Agrarian Change*, *14*(2), 260-285

Riisgaard, L. (2007). "What's in it for labour? Private social standards in the cut flower industries of Kenya and Tanzania." *DIIS Working Paper* (No. 2007: 16).

Riisgaard, L. (2009)." Labour agency and private social standards in the cut flower industry." Roskilde Universitet.

Riisgaard, L. (2011) "Towards more stringent sustainability standards? Trends in the cut flower industry." *Review of African Political Economy*, *38*(129), 435-453.

Rikken, M. (2011). "The global competitiveness of the Kenyan flower industry." Technical Paper. Prepared for the Fifth Video conference on the Global Competitiveness of the Flower Industry in Eastern Africa. Nairobi: Kenya Flower Council.

Rikken, M. (2012). "Kenya Flower Industry Global Competiveness Report." Nairobi: Kenya Flower Council.

Ritzer, G. (2000). *Classical sociological theory*. New York: McGraw-Hill companies, Inc.

Robbins, R. (2008). *Global Problems and the Culture of Capitalism*. New York: Pearson Education, Inc.

Robinson, S. (2010). "Conceptual modelling: Who needs it."SCS M&S Magazine, *2*, 1-7.

Ronconi, L. (2008). "Enforcement and compliance with labor regulations in Argentina." *ILR Review*, *63*(4), 719-736.

Rudestam, K. & Newton, R. (2001). *Surviving your dissertation* (2nd ed.). London: Sage Publications.

Rueschemeyer, D.; Stephen, E. & Stephens, J. (1992). *Capitalist development and democracy*. Chicago: University of Chicago Press.

Saad-Filho, A. (2002). *The value of Marx: Political economy for contemporary capitalism*. London: Routledge.

Samuel, M. & Okey, L. (2015). "The relevance and significance of correlation in social science research. *International Journal of Sociology and Anthropology Research.* 1(3), 22-28.

Scott, B. (2006)."The political economy of Capitalism." HBS Working Paper Number: 07-037 Division of Research, Harvard Business School.

Screpanti, E. (1999). "Capitalist forms and the essence of capitalism*." Review of International Political Economy, 6* (1), 1-26

Sekaran U. & and Bougie, R. (2016). *Research methods for business: A skill building approach*. Illinois: John Wiley & Sons.

Singleton, A. (Jr.); Strait, C.; Strait, M. & McAllister, R. (1988). *Approaches to social research*. New York: Oxford University Press.

Smith, S.; Auret, D.; Barrentos, S.; Dolan, C.; Kleinbooi, K.; Njobvu, C.; Opondo, M., & Tallontire, A. (2004). "Ethical Trade in African horticulture: Gender, Rights and participation." IDS Working Paper 223. Institute of Development Studies. University of Sussex.

Staelens, L.; Louche, C. & Haese, M. (2014). "Understanding job satisfaction in a labor intensive sector: Empirical evidence from the Ethiopian cut flower industry." Paper prepared for presentation at the EAAE 2014 Congress. Agri-food and rural innovations for healthier societies', 26-29 August 2014

Streeck, W. (2014). "How will capitalism end?" *New Left Review*, (87), 35-64.

Sutherland, J. (2003). "The experience of work: Is working for an overseas-owned multinational so different?" *Employee Relations.* 25(2), 149 – 167.

Swainson, N. (1977). "The Rise of a National Bourgeoisie in Kenya." *Review of African Political Economy.* 4(8), 39-55.

Swaynnerton, R (1954). *A plan to intensify the development of African Agriculture in Kenya.* Nairobi.

Talcott, M. (2004). "Gendered Webs of Development and Resistance: Women, Children, and Flowers in Bogotá." *Signs. 29(2), 465-489.*

Tallontire, A.; Dolan, C.; Smith, S. & Barrientos, S. (2005). "Reaching the marginalized? Gender value chains and ethical trade in African horticulture." *Development in Practice 15(3/4): 559–571*.

Tarrow, S. (1994). *Power in movements. Social movements, collective action and politics.* New York: Cambridge University Press.

Tierney, R. (2008). "Inter-ethnic and labour-community coalitions in class struggle in Taiwan since the advent of temporary immigration." *Journal of Organizational Change Management,* 21(4), 482 – 496.

Tijdens, K. & Wambugu, A. (2012) "Wages in Kenya:Wage indicator survey 2012." Amsterdams Institute Voor Arbeids studies (AIAS).

Trochim, W. (2006). *Research methods knowledge base.*(2nd edition) Cincinnati: Atomic Dog Publishing.

Ulrich, A. (2014). "Export-oriented horticultural production in laikipia, kenya: Assessing the implications for rural livelihoods." *Sustainability, 6(1*), 336-347.

