The Expansion of Floriculture Industry and its Livelihood Impacts on Local People: the case of Holeta Town and its Surrounding Areas, Oromia Regional State

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A Thesis submitted to Institute of Regional and Local Development Studies presented in partial fulfillment of the requirement for the Degree of Masters of Arts in Regional and Local Development Studies

Addis Ababa University

Addis Ababa, Ethiopia

May 2012

Addis Ababa University

School of Graduate studies

This is to certify that the thesis prepared by Aseffa Gutema, entitled: *Floriculture Industry and its livelihood impacts on local people* and submitted in partial fulfillment of the Requirements for the degree of Masters of Arts in Regional and Local Development Studies complies with the regulation of the University and meets the accepted standards with respect to originality and quality.

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Abstract

More often, many developing countries are in need of heighted investment activities for the associated benefit in employment and income generation. Nevertheless, despite its positive impact pertaining to employment, there hardly been sustained effects on the livelihood of local communities. To this end, the study principally examined the impact of floriculture industry on the livelihood of local people at Holeta town surrounding areas. To achieve this objective, the study employed Cernea's IRR model. In doing so, the study used, interview, key informant discussion, observation and focus group discussion.

The result of the study revealed that due to the floriculture investment 253-farm households were displaced in four kebeles of Holeta town administration. The dislocation program negatively affected the livelihood of the displaced households. In this case, economic dependency, loss of diverse income sources, and changes in livelihood system resulted from the displacement. Furthermore, the study denoted that elders, women, youths and children are major victims of the altered livelihood system. The compensation schemes implemented in response to loss of asset are insignificant to changed livelihoods system. Consequently, the expansion of flower farms investment and associated displacements exposed households to landlessness, health problem, joblessness, loss of access to common property resources, marginalization, social disarticulation and food insecurity. The coping mechanisms or strategies adopted by the majority of the displaced households are unable to either maintain or foster diverse sources of income to adapt the new situation of life. The displacement of local people for the purpose of floriculture investment needs participation of all stakeholders in planning, monitoring and implementation. This will bring mutual benefit to all concerned and make viable sustainable livelihoods alternatives for displaced households and thereby create better socio-economic development at grass root level.

Keywords: The Impact of Floriculture Industry, Displacement, Livelihood Resources, Local households

Acknowledgements

First of all, I thank Almighty God for He is always with me in all my endeavors and giving me endurance to complete my study. Next, I would like to express my sincere gratitude to my advisor Woldeamlak Bewket (PhD) for his constructive comments and valuable guidance from the beginning to the finalization of the study.

I also would like to express special gratitude to Mr. Tom Lavers and Ketema Wakjira for their cooperation to conduct the research and essential suggestions to make the study realistic. My gratitude also goes to the farm workers, farm managers, and household informants. Moreover, Iam highly indebted to express my sincere gratitude to Holeta Town administration for sponsoring my postgraduate study.

I am also like to thank Adde Rabiya Ibrahim, Sabla wongel Mamo,Tezera Dasalegn, Mari Midekssa and Kuma Hunde for their moral and material assistance starting from the inception to completion of the study. At last but not least, I would like to extend my heartfelt gratitude to my wife Almaz Mosisa for her lovely care, moral support and encouragements during my stay in postgraduate study.

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List of Acronyms

ADLI: Agricultural Development Led Industrialization

CED: Community Economic Development

CSA: Central Statistical Authority

DFID: Department for International Development

ETB: Ethiopian Birr

EU: European Union

FAO: Food and Agricultural Organization of the United Nation

FGD: Focus Group Discussion

GDP: Gross Domestic Product

HABRC: Holeta Agriculture and Bee Research Center

HTA: Holeta Town Administration

HTIO: Holeta Town Investment Office

HTWSO: Holeta Town Water Supply Office

IO: Investment Office

IRR: Impoverishment Risk and Reconstruction Model

LDC: Least Developed Countries

LSAO: Labour and Social Affairs Office

MoARD: Ministry of Agriculture and Rural Development

MoFED: Ministry of Finance and Economic Development

MoTI: Ministry of Trade and Industry

NBE: National Bank of Ethiopia

PAP: Project Affected People

SLA: Sustainable Livelihood Approach

SNNPRS: Southern Nations and Nationalities of People Regional State

SPSS: Statistical Package for Social Sciences

USD: United State Dollar

USEPA: United State Environmental Protection Authority

UWEA: Uganda Workers Education Association

Glossary of Local Terms

Adde: Miss

Areqe, taji: Local brewed alcoholic drinks

Birr: Ethiopian currency

Debo: Mutual work association

Derg: Military Government that ruled Ethiopian between 1974-1991

Equb: Saving exchange group

Iddir: Neighborhood burial association

Kebele: The smallest administrative unit

Tella: Local beer

Woreda: The third lower tier of administration between the Zone and Kebele

Zone: An intermediate layer of administration between the Region and Woreda

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Agriculture is the dominant sector of the Ethiopian economy in its contribution to GDP, export earnings and source of employment. One of the strategies of the Ethiopian government to accelerate economic development and to improve the living standard of the peoples is the industrial development strategy. The strategy is prepared based on Agricultural Development Led Industrialization Strategy (ADLI) and has been implemented since 2001/02. This involves strengthing inter-sectoral linkages (between agriculture and industry) on the domestic front through exploiting the potential and opportunities of regional and global economic integration. The industrial development strategy is developed within the framework of free market economy. Hence, this gives much attention to the development of private sector in the agro-processing industry (MoFED, 2006).

Consequently, current free market policy of Ethiopia encourages local community based private oriented industrialization because it helps for macroeconomic stability, rural poverty reduction and fast national economic growth. Economic growth can be manifested in the form of availability of rural income source, better job opportunities, free technical and modern ideas transfer and so on. Specially, increasing non-farm employment opportunities for rural people has potential to reduce the risk of food shortage during periods of unexpected crop failures through food purchase (Zelalem 2007:2; Fikiru, 2008:1).

Therefore, in order to reduce household poverty, establishment of an industry in a given locality could have positive effects on the surrounding community livelihood. More specifically, the provision of employment to the surplus labor is one of the fundamental concepts behind its economic implication. The money collected via salary or wage circulates with in a village economy could also initiate petty trade in the locality (Waker, 1992).

Meier (1995) identified that the surrounding community could benefit from the infrastructure built by industry for its own purpose. Furthermore, he indicates that creation of forward and backward linkage with the industry is another opportunity. However, in order to materialize these benefits, relevant involvements of all stakeholders of the industry is determinant factor. These stakeholders include government, the private sector and local community at large. More importantly, prior to establishment of an industry in a given location, considering the physical setting and socioeconomic situation of the people helps for identifying mutual benefit of both the industry and local community (Chapman and Waker, 1992).

The Federal Government of Ethiopia has encouraged the export of horticulture sector including the floriculture. As a result, an attractive investment package such as duty free import of machinery, easy access to bank loan, tax holiday for 5 years, and lease of land with basic infrastructure like electricity, water supply, and telephone, at low prices are offered for the investors in floriculture industry. In addition, favorable agro-ecological condition, abundant and cheap labor has also facilitated expansion of the floriculture industry. Consequently, business environment around the floriculture industry has improved and up to 2009 around 72 flower farms are in operation (Gebreeyesus and Iizuka, 2010).

Flower production is labour intensive and therefore has the potential to create relatively many job opportunities. For instance, as Tewudros (2010) asserted, floriculture sector has created employment opportunity for over 50,000 unemployed people both at rural and urban areas. However, the sector expansion and the benefit gained are through displacement of local people from their land and thereby affect their livelihood bases (Tewudros, 2010; Bedada and Eshetu, 2011).

Concerning this, the main aim of this research was to assess the impact of floriculture industries on the livelihood of the local community living vicinity of the investment area at Holeta town and its surrounding areas. Hence, assessing economic, social and environmental costs caused by expansion of floriculture industry were the main focus of the study.

1.2. Statement of the problem

As Tewudros (2010) asserted, the importance of the private sector in Ethiopia can be seen in terms of employment generation, innovation and creativity, proper use of both human and physical resources and maintaining economic independency of the country. In order to drive these benefits the government has created an enabling environment through provision of incentive package like custom clearance, removing institutional bottlenecks, and strengthen financial and banking services to encourage both domestic and foreign investors. As a result, the strong initiative of the government helps to generate foreign currency and employment opportunities from private investments. Specifically, young unemployed citizens, particularly women have been able to take advantage of employment opportunities arising from the introduction and growth of the cut-flower industries in Ethiopia (MoFED, 2006; Daniel, 2009; Tewdros, 2010).

However, labor and foreign currency advantage of the sector overshadow the socio economic and ecological costs of the sector. Government officials suggest that the environmental and

social impact of the sector is less compared to its economic benefit while others persuasively argue that it has environmental and social impacts (Fatima, 2007). Moreover, as Frank and Cruzl (2001) asserted, even if the floriculture industry is taken as solution for economic development and generation of employment during the last three decades in developing countries, advantages of the sector are at socio-economic and environmental cost of the local people.

Furthermore, the Study made by Bedada and Eshetu (2011) indicated that local communities displaced from their farmland for the investment of floriculture industry. Besides, even if floriculture industries create employment opportunities the wage obtained from the employment is minimal and employees could not subsidize their households (Tigist, 2007). Consequently, local households lost access to livelihood resources (farmland, water resources, grazing fields, forestlands, etc.) on which they base their livelihood affected by the intervention of floriculture industries. Thus, the impact is not only limited to the physical eviction of households but it reduces livelihood diversities of farm households and thereby changes the way they earn a living (Lavers, 2011).

In Holeta town surrounding areas, floriculture industries expended over a total area of 757.83 hectares of land that was previously used for crop production, grazing fields, and forests. As a result, 253 households displaced and lost access to farmlands and communal resources. Consequently, the main emphasis of this research was to explore the impact of floriculture expansion up on main livelihoods activities and socio economic condition of local peoples.

However, despite some studies have been done on floriculture sector, they are not sufficient to understand the impacts that the sectors have on the livelihoods of local people though the studies used different methodology, and theoretical support to deal with the issues. Hence, this research project attempted to fulfill the knowledge gap left by previous studies through examining the impacts of floriculture industry on the main livelihood activities of local people by exploring challenges, views and experiences of relevant stakeholders. Therefore, the research results hoped to contribute for further research and help to monitor and evaluate the sector from different angles.

1.3. Objectives of the study

1.3.1. General Objective

The general objective of this study is to explore the impact of floriculture industry on the livelihood systems of local people at the Holeta town surrounding areas of Oromia Regional State.

1.3.2. Specific objectives

- To examine the impoverishment risk variables resulting from the displacement of farm households;
- To assess the perception of displaced households in terms of benefit packages provided by floriculture industries;
- To explore the copping strategies used by displaced households to adapt the new livelihood system.
- To investigate the gains and socio-economic costs of flower farm workers;

1.4. Research questions

1. What are the impoverishment risk variables due to displacement by floriculture industries?
2. What are the perceptions of displaced households towards benefit package provided by the floriculture industries?
3. What are the coping strategies used by displaced households to adapt the altered livelihood systems resulted from floriculture expansion in the area?
4. What are the socio-economic costs and benefits of flower farms workers in the study area?

1.5. Significance of the Study

Obviously, the recent progress in the floriculture investment in Ethiopia has come up with different public views with both pros and cons on it. Some of the arguments favor the economic advantage the sector brought for the country. The other extreme raises the long-term ecological and economic disadvantages of the sector threatening human and social conditions.

Therefore, the study have both academic and policy implications. Hence, as it is aimed to reveal various issues from the local perspectives about the effect of the floriculture sector, it will be valuable for policy makers and practitioners in the study area. Most importantly, the study, by examining the livelihood of the dislocated households, provides information for policy makers, planners and concerned officials to evaluate their development programs and strategies. It also indicates areas of intervention for concerned stakeholders.

1.6. Limitations of the Study

Floriculture expansion has caused displacement, dislocation and dispossession of the rural farming community in the vicinity. The study was largely based on household heads who were dislocated and those who obtained compensation in cash and housing plot. Therefore, the selected sample household heads may not adequately represent the characteristics of all farmers affected by the floriculture expansion over livelihood resources of the area. In particular, those household heads that did not possess housing plot and compensation for their lost asset were not represented in the study. In addition, detail information on household material possession and utilization of incomes were not covered by the study to make comparison of their previous and present possession.

1.7. Scope and Delimitation of the Study

The study is delimited to Holeta town Surrounding areas of Oromia Regional state that has relatively high concentrations of floriculture industries. In the area, expansion of floriculture industries was took place in four kebeles of town administration, namely *Sadamo, Gelgel kuyu, Birbirsa siba and Burka Harbu* kebeles.

These areas are where farmers have already been evicted from their farmlands and residence; and relocated suburbs of the town. The assessment of the impact of floriculture expansion on the local people was based on farming households that took compensation in cash for the loss of farmland, grazing field and residence, and workers in flower farms. Accordingly, due to time and resource constraints, the study was limited to a sample survey of 42 displaced household heads and 87 flower farm workers.

1.8. Research Design

A research design is a plan on how the study will be undertaken and indicates whether the research uses one or a combination of more methods (Berg, 1995). The study used both qualitative and quantitative research design. In such away, mixed method of research was utilized to gain detail, representative and valid information.

1.9. Research Methods

In order to investigate the impact of floriculture expansion on local community's livelihood activities data from both primary and secondary sources were used. The primary data were collected from household surveys and through participatory approach, which included focus group discussions, key informants interviews and personal observations. Accordingly, both open and closed ended questionnaires were used to collect required information about the

issue understudy. Besides, secondary data were collected from relevant published and unpublished documents. Furthermore, all the methods used to undertake the study are elaborated below:

1.9.1 Qualitative Methods

Although quantitative approaches were used for this study, high weight has been given for qualitative method. This is because of its importance for assessing views and experiences of relevant stakeholder on the issues under study. In such away, the following qualitative data collection techniques were employed to generate data from different sources.

In-Depth Interview

This technique was used to gather relevant data from investment affected informants. Thus, issues concerning the research questions were collected from the targeted group using semi-structured interview guides. This was done by considering sex, age and marital status of the households. In such way, forty-two displaced households were interviewed about their living situation before and after intervention of the investment from four research sites or kebeles.

Focus Group Discussion

The researcher used this method by organizing two groups. The first group consists of seven individuals with different backgrounds. Accordingly, the group consisted of development agents, two health extension workers, two government employees, and two petty traders (male and female). Secondly, the researcher organized a group consists of eight individuals that are from three sections of work in the flower farms (greenhouse, spray and pack house) and displaced households and the researcher undertook the discussion using checklist prepared for focus group discussion. The purpose of FGD is to generate and cross check data gathered from individual informants and to gain general information about the livelihood impact of the flower farms intervention in the areas.

Key Informant Interview

The key informant interviews were held with relevant stakeholders such as local community elders, line government officials (agriculture, investment, water offices, labor and social affair office), Holeta agricultural and bee research center experts as well as flower farm managers. Thus, 14 key informants were interviewed to generate plenty of information on the views and experiences regarding livelihood impact of floriculture industries on the surrounding areas of local community.

Personal Observation

During field stay, the researcher has personally observed both the condition of workers in the industry and the livelihood condition of displaced households. Specially, the researcher has observed household's situation including adjacent neighborhood, nearby ecology and livelihood sources in order to understand the actual reality and compare it with what informants said. Similarly, in floriculture industries the researcher has also observed the condition of work in both greenhouse and pack houses to examine gains and sacrifices of the worker respondents. In such away, the researcher used photograph to support the personal observation. This helps to assess the valid, lively and real picture of the livelihood impact of the floriculture industries.