UN-Habitat (2015). *UN-Habitat Support to Sustainable Urban Development in Kenya. Report on capacity for County Governments under the Kenya Municipal Programme. Vol. 1: Embu, Kiambu, Machakos, Nakuru, Nyeri.* Nairobi: United Nations Humans Settlements Programme.

United Nations Development (UNDP). (2017). *Human Development Index (HDI) report 2017: Human Development for Everyone*. New York: United Nations Development Programme.

Ute, S. (2013). "Trade, Liberalisation, Labor Law and Gender: The Protections of Temporary Workers under the Ethiopian Labor Law." Law, Social Justice and Global Development (LGD 2013(1)

Varelie, N. (2011). "Kenya's Cut Flower Tax Swindle." African Business.

Valerie, N.; Adrienne, M. & Joachim, E. (2005). "What Difference Can They Make? Assessing the Social Impact of Corporate Codes of Practice." *Development in Practice, 15(3/4), 539–545.*

Waithaka, M. (2005). *Horticulture industry in Kenya 2005.* Nairobi: Kenya Institute of Public Policy and Research Analysis.

Waldpole. R.; Myers, R.; Myers, S. & Keying, Y. (2012). *Probability and statistics for engineers and scientists.* (9th edition). London: Prentice Hall.

Wambutsi, S. (2014). "*The challenges and opportunities for organising labour in the Kenyan flower industry"* (Doctoral dissertation).

Whitaker, M. & Kolavalli, S. (2006). *Floriculture in Kenya.* Washington DC: International Food Policy Research Institute (IFPRI).

Whitford, A. & Lee, S. (2014). "Exit, voice, and loyalty with multiple exit options: Evidence from the US federal workforce." *Journal of Public Administration Research and Theory, muu004*.

The World Bank (2016). World Development Indicators (WDI). Washington, DC: The World Bank.

Working Women Worldwide (WWW) (2013)**. "**Achieving a Living Wage for African Flower Workers." *Working Women Worldwide*

APPENDICES

Appendix 1: Number of Cut Flower Workers in Naivasha, Thika and Nanyuki

All correspondence to be addressed to the General Secretary

KENYA PLANTATION & AGRICULTURAL WORKERS' UNION

Affiliated to CENTRAL ORGANIZATION OF TRADE UNIONS (KENYA)

Chairman: PETER ULIRA OTIENO
General Secretary: FRANCIS ATWOLI, NOM (DZA), EBS, MBS
Treasurer: REGINA CHEPKOECH

UNION HEADQUARTERS
P.O. Box 1161-20100
Tel: 051-2212310
Fax: 051-2212310
NAKURU, (Kenya, East Africa)
Email: kpawu@africaonline.co.ke

Your Reference: .....

Our Ref: **KPAWU/GC/48/10/2015**

26th October, 2015

The Chairman,
University of Nairobi
Department of Sociology & Social Work,
P.O. Box 30194
NAIROBI-KENYA

Prof.Charles Nzioka

Dear Sir,

RE: APPLICATION OF DATA ON THE NUMBER OF WORKERS IN THE CUT FLOWER INDUSTRY IN KENYA

Your letter dated 22nd October, 2015 as above subject matter refers.

This is to confirm that Mr. Joseph Githui Kabiru approached us during the development of his thesis work in the cut flower industry obtained necessary support and material relevant to his study in the cut flower industry workers in Naivasha is estimated at 30,000, Thika at 10,000 while at Nanyuki is estimated at 8600 making a variable total of 48600 workers altogether during the time of the study (2015).

We hope that our assistance to Mr. Kabiru will enable him achieve his academic excellence.

Yours faithfully

Thomas Kipkemboi,
For: GENERAL SECRETARY

Vice Chairman: MARGARET W. GATHUMA
Deputy General Secretary: THOMAS KIPKEMBOI
Assistant Treasurer: MOSES CHORIO
Assistant General Secretary: MESHACK KHISA

Appendix 2: Questionnaire

Introduction

My name is Joseph Githui Kabiru from Department of Sociology and Social Work, University of Nairobi. I am conducting a research on labour relations between workers and employers in Kenya's cut flower industry. I intend to collect the required data by interviewing workers in cut flower farms.

You have been selected for interview to provide the required information for this study. The data collected will be used for academic purpose in matters of working environment and workers. I am kindly requesting you to spare some time for an interview that will take less than one hour. The information that you provide will be treated with utmost confidentiality. I will appreciate if you allow me to start the interview.