1.9.2. Sample Survey

To supplement the data generated through qualitative methods, a descriptive survey method was used to generate quantitative data regarding production, income, other economic variables and demographic characteristics of respondents. In the study area, there are 20 flower farms with total employment capacity of more than 6000 workers (HTIO, 2012).

First, to generate data about livelihood impact of flower farms on local community the researcher has purposively selected four flower farms from four *kebeles* of research site. In such way, the researcher sampled 87 workers from these four selected floriculture industries with proportionally 10% from each and using structured questionnaires on socio-economic conditions of the workers data was collected from worker respondents.

In the second stage of sampling, after securing the number of displaced households from town administrative offices, the researcher employed systematic random sampling to select 42 displaced households from the total of 253 displaced households. The aim of this sampling method was to know the household asset status, income level, demographic characteristics and livelihood activities before and after displacement.

1.9.3. Secondary Data Sources

Secondary data has an advantage of saving time and money and ease of access and serves as instrument for understanding and interpreting primary data. Secondary data such as available books, proceedings, research reports, journals articles, newspapers, electronic materials and other publications related to the issue was reviewed.

1.9.4. Selection of the Study Area

In Ethiopia, flower farms are relatively concentrated in the highland ranging from 1,550 to 2,600 meters with in a 50 km radius from Addis Ababa where the international airport is located. Accordingly, floriculture farms are largely confined around the vicinity of Addis Ababa in west Shewa zone particularly in *Holeta, Sebeta and Addis Alem* town areas. Attractiveness of these areas is due to suitable weather condition and all the infrastructure like road, electric power, telecommunication and water have been availed for the investors in the floriculture sector (Tigist, 2006). Out of 36-flower industries, which are found in west Shewa zone, around 20 of them are found in Holeta town and its surrounding areas. Thus, relatively there are high concentrations of flower farms in the area. Moreover, in this area floriculture industries expanded over livelihood resources by displacing 253 farm households from their farmland and residences. As a result, Holeta town surrounding area was selected for the study purpose. Furthermore, the researcher's prior knowledge of the area has also contributed for the selection of the study area.

1.10. Methods of Data Analysis

The study utilized both statistical tools and qualitative descriptions. Data collected through sample survey were first coded and entered in to SPSS program. Then these data were analyzed using SPSS in the form of descriptive statics like percentage, ratios, mean values and frequencies. In addition, qualitative data obtained from in-depth interview, FGDs, key informant discussion and personal observation was transcribed, condensed and analyzed in a qualitative description. In such away, presentation and organization of the data followed the sequence of specific objective of the study.

1.11. Ethical Considerations

Obeying ethical rules, the research data were generated with the direct consent or willingness of informants. Accordingly, the researcher received letter of introduction from the Institute of Regional and Local Development Studies and submitted to concerned town administration officials. After letter of permission has been obtained from local officials, the researcher carried out the research and approached the informants emphasizing that data are required for the intended academic purpose only. In such way, data were collected by employing various techniques with the consent of the participants of the study. Besides, careful attention was given regarding the rights, needs, and values of the study subjects, and maintaining confidentiality of the data and acknowledging sources of information.

1.12. Organization of the paper

The paper is organized in to five major chapters. The first chapter presents background of the study, statement of the problem, objectives of the study, significance of the study, scope and delimitation of the study and research methodology. The second chapter deals with both different literature and conceptual framework. Here different literatures directly or indirectly related to the issue understudy were reviewed. The third chapter presents the study area description. The fourth chapter analyzes the data and discusses the major finding of the study. Finally, chapter five includes conclusion and recommendations based on finding of the study.

1.13. Conceptual Definitions

The following conceptual definitions help through the paper to clarify the theme of the research and the discussions.

- **Floriculture industry-** it is the production of cut flowers, potted flowering and foliage plants and bedding plants in greenhouses or in fields (Zelalem, 2007).
- **Displacement-** refers here not only physical relocation but also loss of livelihood resources in relation to the flower farm investment intervention.
- **Livelihood**-refers to means of survival or strategies of making a living that both displaced and resource dispossessed households in the research area followed as main livelihood activities.
- **Displaced Households** - refers to those households in research area who physically evicted either from their farmlands or both their farmlands and villages.
- **Livelihood change-** refers to change in assets that influence how people make a living.
- **Livelihood Security:** the adequate and sustainable access to income and other resources to enable households to meet basic needs. This includes adequate access to food, potable water, health facilities, educational opportunities, housing and time for community participation and social integration
- **Livelihood Systems:** the activity (ies) that households engage in to earn/make a living.
- **Food security:** when people at all times have both physical and economic access to Sufficient food to meet their dietary needs for a productive and healthy life.

CHAPTER TWO

REVIEW LITERATURE AND CONCEPTUAL FRAMEWORK

2.1. LITERATURE REVIEW

In this section, attempts are made to review different literature on the topic understudy. Accordingly, concepts of livelihood, development of floriculture industry and condition of compensation and other relevant issues that emphasize the impact condition of cut flower industry are summarized.

Specifically, impacts of floriculture industry on local community are examined in terms of displacement, condition of compensation, livelihoods and food security issues. With the expansion of the floriculture industry, there is a growing concern as to its adverse effect on the livelihood of local community. This is due to the land allocated to flower investment were previously used for shifting cultivation and dry-season grazing are no longer available for local residents, and thereby affect existing livelihoods of the local community by undermining subsistence agriculture (Abbinik, 2012).

Ecological factors are also other concern of the flower farms impact on local environmental conditions that need to be taken into account. It is known that these firms need inordinate amounts of surface water for the production of flowers. Consequently, it leads to water shortages in its vicinity areas. Apart from the growing water scarcity, it also causes immediate environment impact like the pesticides and fertilizer residue led to pollution and high nitrate concentrations (Getu, 2009; Tamiru, 2008). This affects the natural environment.

Another feature of flower industry is that like the other horticulture industries, it is labor intensive. This has given a positive image for the sector. It has created job opportunities for more than hundred thousands of citizens directly or indirectly and most importantly, women accounted for 70% of the total work force in rural areas. Though the industry creates job opportunity for many rural and urban poor, it is not without any cost. For instance, study conducted by Tigist in 2006 indicates that working condition in flower farms is poor, unsafe, insecure, low wage and most of the workers are casual and temporary. Besides, Bedada and Eshetu (2011) also asserted that employees related problems like negligence of employee's safety, health and working condition is apparently enormous in floriculture industries. Hence, the review of land allocation, environment issue and earning of wage labour directly or indirectly concerned with the livelihood of the local people. Therefore, brief discussions of all above themes are subsequently undertaken in this chapter.

2.1.1. Definition and Concept of Livelihood

Livelihood refers to the capabilities, assets (including both material and social resources) and activities required for a means of living. Livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities both now and in the future, while not undermining the natural resource base (Chambers and Conway, 1991). As Ellis and Freeman (2005) asserted, livelihood is not only just what people do in order to make a living, but it is also the resources that provide them with the capability to build the satisfactory living, and other variable improving living. Thus, in development thinking, livelihood refers to the way people make a living (Freeman, 2005).

We also speak of "livelihood systems because the livelihood provide coherent and interrelated set of activities that are implemented within a broader environment making a living" that is largely about generating income. It includes aspects of food security (the ability to feed oneself and one's family); providing a home; health; security (reduced vulnerability to climatic, economic or social shocks, etc); sustainability (the ability to continue to make a satisfactory living); power (the ability to control one's own destiny), etc.

Thus, improving rural livelihoods involves more than just increasing the production of crops or livestock. The production of crop or livestock and generating income from such an enterprise is not the only interest of a farm family in Ethiopia. Specifically, different livelihood activities and assets are important to make income and sustain livelihood of rural poor. Thus, understanding different livelihood assets helps us to know the impact condition of floriculture industry on the vicinity of local people livelihood condition.

2.1.2. Approaches and Livelihood Assets

Primarily the livelihood approach is concerned with people. The sustainable livelihoods approach (SLA) seeks to gain an accurate and realistic understanding of people's strength (assets or capital) and how they endeavor to convert these into positive livelihood outcomes. Thus, the concept of sustainable livelihood linked to assets and capabilities improving individual and household social and economic well-beings and associated poverty reduction (Chambers and Conway (1992). The sustainable livelihood framework identifies five core asset categories or types upon which livelihoods are building (DFID, 2001). These are:

Human capital: Represents the skills, knowledge, ability to labor and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives;

Social capital: Includes social resources such as networks and connectedness that increase people's trust and ability to cooperate or membership in more formalized groups. It is important to aid the people to build their livelihoods.

Natural capital: Natural resource stocks from which resource flows and services (such as land, water, forests, air quality and biodiversity, etc.) useful for livelihoods. For instance, good air and water quality represents a basis for good health and other aspects of a livelihood. Thus, it has special importance to people derive all or part of their livelihoods from natural resource-based activities;

Physical capital: Comprises the access to basic infrastructure and affordable transport, secure shelter, adequate water supply and affordable energy; and

Financial capital: Denotes financial resources that people use to achieve their livelihood objectives. It includes labour income, money saving and access to credit (Chambers and Conway, 1992).

2.1.3. Livelihood Strategies

Livelihood strategies comprise the range and combination of activities and choices that people undertake in order to attain their various needs and desired livelihood outcomes. People combine activities to meet their various needs at different times and on different geographical or economical levels. Agricultural producers often have additional ways of making a living as labourers, artisans, processors, beekeepers, pastoralist, etc. that is important sources of income. Thus, a changing asset status further hinders other strategies depending on the policies and institutions. In rural context, households may construct four main categories of livelihood strategies (DFID, 2001). These are:

- Livelihood intensification where the value of output per hectare of land or per animal is increased by the application of more labor, capital or technology;
- Livelihood extensification where more land or animals are brought in to production at the same level of labour, capital or technology;
- Livelihood diversification where households diversify their economic activities away from reliance on primary enterprise (livestock or cropping), typically seeking a wide range of income; and

- Migration where people move away from their initial sources of livelihood, and seek a living in other livelihood system. Consequently, the ways of making a living often change as families or people move from one phase in their life cycle to another places.

2.1.4. Sustainable Livelihood and its Elements: Food security

Food security is important element of livelihood security. Livelihood security encompasses food security, social security and psychic security. The reason for which some households are food insecure are rooted in some way or another when entire livelihood systems has changed and adapted, or failed to adapt to the challenges from the ecological, economic, and environmental shocks (Hire math, 2007).

Livelihood is characterized by its interdependence with different economic activities. Very few livelihoods exist in isolation. A given livelihood relies on other livelihoods to access and exchange assets. For instance, traders rely on farmers to produce goods and supply for final consumers. Thus, a given livelihood in a particular locality could have an impact on the other livelihood conditions. This is particularly important to understand either benefited or affected group of people where the floriculture industries expanded over large extensive area of land (ibid, 2007). Obviously, majority of people in Ethiopia are peasant farmers, their livelihood heavily rely on access to natural resources (particularly land and water) to feed themselves and their families both through directly consuming the food produced and/or through income generating activities that allow the purchasing of food. Thus, losing access to land and related resources by private development projects like floriculture sector affects livelihood bases of local people. Therefore, sufficient standard of living including food, housing, proper compensation and rehabilitation are important elements aid the local people lose their farmland and related resources to sustain their livelihood.

2.1.5. Economic Growth Strategy of Ethiopia and Rural Livelihood

Following the change of government in 1991, Ethiopia adopted a structural adjustment program and began to implement extensive reforms to transform the previous command economy to a market-oriented one. In the mid-1990s, government announced its development vision, known as Agricultural Development Led Industrialization (ADLI). The key concept underlying ADLI is an export-led development strategy aimed at promoting economic growth in Ethiopia through coordinating agricultural and industrial development. Thus, ADLI acknowledges the rural growth linkage approach. This approach appreciates the symbiotic relationship for the mutual benefit between the industry and main stay of rural people livelihood (Gebreeyesus and Iizuka, 2010).

Broadly, there are two competing approaches in the choices of an industrial site. These are normative approach and structural approach. The normative approach argues that the existence of cheap factor price determines the choices of a given area as an industrial site. The later approach seems to imply the involvement of the states in deciding the location of industries with the objective of locality development (Chapman and Waker, 1992).

For instance, in Ethiopia, the government enabling role and availability of infrastructures plays a role for establishment and expansion of floriculture industries. Furthermore, government incentive provision, natural resource endowment and proximity of production site to the EU market with lower transport costs makes the country attractive for growing high-quality flowers in diverse varieties of highlands. Primarily, the reason behind the government support and incentive provision for floriculture sector was to creating employment opportunities for rural poor and generating foreign exchange earnings (Melese and Helmsing, 2010).

Consequently, as to the NBE 2007/08 annual report, cut flowers, pulses, live animals, and oil seeds are among the high performers with (444%), (101%), (73%) and (25%) annual growth respectively. These have significantly contributing to increased tax revenue and thereby strengthen the economic basis of public expenditure on health, education and infrastructure (Gebreyesus and Izuka, 2010). However, its positive contribution, the growth of some industries might have adverse effects that are working against the welfare of the community. For instance, positive aspects of the floriculture industries have their own negative counterparts (Bedada and Samson, 2011). Employing the young men from the farm household has its own negative implication on the household food sufficiency, educational status of the Young and sometimes it adds burden up on elders and women to care for children and for households as a whole.

Moreover, since the wage obtained from the employment is minimal, the employees could not subsidize their families. The other issue is also dislocation of local community from "their farm land" for the investment in the sector. However, for the rural community land is not only an economic asset but also a precursor to pursue different livelihood strategies (Hagdom, 2003). Thus, priority should be given to link different sectors of the economy to benefit the rural poor by generating employment opportunity and satisfying of their basic needs as it does in newly industrialized countries.

2.1.6. Rural Livelihood and Industry: Some Experience of Developing Countries

The newly industrialized countries of Asia (Hong Kong, Singapore, Taiwan and South Korea) are often taken as example by the World Bank and the third world countries to emulate their footstep towards industrialization. They have managed to raise the living standard of their citizen through industrialization despite the debated as to the exact industrial development path of the newly industrialized countries. However, the historical evidence of these fast developing Asian countries show that, their progress came because of the effective intersectoral linkage. Colin (1990) asserted that those countries, which were known as a land of famine in the first and early second half of the 20th century, particularly china and India were able to take advantage of the spillover effect of agriculture industry inter linkages. As a result, they have registered fast economic growth and able to enhance the living standard of their citizen (Colin, 1990).

Thus, sustainable development and poverty reduction require the development of productive sectors in order to create jobs, generate income and so reduce poverty. In almost all developing countries including China, private enterprises are the main source of new jobs. Attempts to create jobs by governments and state-owned enterprises have often turned out to be unsustainable. In most developing countries, the private sector produces the lion's share of the country's output and gross domestic product, and generates a large portion of the government tax revenues necessary for funding public health care, education, social safety nets, and so on (Fukunish et al., 2006).

The experience and practices of China in creating inter-linkage between the industrial sectors and rural households can share the best practice for Ethiopian industrial sector including floriculture industries. In China, the rapid industrial development in 1990s has transformed the lives of the rural people. As a result, today majority of the rural Chinese have sufficient wealth and no fear of seasonal fluctuation of farming. This attributes the success of China's industrialization through coordinated effort of different actors ranging from local government to the policy convenience to bring the drastic change. For instance, in the Wenzhou village of China, there was a close integration between the private industries and the entire village to the extent that an individual household perform specialized task necessary in the process of pipeline distribution, marketing and producing specific inputs (Oi, 1999).