A. Demographic characteristics of respondents

1. Name (*optional*).....
2. Sex: 1. Male ☐ 2. Female ☐
3. Year of birth: _____ Age: _____
4. County of birth: .....
5. Marital status: 1. Single. ☐ 2. Married ☐ 3. Separated. ☐ 4. Divorced. ☐
   5. Other specify.....
6. Do you have a family? 1. Yes ☐ 2. No ☐
7. If yes, does your family live with you in your place of work? 1. Yes ☐ 2. No ☐
8. What is the size of your family……
9. Ethnic group.....
10. Your highest level of education attained: 1. No formal education ☐ 2. Primary education ☐ 3. Secondary education. ☐ 4. Post-secondary (middle level) education. ☐ 5. College level. ☐ 6. University ☐
11. Place of residence. 1. Own house ☐ 2. Company house ☐ 3.Rented house ☐
12. Have you been trained in any field? 1. Yes ☐ 2. No ☐
13. Which field are you trained on? .....
14. In this farm do you work in the same field you were trained on? 1. Yes ☐ 2. No ☐
15. How long have you worked in this farm? 1. Below one year ☐ 2. One year ☐

3. Other (specify).....

16. What is your current employment status? 1. Permanent ☐ 2. Contract. ☐
    3. Casual. ☐ 5. Other (specify).....
17. How many years have you stayed in that position in this farm?
    .....
18. What is your current occupational status? 1. Worker ☐ 2. Foreman ☐
    3. Supervisor ☐ 4. Senior supervisor ☐ 5. Other (specify).....
19. Workers in this farm are promoted regularly. 1. Strongly agree ☐ 2. Agree ☐
    3. Indifferent ☐ 4. Disagree ☐ 5. Strongly disagree ☐
20. What do you like most in this farm? Explain…….
    ……..
21. What have you achieved through working in this farm……
    ……
22. For how long do you intend to work in this farm? ……..
23. How do you compare yourself to other workers in other farms? 1. Better off ☐
    2. Same ☐ 3.Worse off ☐
24. How do you compare yourself to other workers in Kenya? 1. Better off ☐
    2. Same ☐ 3.Worse off ☐

B. Farm related attributes

25. Name of the farm……
26. Cut flower owner 1. Multinational ☐ 2. Local entrepreneur ☐
27. Region: 1.Nanyuki ☐ 2. Naivasha ☐ 3. Thika ☐
28. Location of the firm. 1. Urban ☐ 2. Rural ☐
29. The status of certification of the cut flower farm by market accreditation agencies
    1. Certified ☐ 2. Non-certified ☐
30. The type of market accreditation agencies 1. Local ☐ 2. International ☐
    3. Both local and international ☐
31. County: 1. Laikipia ☐ 2. Kiambu ☐ 3. Nakuru ☐
32. How many farms does this company have in Kenya…….

33. Where does your flower farm sell its products? 1. Local markets ☐ 2. Regional market (Africa) ☐ 3. International markets ☐ 4. Both regional and international markets ☐
34. Whether a farm is accredited by market accrediting agencies.1. Yes ☐ 2. No ☐
35. What is the status of the accreditation body? 1. Local accreditation agency ☐ 2. International accreditation agency ☐ 3. Both local and international accreditation agency ☐ 4. None ☐
36. Are you provided with housing? Explain ……
……

Remuneration of workers and working conditions

In this section I am going to ask questions regarding the number of hours worked and your current wage. These questions will determine the exchange relations between workers and owners of the farm.

37. How are workers remunerated in this farm? 1. Daily ☐ 2. Weekly ☐ 3. Fortnight ☐ 4. Monthly ☐
38. Are you comfortable with the amount of wages paid in this farm? 1. Yes ☐ 2.No ☐ 3. Indifferent ☐
39. How can you range the current wages in this farm? 1. Very high ☐ 2.High ☐ 3. Moderate ☐ 4. Low ☐ 5. Very low ☐
40. What is your monthly salary/wage (in KSHs) a) Gross Salary……
b) House allowance…….
41. Do you have another income generating activity? 1. Yes ☐ 2. No ☐
42. If yes, how much do you earn in the other income generating activity apart from your regular work (KSHs)? ……
43. If you have another income generating activity apart from your regular job in this farm, when are you engaged in it? ……..
44. Is there conflict between your other income generating activity and your regular job? 1. Yes ☐ 2. No ☐
45. Explain your answer in either case……..……
……

46. To what extent are you satisfied with the current wage? 1. Strongly satisfied ☐
2. Satisfied ☐ 3. Indifferent ☐ 4. Dissatisfied ☐ 5.Strongly Dissatisfied ☐

47. Explain your answer in either case……

……

48. Does the management increase wages in this farm regularly? 1. Yes ☐ 2. No ☐

49. Explain your answer in either case……..…..

……

50. After how long are wages increase effected in this farm? 1. After six months
2. Annually ☐ 3. After two years ☐ 4. Other specify.....

51. How many hours do you work per day? 1. Less than eight hours ☐ 2.Eight hours ☐
3. More than eight hours ☐ 4. Other (Specify).....