Therefore, as explained above, in China, local government has played vital role in facilitating the existence of effective linkage between the industries and rural people by making outright

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contract. Consequently, the rural people nearby industries have made a symbiotic relationship and thereby the industries become one of the mainstays for the rural people. Hence, the rural people in Chinese have benefited from the industrial development at their vicinity not merely from employment in the factories, rather more from the effective integration.

2.1.7. Land use and Investment Policy: Reflection on the Expansion of Floriculture Industries

As per the federal constitution, land policy and laws are set at the Federal level and the mandate to administer land is given to the respective regions in accordance with the policies and laws issued at the Federal level. Consequently, Regional States have issued their own land policies and implementation, legislation and directives in line with those set at the federal level. Therefore, the respective investment authorities of the Regional States usually have the right to undertake rural land allocations and transfer for investment purposes.

Specifically, land held by government has been made available for investors near to Addis Ababa, at very cheap prices of under 20 USD per annum per hector. Land lease payments were fixed over an extended period of time, on average 21.5 years. This helped to reduce the financial burden for investors and made entry easier. The average tenure period is 27.5 years and the maximum 90 years. This would not have been possible without the subsidy of government (Imeru, 2010).

Moreover, the investment policy of Ethiopia has undergone amendments and regulation to create conducive environment for both domestic and foreign investors to foster development. For instance, investment proclamation 280/2002 article 4 of the proclamation state that the objectives of investment policy of Ethiopia are designed to improve the living standard of peoples of Ethiopia through the realization of sustainable economic and social development. Thus, policies are aimed to maintaining health labor force for better work environment, promoting a sustainable development and thereby satisfying the demand of rural population on food products, developing exports of agricultural products and maximizing extraction of foreign currency (MoARD, 2010).

2.1.8. Floriculture Industry in Ethiopia

In recent decades, the global demand for cut flowers has grown considerably. Growth and diversification value of cut flowers in global market has attracted increasing numbers of developing countries to the global fresh flower trade. These reasons seem to make Ethiopia come in to the picture of this business. For instance, even if floriculture development in Ethiopia blooming in recent years, it started for commercial purpose in 1980/81, which is now thirty years ago. The first fresh cut flowers production was commenced in 1981 /82 crop season. The *Derg* regime had established horticulture development corporations where government was responsible for regulation, production and marketing of horticultural products including flowers. During that time the production and export of cut flowers in Ethiopia was not well planned and aiming of profit seeking but only for foreign exchange earnings (Ethiopian Horticultural Strategy, 2007).

However, post 1991, the Ethiopian government saw export oriented, high value agricultural products like floriculture as a priority, to implement its ADLI. As a result, fiscal incentives have been created to enabling private sector development including floriculture sector. The promotion scheme for export includes 100% exemption from duties on imports of capital goods and raw materials necessary for the production of export goods, exemption from export tax and tax on transfer of shares of assets, and tax holidays on profits for 5 years (Chala, 2010).

Similarly, government has also provided long-term credit on very generous terms through the Development Bank of Ethiopia. Investors can borrow up to 70% with no collateral requirement and low interest rates that do not vary much. Compared to other major horticultural producer and exporter countries in Africa, government support scheme in Ethiopia is clearly very favorable for the investors. For instance, the fixed interest rate (around 7.5%) is very low compared to many other African countries' interest rates that are generally around 15%. The real interest rate that Ethiopian exporters have been required to pay since 2005 is zero when calculated against the growing rate of inflation in Ethiopia. This translates into a pure resource transfer (subsidy) to exporters (Gebreeyesus and Iizuka, 2010).

Consequently, since 2006, Ethiopia was the second largest exporter of large roses to the Dutch auctions (after Kenya) and the third largest supplier for small roses (after Kenya and Uganda). Currently, more than 100 private firms are involved in cut-flower production and export operations. Moreover, in the three years up to 2007, both export volume and earnings

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showed more than fivefold growth (see Table: 1), and this made the flower sixth largest exportable commodity after coffee, oilseeds, chat, leather and live animals (Chala, 2010).

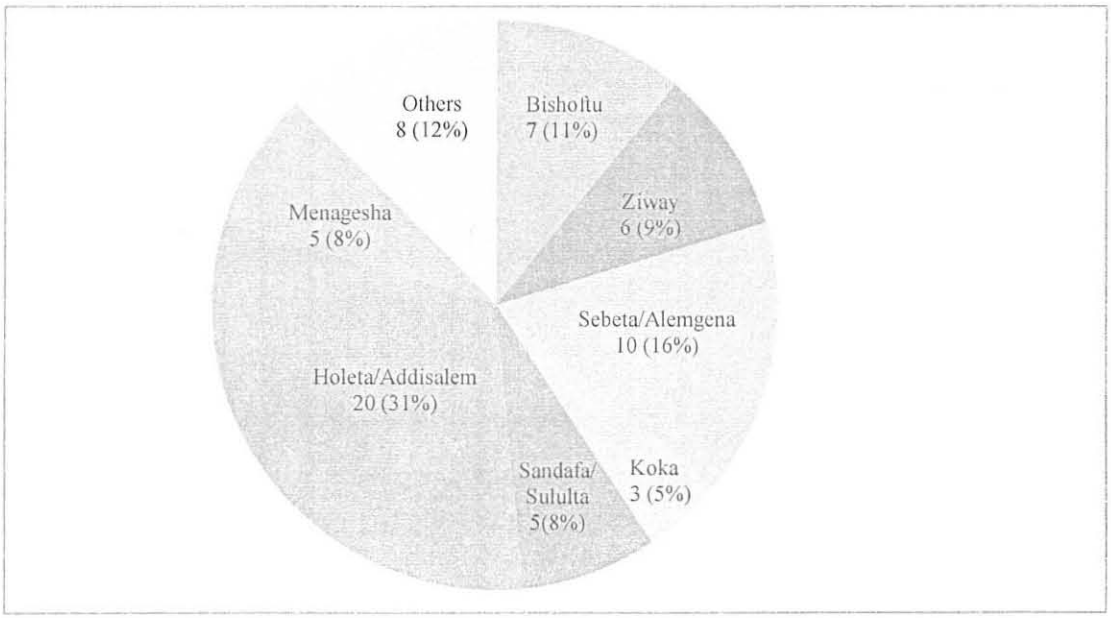
Table 1: The Development of Floriculture industry in Ethiopia

Years	Number of farms	Cultivated area (ha)	Number of Exported stems	Export value (US$)
2001/02	-	-	-	305,000
2002/03	-	-	16,000,000	2,900,000
2003/04	-	-	32,000,000	5,500,000
2004/05	30	150	83,000,000	12,700,000
2005/06	69	345	186,000,000	22,900,000
2006/07	70	801.6	478,144,926	63,601,220

Source: Ministry of Trade & Industry (2007)

Concentration of flower production areas are mainly Upper Awash valley, around Lake Ziway and vicinity towns of Holleta, Ziway, Sebeta, Bishoftu and Addis Alem with an altitude elevated about 2000 meters. These areas are the most suitable place due to suitable weather and all the infrastructures like roads, electricity, telecommunication and water have been availed for the investors in floriculture industries (Melese and Helmsing, 2010: 45).

Figure 1: Major concentration sites of flower farms in Ethiopia



Source: Melese and Helmsing (2010)

Therefore, in Ethiopia, the rapid growth of floriculture is due to factors like suitable climate and natural resources, high level of support by the government through favorable investment laws and incentives, proximity of production site to the global market, efficiency of the transport system and availability of abundant and cheap labor (Ethiopian Horticultural Strategy, 2007).

2.1.9. Floriculture Industry and Livelihoods: An Overview

Globalization (trade liberalization) policies are generating food insecurity through a number of mechanisms: a transfer of resources from peasants to the industry or a shift of land use from the production of stable food crops to luxury or non-food cash crops such as flower for exports. The conventional approach to food security has two factors, demanding for food grants and supply of the same. Demand for food depends on the purchasing power that is determined by employment and wage earning capacity of the mass. The allocation of land and other resources towards food crops explains the physical access to food grains and this is determinant of its supply condition. Thus, expansion of areas under commercial floriculture like open field rose cultivation pose a threat of food security as it will result in the diversion of land from food production (Shiva and Bedi, 2002:24)

Likewise, unsustainable use of land by corporate floriculture leads to irreversible loss of productive land in the long run. For instance, the real threat of food security in a country like India, Kenya, and other production countries comes from the magnitude of accumulated but unattended 'ecological costs' of hi-tech floriculture in the long run and the extent of diversion of scarce natural resources and capital towards this end in the short run (Schutter, 2009).