52. Does your wage cater for the hours worked in the farm? 1. Yes ☐ 2. No ☐

53. If you work more than eight hours are you compensated for the extra hours?
1. Yes ☐ 2. No ☐

54. Are you remunerated using the same rates for all extra hours worked in this farm?
1. Yes ☐ 2. No ☐

55. If No, specify.....

56. Do you work in shifts? 1. Yes ☐ 2. No ☐

57. How many work-shifts do you have per day? 1. One ☐ 2. Two ☐ 3. Three ☐

58. In this farm are there people who are supposed to report at night? 1. Yes ☐ 2. No ☐

59. Are night-shifts workers given transport? 1. Yes ☐ 2. No ☐

60. Do you have leave days? 1. Yes ☐ 2. No ☐

61. If no, (Specify).....

62. If yes, how many days per annum? 1. Less than 28days ☐ 2. 28 days ☐
3. More than 28 days ☐

63. During the leave days are you given any amount of money? 1. Yes ☐ 2. No ☐

64. If yes, what type of allowance? ……

65. How much money are you given as leave allowance……

66. Do you think that everything is done to improve your wage status by your employer in this industry? 1. Yes ☐ 2. No ☐

67. If No, please explain.....

Rate the following statements on the given scale

		Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
68.	Workers wage are regulated in all cut flower farms	1	2	3	4	5
69.	Workers in cut flower industry are satisfied with their wages	1	2	3	4	5
70.	Workers' wages is increased regularly	1	2	3	4	5
71.	Workers rarely complain due to low wage	1	2	3	4	5
72.	Workers are satisfied with the current wage	1	2	3	4	5
73.	Workers are not compensated for extra hours worked	1	2	3	4	5
74.	Workers are provided with transport when going home	1	2	3	4	5
75.	Workers are not provided with transport when reporting to work	1	2	3	4	5

C. Working environment

In this section am going to ask questions related to health and safety of workers in this farm. This will enlighten on issues related to working conditions exposed to workers. Further, how issues related to worker's health is safeguarded in this farm.

76. How would you describe your current working condition?

1. Excellent ☐ 2. Good ☐ 3. Fair ☐ 4. Poor ☐ 5. Very poor ☐

77. How can the current working conditions be improved? (Specify).....

.....

78. Do you have health medical cover? 1. Yes ☐ 2. No ☐

79. If yes, who pays for the medical cover? 1. Individual worker ☐ 2. The company ☐

3. Other (specify).....

80. In case of work related diseases, who takes care of the bill? 1. Individual worker ☐

2. The company ☐ 3. Other (specify).....

81. Do workers in this farm undergo for medical examination after sometime?

1. Yes ☐ 2. No ☐

82. Specify your answer in either case.....

.....

83. If yes who takes care of the medical bills? 1. Individual worker ☐

2. The employer ☐ 3. Other (specify).....

84. When working in the farm are the workers provided with chemical protection gear like gum-boots, gloves, chemical safety glasses and rain-coat? 1. Yes ☐ 2. No ☐

85. How many are you given? 1. One set of a PPE per annum ☐ 2. One pair of PPEs per annum ☐ 3. Given at the discretion of the supervisor ☐

86. How effective are they? 1. Very effective ☐ 2. Effective ☐ 3. Moderate ☐

4. Poor ☐ 5. Very poor ☐

87. Is everybody provided with chemical protection devices? 1. Yes ☐ 2. No ☐

88. What happens if fails to put on chemical protection devices? (Specify)

.....

.....

89. Are you provided with trainings on health and safety in this farm? 1. Yes ☐ No ☐

90. If yes, who facilitates the training? 1. The company ☐ 2. Workers ☐

3. Other (specify).....

Rate the following statements on the given scale

		Always	Often	Sometimes	Rarely	Never
91.	The farm provides workers with medical cover	1	2	3	4	5
92.	The workers are provided with chemical working devices	1	2	3	4	5
93.	In case of sickness the employer takes care of the sick worker	1	2	3	4	5
94.	In case airborne related sickness the worker is compensated by the farm	1	2	3	4	5
95.	The farm offers trainings to workers on how to safeguard their health	1	2	3	4	5
96.	Safety and health trainings of workers are offered in this farm	1	2	3	4	5
97.	Experts in health and safety related field are hired by the employer to offer trainings for workers	1	2	3	4	5

D. Role of state in cut flower industry.

In this section am going to ask questions to establish the role which the government has played towards safeguarding the interests of workers.

98. Is there a role played by the GoK in cut flower industry to enhance cordial relationship between workers and employers? 1. Yes ☐ 2. No ☐

99. If yes, list the activities carried out by the GoK in order of priority in cut flower industry?

i. ……

ii. ……

iii. ……

iv. ……

100. Has the government safeguarded the interests of the workers in cut flower industry?

1. Yes ☐ 2. No ☐

101. Have you ever seen government officials in this farm? 1. Yes ☐ 2. No ☐

102. If yes, what was the reason of their visit? ……

……

103. Is there an issue which you have experienced in this farm that needed government intervention? 1. Yes ☐ 2. No ☐

104. If yes, specify.....

……

105. If yes, has the government officials addressed the issue? 1.Yes ☐ 2.No ☐ 8.N/A ☐

106. If no, (specify).....

107. What can the government do to improve workers conditions? (specify)

.....……

……

Rate the following statements on the given scale

		Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
108.	The governments safeguards the interests of the workers	1	2	3	4	5
109.	The government safeguards the interests of employers in cut flower industry	1	2	3	4	5
110.	The government intervene in case of conflict between workers and employers in the industry	1	2	3	4	5
111.	There have been relaxation of government officials in dealing with workers grievances in the industry	1	2	3	4	5
112.	The government officials only listens to the employers views	1	2	3	4	5

E. Role of Non-State actors in Cut flower industry

In this section am going to ask questions to establish the role which the non-state actors (trade unions, civil rights groups) has played towards safeguarding the interests of workers in cut flower industry.

113. Are you a member of trade union in this industry? 1. Yes ☐ 2. No ☐

114. If yes, which trade union are you a member? (Specify).....

.....

115. Which are the benefits do you enjoy as a member of trade union? (Specify)

.....

.....

116. If no, why aren't you registered? .....

.....

117. Which are the requirements for registering with a trade union? (specify)

.....

……

118. Do you think that trade unions' activities respond directly to the workers' needs?

1. Yes ☐ 2. No ☐

119. If No, what did you expect trade union to do? .....

……

120. Have you ever been visited by trade union officials in your place of work?

1. Yes ☐ 2. No ☐

121. If yes, how regular do the trade officials gives you a visit (per annum)? 1. Once ☐

2. Two times ☐ 3. Three times ☐ 4. Four times ☐ 5.Never ☐

7. Other specify.....

122. Are you comfortable with the number of times you meet with labour union officials? 1. Yes ☐ 2. No.☐

123. If No, would you like an increase or a decrease?

1. Increase ☐ 2. Remain the same ☐ 3. Decrease ☐

124. In case of grievances by workers, does your union act on your behalf?

1. Always ☐ 2. Sometimes ☐ 3. Never ☐

125. If no, who usually forward your grievances? 1. None ☐

2. Worker's representative ☐ 3. Other (specify)….....

126. Is there an NGO which has ever worked toward the wellbeing of workers in this farm? 1. Yes ☐ 2. No ☐

127. If Yes, specify……...

128. Do you think that NGOs can be relevant in dealing with issues related to relations between workers and employers? 1. Yes ☐ 2. No ☐

129. If yes, specify how? .....

.....

Rate the following statements on the given scale

		Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
130.	There is a rapport between the workers and employers in cut flower industry	1	2	3	4	5
131.	Workers in cut flower farms are allowed to join trade unions freely	1	2	3	4	5
132.	The trade unions fight for workers' rights	1	2	3	4	5
133.	Trade unions does not represent the interests of workers	1	2	3	4	5
134.	Trade unions assist employees to renew collective contracts	1	2	3	4	5
135.	Trade unions organize employee studies of various laws and regulations related to health and safety in production	1	2	3	4	5
136.	Trade unions does not help out employees with difficulties	1	2	3	4	5
137.	Trade unions initiate various activities for women workers in connection with their needs	1	2	3	4	5
138.	The trade unions bargain for wages increase on behalf of workers in cut flower industry regularly	1	2	3	4	5
139.	NGOs fights for workers' rights	1	2	3	4	5

F. Labour Policies

In this section the questions will focus on labour relations between the workers and employer. This will establish whether the labour policies are adhered to in this industry.

140. Are the workers aware of their rights in this industry?

1. Yes ☐ 2. No ☐

141. If yes list the rights which a worker is entitled to.

1……..…2……

3……..4…….....…….....

142. Do you know of any labour policies in this industry? 1. Yes ☐ 2. No ☐

143. If yes, list the, one you know.

1……

2……

3……

4……

144. Are workers' wages deducted in this farm? 1. Yes ☐ 2. No ☐

145. If yes, does it exceed two thirds of workers wage? 1. Yes ☐ 2. No ☐

146. Do you contribute to National Social Security fund (NSSF)? 1. Yes ☐ 2. No ☐

147. In case of termination of work for an employee who has worked for more than five years is the worker given any payment of service? 1. Yes ☐ 2. No ☐

148. When does one deserve to be given "payment of service"?.....

149. In case of an injury of a worker while on duty is he/she compensated?

1. Yes ☐ 2. No ☐

150. Are workers in this farm insured by the employer? 1. Yes ☐ 2. No ☐

151. Do you contribute to National Hospital Insurance fund (NHIF)? 1. Yes ☐ 2. No ☐

152. Are labour policies implemented in our country? 1. Yes ☐ 2. No ☐

153. If No, what could be done to ensure the implementation of labour policies? Explain

……..……..……

.....