However, now days the government makes land available to prospective investors rather than food security concerns. Thus, large-scale land acquisition by floriculture industries result in displacement as its demand focuses on higher value lands (e.g. those with greater irrigation potential and proximity to markets). Consequently, food supply problems and uncertainties are created (Bedada and Eshetu, 2011). This could negatively affect poor rural households often dependent on natural resources to feed themselves and their family members.

2.1.9.1. Impacts of Floriculture Industries

This section explains the livelihood impact of the floriculture industry in relation to three dimensions. These are, economic costs that include labor issue like health and workers safety condition, land acquisition related problems and the environmental or ecological factors and their impacts.

2.1.9.1.1. Economic Impacts: Labour costs

One of the issues that floriculture industries worldwide commonly blamed is labourers associated unsafe working conditions and massive usage of chemical in the industry. International environmental and workers advocacy groups charge the floriculture industry as it exposed laborers to dangerous pesticides due to failing to provide health safeguards. Similarly, in most developing countries, floriculture industry employees also claimed that their wages did not meet their basic needs (defined by workers as his or her dependents on their families for feeding, clothing and housing) and the economic gain of the sector still come at the cost to workers and environmental health problems (Bedada and Eshetu, 2011).

In Colombia, the floriculture industries wage paid for causal laborers are remained 200% below the poverty line for family (Frank and Cruz, 2001). In Ecuador, at least two people should be hold jobs from the same home to covers the families' most basic needs, one-person salary only covers 47% of the basic family food basket (Norma and Siliva, 2005). In Uganda, at least double payment of the average wage expected to meet their basic needs (UWEA, 2006). Consequently, the employees could not subsidize their family.

Moreover, because of its intensive nature, floriculture industry is known to use wide range of chemicals, including fertilizers, insecticides, fungicides, and plant growth regulation, that has potential harm on human and animal health. The Chemical damages are aggravated due to improper handling and application of chemicals in the farms (Frank and Cruz, 2001).

Often there is a concern about pesticides because they can cause cancer, birth defects, reproductive illness and neurological diseases in humans. Workers are exposed to these pesticides in variety of ways. For instance, when workers transplant, prune and pack flowers without protective grab they may absorb pesticides through their skin. Moreover, dusting, spraying, and other application of chemicals in enclosed spaces workers inhale pesticides (David 2002 in Malfia, 2009).

A study of fern and flower workers in Costa Rica found that over 50% of respondents had at least one symptom of pesticide poisoning, such as headache, dizziness, nausea, diarrhea, skin eruptions or fainting. In Ecuador, nearly 60% of workers surveyed showed poisoning symptoms, including headaches, dizziness, hand-trembling and blurred vision (ibid).

A Danish study of Colombian flower workers concluded that female workers had reduced ability to become pregnant and the sperm concentrations were 40% lower in male workers with long-term exposure (more than 10 years). Concerning maternity leave, in Ecuador, some companies do not hire pregnant workers. Women must show a medical certificate proving that they are not pregnant. If some women get pregnant after she has been hired, she must substitute to work in her place during her maternity leave. As a result, women take a very short maternity leave and return to work. Other companies simply fire women workers who become pregnant (Norma and Siliva, 2005).

The Ugandan workers Education Association (UWEA) (2006) study explained that more than two third of the workers covered by the study were found to be casual laborers, who do not have any employment contract. They were most exposed to potential dismissal (in the case of market decline or presumed poor performance of the farm), often without mandatory warnings. In several instances, seasonal and causal workers said they worried about becoming pregnant, sick or injured because they risked losing their jobs. This insecurity had specific gender implications related in some cases as women's exclude from benefits like maternity leave and sick pay. Particularly, job insecurity is arising from mistrust of management and lack of adequate trade union protection from unfair dismissal (Catherine D.et al., 2003).

2.1.9.1.2. Ecological Impacts

Environmentalists are raising many concerns in relation to the expansion of floriculture industries. These are mainly the use of pesticides and chemical fertilizers, disposal of waste materials, and protection of water bodies. According to environmentalists, the industry uses too much pesticides and chemical fertilizers, which damage the environment. They believe that too much pesticide and excessive chemicals are killing useful organisms in the soil. Besides, it also causes adverse impact on the soil texture, composition and soil micro flora, which intern severely constrain the productive capacity of the soil (Getu, 2009).

Moreover, contamination of ground water due to seepage of chemicals ultimately affects availability and quality of drinking water. Flower farms mostly use hazardous chemicals in

the form of fertilizers or pesticides that can be easily washed-off from the ground and enter in to water bodies. For instance, excessive usage of inorganic chemicals in the farms later produce Nitrate and soon after it will get into water bodies and can lead to the death of economically important aquatic life (Chala, 2009).

Similarly, there is also a water shortage in the towns and villages areas of floriculture industries. This is because flower production requires water in large quantities. The consumption of water for the production of cut flower reached 60,000 litter/ ha/ day (USEPA, 1990). Thus, societies who depend on rivers and lakes for their livelihood might become frustrated and this may lead them to migrate to another place for a better water resource. For instance, anglers and local residents living on the shores of Lake Naivasha in Kenya have recently made alarming announcements that the water levels of the Lake have been dropping, fish stocks are declining and chemicals are polluting the lake. The blame for this situation has been raised because approximately 30 large flower farms situated around the lake (APF, 2003 in Fatima 2007).

In addition, air pollution caused by flower industry has been taken as sources of conflict with the local communities as a major environmental impact. The major contributors for the issue are excessive usage of pesticides, poor or misguided fertilizer application and thus are potentially leading to adverse effects on the safety and security of the society. Usually, fertilizers contain nitrogen, and misused fertilizer can cause an environmental damage when it finds a way to contaminate itself into water or air since it decrease oxygen content. UWEA (2006) stated that in Uganda the neighboring communities of flower farms complain of chemical smell when the spray going on at the farm industries. It was also reported that bees necessary for pollination have disappeared due to spraying and thereby poor yields in the surrounding areas (ibid).

2.1.9.1.3. Land Acquisition Related Impacts

In Ethiopia, loss of access to land and related resources in the course of large-scale land acquisition by floriculture industries reduce means to feed local households and thereby severely affect right to an adequate standard of living including food and housing, because of unfair compensation and rehabilitation provisions (Bedada and Eshetu, 2011).

Investment on individual and communal land entails considerable risks for previous users. The loss of access to communal grazing land in smallholder areas may not cause displacement but will erode local livelihoods, particularly the poorest as they use it for

grazing; livestock transit routes; collection of fuel wood, biomass, wild fruits, medicinal plants and natural products; and access to water sources. However, currently, most of local common grazing lands are covered by greenhouses but it was used for livestock grazing, honey production, and surrounded by woods that were convenient to collect firewood and other economic sidelines (Lavers, 2011).

Decision to allocate communal land for floriculture industry ignores the valuable of communal land in local livelihoods. Communal land is unregistered and is considered by government officials to be of a government, not community resources. Consequently, investors pay no compensation for communal land but make informal promises that they will contribute to communities by building schools or clinics, and providing employment. However, investors could not provide local residents with secure opportunities to sustain their livelihood status (ibid).

Generally, transferring of land from accessed to local community to floriculture industries, which is market-based, has a disproportionate effect on rural poor specifically peasant farmers, as they depend on wider diversity of natural resources to be self-sufficient in crop production and other related activities. As a result, the only remaining value for displaced local farmers due to floriculture is being wage laborers in the flower farms, or move away to towns or other areas.