154. Who should ensure the implementation of labour policies in this industry?

1. Government ☐ 2. Labour unions ☐ 3.Government and labour union ☐

4. Other specify……

Rate the following statements on the given scale

		Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
155.	Workers in cut flower industry know their rights	1	2	3	4	5
156.	Workers in cut flower industry are aware of minimum wages.	1	2	3	4	5
157.	Workers in cut flower industry are aware of good conditions environment	1	2	3	4	5
158.	Workers are rarely registered under National Social Security fund Act	1	2	3	4	5
159.	Workers are registered under National Hospital Insurance fund Act	1	2	3	4	5
160.	Workers with HIV/AIDS are discriminated by the employer	1	2	3	4	5
161.	Workers with HIV/AIDS are not discriminated by their fellow workers	1	2	3	4	5
162.	The workers' rights are never respected by the employers	1	2	3	4	5
163.	Labour policies in cut flower industry are wholly implemented by the state	1	2	3	4	5

G. Coping Strategies

164. Are there challenges facing workers in this industry? 1. Yes ☐ 2. No ☐

165. If yes, which are the key challenges facing workers in order of priority? List them from the most challenging.

1……

2……

3……

166. How can the government help in improving workers conditions?

……

……

167. How can the labour unions help in improving workers conditions?

……

……

168. How can the civil societies help in improving workers conditions?

……

……

169. How can the flower farms help in improving workers conditions?

……

……

Appendix 3: Interview Guides (Key Informant/ Focus Group Discussion)

Introduction

My name is Mr. KABIRU JOSEPH GITHUI from University of Nairobi, Department of Sociology. I am conducting a research on labour relations between workers and employers in cut flower industry. I am interviewing the workers in cut flower industry.

You have been selected for interview to provide the required information for the study. The data collected will be used for academic purpose in matters relating of labour relations in Kenya. I am kindly requesting you to spare some time for an interview that will take less than one hour. The information that you provide will be treated with utmost confidentiality.

1. Terms of employment
- Casual workers
- Semi-permanent
- Permanent
2. Remuneration of workers
- Wage levels

3. Workers benefits
- Work environment
- Benefits of workers (NHIF, Pension in case of retirement)
- Annual rewards after every financial year
- Staff training and growth
- Staff turn-over

4. What is the nature of labour policies practiced in cut flower industry?
- Working hours
- Awareness of workers' rights
- Workers safety items
- Training of workers for safe, healthy working conditions.

5. What are the operations of the State in cut flower industry?

- Establishing minimum wages
- Establishment of safety nets
- Intervention by government
- Implementation of occupational safety policy
- Implementation of health policy

6. What are the role non-state actors in cut flower industry?

- Civil rights groups
- Trade unions
- Workers awareness of civil rights groups, trade unions
- Workers awareness of auditing firms like KFC, FPEAK

7. Owners of farms

- Multinational company
- Local entrepreneurs

Appendix 4: NACOSTI Permit Letter

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 3632

CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MR. JOSEPH GITHUI KABIRU
of UNIVERSITY OF NAIROBI, 0-100 Nairobi,has been permitted to conduct research in *Kiambu , Laikipia , Nakuru Counties*

on the topic: *THE SOCIAL STRUCTURE OF CUT FLOWER INDUSTRY IN KENYA.A COMPARATIVE SURVEY OF CUT FLOWER WORKERS IN SELECTED FARMS.*

for the period ending:
31st December,2015

Permit No : NACOSTI/P/14/9615/3996
Date Of Issue : 13th November,2014
Fee Recieved :Ksh 2,000

.....
Applicant's Signature

.....
Secretary
National Commission for Science, Technology & Innovation

Appendix 5: Research Authorization

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:

13th November, 2014

NACOSTI/P/14/9615/3996

Joseph Githui Kabiru
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"The social structure of cut flower industry in Kenya. A comparative survey of cut flower workers in selected farms,"*** I am pleased to inform you that you have been authorized to undertake research in **Kiambu, Laikipia and Nakuru Counties** for a period ending **31st December, 2015.**

You are advised to report to **the Chief Executive Officer of Fresh Produce Exporters Association of Kenya, the County Commissioners and the County Directors of Education, Kiambu, Laikipia and Nakuru Counties** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. S. K. LANGAT, OGW
FOR: SECRETARY/CEO

Copy to:

The Chief Executive Officer
FPEAK.

Appendix 6: The Workers' Welfare Manifest Variables and their Factor Loadings

Variable	Factor1	Factor2	Factor3	Uniqueness
q39 (WW1)	0.5305	0.3118	-0.0071	0.6213
q23(WW2)	0.544	0.2494	0.0341	0.6407
q89 (WW3)	0.6023	-0.1194	-0.0005	0.6229
q70 (WW4)	0.5815	-0.2025	-0.0091	0.6208
q130 (WW5)	0.6379	-0.0284	-0.0581	0.5889
q131 (WW6)	0.5134	-0.1817	0.0542	0.7005
Eigen values	**1.94879**	**0.24844**	**0.0076**	

Appendix 7: The Remuneration of Workers Manifest Variables and their Factor Loadings

Variable	Factor1	Factor2	Factor3	Factor4	Uniqueness
q46 (RW1)	0.2417	-0.2329	0.0369	0.0814	0.8793
q53 (RW2)	0.827	0.0978	-0.167	0.0002	0.2786
q73 (RW3)	-0.786	-0.0095	0.2398	-0.0028	0.3245
q149 (RW4)	0.5257	0.0749	0.2886	-0.0115	0.6347
q162 (RW5)	0.4771	0.0098	0.2919	-0.0074	0.6871
q40a(RW6)	-0.1674	0.4879	-0.0564	-0.0013	0.7308
q40b (RW7)	0.0134	0.4257	0.0785	0.0558	0.8093
q57 (RW8)	0.2435	0.0383	0.0668	-0.0842	0.9277
Eigen values	**1.95163**	**0.49030**	**0.26904**	**0.01703**	

Appendix 8: The Market Accrediting Agencies Manifest variables and Factor Loadings

Variable	Factor1	Factor2	Uniqueness
q33 MPAA1	-0.0366	0.0426	0.9968
q29 MPAA2	0.8315	-0.0015	0.3086
q30 MPAA3	0.8308	0.0034	0.3098
Eigenvalues	**1.38297**	**0.00183**	

Appendix 9: The Effectiveness of the State Manifest Variables and their Factor Loadings

Variable	Factor1	Factor2	Factor3	Uniqueness
q98 STATE1	0.7937	0.2531	0.0423	0.3041
q100 STATE2	0.8091	-0.0608	0.187	0.3067
q101 STATE3	0.7243	0.2885	-0.0208	0.3917
q108 STATE4	0.7801	0.0578	-0.1955	0.3499
q111 STATE5	-0.7335	0.2195	0.1395	0.3944
q112 STATE6	-0.6974	0.2329	0.1291	0.4428
q152 STATE7	0.5809	-0.1418	0.3012	0.5517
Eigen values	**3.77952**	**0.27690**	**0.20225**	

Appendix 10: The Owner of Capital Manifest variables their Factor Loadings

Variable	Factor1	Factor2	Factor3	Factor4	Uniqueness
q48 OC1	0.4072	-0.1701	0.2767	0.0207	0.7283
q81OC2	0.5805	-0.0924	0.3395	0.0686	0.5345
q87 OC3	-0.6398	0.3082	-0.2087	0.0737	0.4467
q90 OC4	0.6859	0.1992	-0.1604	0.1525	0.4409
q93 OC5	0.7317	0.4816	0.0703	-0.0017	0.2276
q94 OC6	0.6551	0.5195	0.0956	-0.0837	0.2848
q95 OC7	0.9213	-0.1977	-0.2592	-0.0313	0.0439
q96 OC8	0.9094	-0.2341	-0.2774	0.0374	0.0398
q97 OC9	0.8321	-0.0656	-0.2188	-0.0747	0.2498
q147 OC10	0.585	-0.102	0.386	0.0127	0.4982
Eigen values	**5.05768**	**0.78263**	**0.61615**	**0.04896**	

ppendix 11: Non-state actors' Manifest variables and their factor loadings

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Uniqueness
q113 NSA1	0.6861	0.3743	-0.1143	0.1807	0.0273	0.0127	0.3425
q115 NSA2	0.6965	0.1648	-0.3234	-0.0747	0.0872	-0.0042	0.3699
q118 NSA3	0.8249	0.0189	0.0678	-0.2648	0.0906	-0.0011	0.2362
q120 NSA4	0.8132	0.2704	0.1596	-0.1206	-0.0399	-0.0059	0.2240
q124 NSA5	0.7702	0.3266	0.135	0.0236	-0.1123	0.0042	0.2687
q132 NSA6	0.8943	-0.2474	-0.0454	-0.0669	-0.0414	0.0157	0.1306
q133 NSA7	-0.8411	0.2626	0.0796	0.0264	0.1016	-0.0206	0.2058
q134 NSA8	0.8071	-0.1296	0.1889	0.0948	0.111	0.0071	0.2748
q135 NSA9	0.7747	-0.1418	0.1139	0.1087	0.033	-0.0272	0.353
q136 NSA10	-0.8458	0.1139	0.1427	-0.0364	0.0835	0.0326	0.2419
q138 NSA11	0.851	-0.1242	0.0019	0.1372	0.0502	0.0097	0.2389
Eigenvalues	7.0894	0.5428	0.2434	0.1696	0.0657	0.0029	