2.1.10. Displacement induced problems in Ethiopia

Recent approaches to sustainable local and regional development seek to integrate economic, environmental and social outcomes together rather than compromise through trade-offs and balances. Moreover, promoting sustainable development has become one of the most widely used sought terms in the realm of economic growth, environmental protection and socially just development. In this regard, sustainable development means improving the quality of human life while living with the carrying capacity of supporting ecosystem (Reed, 1996).

Since 1970, sustainable development has become a dominant paradigm guiding development actions with a view to bringing positive change to people's lives. It is explained as a beneficial process that carries the idea of economic betterment, greater human dignity, security, justice and equity. Nevertheless, many 'development' programs implemented by the governments are often conflict with the interests of local people in many countries. Thus, the path to positive change has not been found easily over the past two decades or so (Robertson, 1994; Zewdu, 2002). In some countries, there are series resource economic as well as social

impoverishments due to development practices. However, the New Approaches of Community Economic Development (CED) note that not all-local economic development is successful unless it fulfills the following basic criteria:

- First, development should provided benefits to residents like housing services, jobs or business opportunities, public goods or increased tax revenues that can be used to fund public goods. Benefits should be accessible to residents.
- Second, development should involve beneficial linkage or synergies with other local activities or institutions. Public infrastructures and social service investments can link with each other and with private investments. A job-training program should be linked to local employers.
- Third, development requires reduced negative environmental externalities within the community, such as pollution, resource degradation, water depletion and waste disposal of the industries.
- Fourth, development project reinforces or, at least does not undermine a stable independent community structure (Simon, 2001).

In Ethiopia, various development projects have directly and or indirectly disrupted the lives of subsistence farmers, pastoralists, anglers and people living downstream and so on. Particularly, these projects forced rural people to move from their home areas and lose their properties, jobs and separated from family members (Getachew, 2004). For instance, irrigation farm schemes have both positively and negatively affects the economic base of Afar people, their way of lives, their right of tenure and societal relations and their environment irreversibly. Perhaps the most important adverse consequence of this development on the Affar has been the alienation of the dry season pastures and lands up on which they were heavily dependent for their livelihoods (ibid).

As Melese, (2009) asserted, in *wayto* valley the presence of large scale commercial farms has resulted in land alienation and increased pressure on natural resources, notably trees, pasture, wildlife and water resources that adversely affected local resource use regulation mechanisms and collective actions. Besides, the use of pesticides has also endangered honey production and other livelihoods activities. These problems suggest that sustainability of the project could not consider the alternatives sources of local people livelihood rather than focusing on its employment and foreign currency generating capacity (Melese, 2009).

Moreover, as Feleke (1999) asserted, the urban periphery people of Yeka Lafto sub-city were affected by the real estate development projects in their vicinity. For example, he stated that the project affected livelihood diversification, access to common property resources, food security, social and cultural articulation of local residents. Similarly, Fayera (2005) also noted that, the expansion of urbanization displace farming community and limit their access to assets or capital, that used to diversify their livelihood strategies. Specifically, livelihood diversification of rural people is which is dependent on natural capital mainly land and is negatively affected. Thus, as urban areas expanded to the periphery and encroaches the rural farmlands are highly reduced and thereby affect the means of livelihoods of the rural community (Feleke, 1999; Fayera, 2005).

Furthermore, Kibrab (2000) confirm that, common property resources ''play significant roles in the livelihoods of the rural poor; consequently their loss can cause the loss of income, biomass, raw materials, and way of life". Consequently, it causes the sudden decline of livestock, wild plants, fishes, and honey and this worsened food insecurity status of displaced households.

Generally, it explained above, in Ethiopia a number of households have been displaced from their familiar environments due to 'development' projects such as the construction of dams/roads, the protection of national parks, the development and expansion of urban centers and currently the expansion of the floriculture industries. The fact that country needs such projects is to create employment opportunities, provide improved services to the public, conserve natural resources, and promote socio-economic development. Nevertheless, as explained the effect is brought through times across different sections of societies. This is mainly due to improper handling of social, environmental as well as economic cost analysis.

The other most important concern is that, the extent and depth engagement of the projects with directly affected people in its planning, approval and establishment progress. Specifically, in locality development approach, local people should have the right to say "yes" or "no" to the proposed developments on their farmlands. Thus, prior establishment of the project making consent with local community and other relevant stakeholders helps or needs to respect people's cultures, customary systems, practices and their mutual benefits. Hence, concerned government authority is responsible for making interactive negotiation with people and be sure that whether grievance, redress and mitigation are in place.

2.1.11. Concepts of Expropriation

Currently, Ethiopia has a federal structure that allows considerable autonomy to the regional states and decentralized decision-making up to the lowest level in political, economic and social spheres including for administration of land. Thus, Regional states have the mandate to administer land subject to the general policies and laws issued at the Federal level. Decision making regarding to land is not only involves the highest levels of regional government but also involves active engagement of lower levels such as zones, woredas (districts) and peasant associations in the respective regional states.

The Federal and Regional Constitutions as well as the land administration laws issued by the Federal and Regional States provide that peasants and pastoralists have the right to acquire use rights over rural land free of charge and without time limit. For instance, rural land administration and land use proclamation 456/2005 is designed to increase subjective tenure security of peasants and emphasizes the importance of land measurement, and certification of holding right.

However, taking private land against the wish of the owner of the property are public use, public benefit, public good, public interest or public purpose. Hence, the law tries to minimize the power of the state of taking private property by putting the necessity of 'public purpose' as a limitation. Public purpose as a limitation on the sovereign right of expropriation is well recognized in the current Ethiopian constitution Article 40 (8) and it is prescribes as:

> Without prejudice to the right to private property, the government may expropriate private property for public purposes subject to payment in advance of compensation commensurate to the value of the property.

The basic standard that may serve to identify the types of activities, which lie on public purpose, is the 'direct or indirect benefit' it gives to society. The Proclamation no. 401/2004, under Article 2/2 listed the kinds of works that are considered as beneficial to the public as power generating plants, highways, airports, dams, railways, fuel depots, water and sewerage facilities, telephone and electrical works and other related activities were listed as public purpose activities. These investments or projects may be made by public entities, private investors, cooperative associations, or by federal or regional governments (Proclamation No.455/2005 Article 3(1). However, "Public purpose" in the present proclamation is understood in its wider sense as providing a direct or indirect benefit to the society. Thus, in the federal constitution and all the subordinate land legislations, guarantee an advance

payment of "commensurate" or "appropriate" amount of compensation in the event of expropriation.

2.1.11.1. Compensation and expropriation

As it is explained above, the Ethiopian Constitution secures property right, among other things, by prohibiting arbitrary taking and evictions from one's land holding. To this effect, it stipulates that a commensurate amount of compensation should be paid to expropriated real property. A person who loses his holding rights on land forever because of the expropriation process is entitled to monetary compensation for his loss. Besides, he/she has to be paid for the property owned on his the land and the improvements he brought on the land. Concerning this proclamation has explained as follows:

> In addition to the compensation, a rural landholder whose land holding has been permanently expropriated shall payable for property and improvements made on the land. The displacement compensation shall be equivalent to ten times the average annual income he/she secured during the five years preceding the expropriation of the land Article 8(1) of Proc. 455/2005, Art.16 (3) of Regulation 137/2007).

This is mostly happens when parcels of land are required for big projects like dams, schools, hydropower stations, military camps, airports, private investments, and so on. Thus, constitution as well as other laws supports the payment of commensurate or appropriate compensation. In rural areas, the value of the land expropriated is based on the previous five years' average annual income of the farmer. This annual income shall be multiplied by ten and that is the value of the land to be given as compensation. The problem of this system is that it does not adequately compensate the farmer's loss. The farmer has a lifetime right in the land with lifelong income and the right to pass it to the next generations. The argument is that ten years annual income will not adequately compensate the loss of all the rights mentioned above. Moreover, the valuation system does not take the present market value of yield to calculate the future loss; rather, it goes back to the past five years, which are irrelevant to the present or future value. Experience of annual increases of inflation in the country shows that the prices of goods, including crops, are increasing at an alarming rate and this makes the amount of compensation paid insufficient (Daniel, 2009).