Appendix 12: Regression test on the effects of interaction between owners of capital and workers' remuneration

Variables	**Probit indices**				**Marginal effects** **y = Pr(Welfare2) = 0.5707**			
Welfare (WW5)	Coef.	Std. Err.	Z	P>z	dy/dx	Std. Err.	Z	P>z
RW2	0.45	0.1539	2.89	0.004	0.1749	0.0607	2.88	0.004
OC7	0.33	0.1828	1.80	0.072	0.1294	0.0720	1.80	0.072
Var1 (Interaction)	-0.047	0.0593	-0.79	0.427	-0.0185	0.0233	-0.79	0.428
_cons	-1.70	0.4352	-3.91	0.000				
Number of obs = 358 LR X^2 = 53.36 Prob > X^2 = 0.000 Pseudo R^2 = 0.109								

Appendix 13: Regression test on the effects of interaction between status of certification of farm and owners of the capital

Variables	**Probit indices**				**Marginal effects** **y = Pr(Welfare2)= 0.5634**			
Welfare (WW5)	Coef.	Std. Err.	Z	P>z	dy/dx	Std. Err.	Z	P>z
MPAA2	1.43	0.404	3.55	0.000	0.5227	0.1193	4.38	0.000
OC7	0.405	0.109	3.72	0.000	0.1597	0.0434	3.68	0.000
Var2 (Interaction)	-0.207	0.141	-1.47	0.141	-0.0815	0.0555	-1.47	0.142
_cons	-1.475	0.316	-4.66	0.000				
Number of obs = 358 LR X^2 = 65.5 Prob > X^2 = 0.000 Pseudo R^2 = 0.1340								

Appendix 14: Regression test on the effects of interaction between the role of state and non-state actors

Variables	**Probit indices**				**Marginal effects** **y = Pr(Welfare2) = 0.5794**			
Welfare (WW5)	Coef.	Std. Err.	Z	P>z	dy/dx	Std. Err.	Z	P>z
STATE2	1.1451	0.3795	3.02	0.003	0.4318	0.1293	3.34	0.001
NSA6	-0.1833	0.0945	-1.94	0.052	-0.0717	0.0370	-1.94	0.053
Var3	0.01850	0.1427	0.13	0.897	0.0072	0.0558	0.13	0.897
_cons	-0.0682	0.2693	-0.25	0.800				
Number of obs. =358 LR X^2 =83.57 Prob > X^2 = 0.000 Pseudo R^2 = 0.1710								

Appendix 15: Regression test on the effects of interaction between the owners of the capital and non-state actors

Variables	**Probit indices**				**Marginal effects** **y = Pr(Welfare2) = 0.5775**			
Welfare (WW5)	Coef.	Std. Err.	z	P>z	dy/dx	Std. Err.	Z	P>z
OC7	0.7945	0.1572	5.05	0.000	0.3110	0.0615	5.06	0.000
NSA6	0.0188	0.1345	0.14	0.889	0.0074	0.0526	0.14	0.889
Var4	-0.1533	0.0515	-2.98	0.003	-0.0600	0.02011	-2.98	0.003
_cons	-0.8954	0.3930	-2.28	0.023				
Number of obs. =358 LR X^2 =60.36 Prob > X^2 = 0.000 Pseudo R^2 = 0.1235								

Appendix 16: Regression test on the effects of interaction between the owners of the capital and the role of the state

Variables	**Probit indices**				**Marginal effects** **y = Pr(Welfare2) = 0.57746**			
Welfare (WW5)	Coef.	Std. Err.	z	P>z	dy/dx	Std. Err.	Z	P>z
STATE2	0.5276	0.4188	1.26	0.208	0.2057	0.1611	1.28	0.202
OC7	0.1030	0.0822	1.25	0.211	0.0402	0.0321	1.25	0.211
Var5	0.2239	0.1492	1.50	0.133	-0.0874	0.0582	1.50	0.133
_cons	-0.7631	0.2057	3.71	0.000				
Number of obs. =358 LR X^2 =60.36 Prob > X^2 = 0.0001 Pseudo R^2 = 0.1762								