The other problem in this area is the non-existence of real property expert valuators. Property is simply appraised by civil engineers, agriculturalists, and members of the administrative organ, all of whom lack proper education and experience in valuation systems. The two most

common organs, which have close interests in urban properties, are the municipalities and banks use civil engineers to assess the value of a real property. As per the federal laws, in rural areas, in order to estimate the value of crops, trees, and the bare land itself valuation shall be carried out by valuation committee composed of five persons that are from appointed kebeles or *woreda* chairpersons, agriculturalists, and elders of the local people (Ibid).

However, as Imeru (2011:6) asserted, the current practice of expropriation and compensation procedures in the four regions (Amhara, Tigrai, and Oromia and SNNP regions) is far from consistent with what is envisaged in the Federal laws. Furthermore, he asserted that the process of property valuation and determination of compensation amount is not transparent and compensation for property is not paid properly or not at all.

2.1.11.2. Bureaucratic Factors

In Ethiopia, application for an investment license may be made at the Federal or Regional State levels depending on the identity of the investor or place of investment. According to the Investment Proclamation No.280/2002, the Federal Ethiopian Investment Authority has the mandate to issue investment permit for both foreign and domestic investors. All other investments apart from those vested in the Ethiopian Investment Authority are subject to the jurisdiction of the respective Regional Investment Agencies. Examining and approving an investment application both by federal and regional office could be divided in to two components, namely, issuance of investment license and allocation of land. Issuing investment licenses usually takes a short period of time ranging from a few days to a month once the investors fulfills the information requirements.

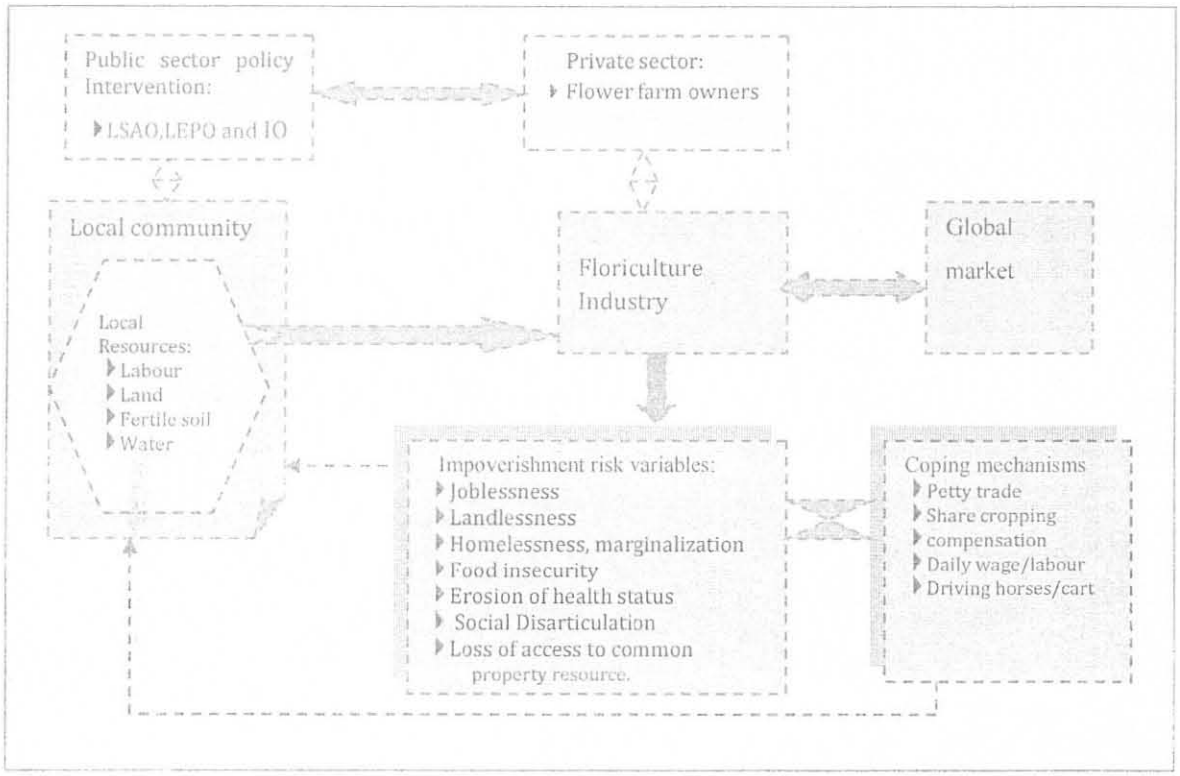
Similarly, at the regional level, the respective investment authorities of the Regional States usually undertake rural land allocations and transfers for investment purposes. Though other agencies such as environmental protection organs and agricultural bureaus have relevant primary mandates, however, they are seldom involved in the actual allocation and transfer of rural land. The problems mostly arise in relation to the mandates of the investment authorities, land administration authorities, environmental agencies, and agricultural bureaus. For instance, while the environmental laws require an environmental impact assessment prior to land allocation, investment laws do not anticipate such a requirement. Investment authorities are thus allocating and transferring land often without the necessary environmental impact assessments even though, environmental laws and procedures are put

in place and require assessments and monitoring of safeguards to be made prior to approval and allocation of land for large-scale agricultural investments (Imeru, 2011).

Therefore, lack of concern and cooperation among stakeholders regarding land allocation, for large-scale agricultural investments resulted in virtual absence of benefit sharing mechanisms as well as environmental and social safeguards of the community (Abbinika, 2012).

2.2. Conceptual Framework

The determinant factors for the development of floriculture industry in Ethiopia are public and private sector, local community and condition of global market. Most importantly, the mutual relation between the industry and local community significantly determines both sustainability of the industry and livelihood of the people. On top of this, study examined the relationships between local community and floriculture industry to assess the impact of the sector on the main livelihood activities of the local people.



Source: Adopted by the researcher from Cernea (1998)

As demonstrated above, the multiple relationships of the different factors or variables would be employed to assess the impact of floriculture industry on the livelihood of the local people. Furthermore, the explanations for each of the important components in the conceptual diagram are presented below:

Government policy interventions

Government policy interventions are manifested in the form of new investment policy formulation. The government policy tools are different proclamations and proper administrations, directives, rule, and regulations. In ADLI, the government of Ethiopian is prioritizing sectoral development strategy. One of the primary agenda of development

strategy is expansions of private owned floriculture industry. Thus, the two important mechanisms by which government could engage and promote the private sectors are creating a favorable environment and providing direct support (MoFED, 2006).

Resources

Human capital and natural resources that is important for floriculture development and local community livelihood bases. Natural resources include suitable climatic condition, good soil, availability of water resources free of pollution and land that are apt for the investment of floriculture industry (Abbinika, 2012).

Local community

Local communities are household groups and individuals residents in a specific area and differentiated by class (landholders, landless, sharecroppers, etc), gender (many women and men), and age (many elders, young and children). Each of these can be affected differently by the investment process of the industry (Bedada and Eshetu, 2011:25).

Floriculture industry

Floriculture industry is production of flowers both in greenhouse and out of greenhouse by the help of modern technology for market. Ornamental type of flower production and distribution requires intensive new technology (Japanese Embassy, 2008).

Global Market

Global market is standardized place accepted by recognized body and determinant factors in rewarding the firm's investment and factor cost of productions. Therefore, it is the key element for investment decisions making on the floriculture industry (Ibid).

Relation between local community and flower Industry

Ellis (2000) is skeptical as to the effectiveness of linkage between local community and industries for the fact that in developing countries industries are locating in rural areas not necessarily to be linked with the community, rather for merely profit maximization. Likewise, Zelalem (2007) asserted that flower farms locating in rural areas have poor participation in local community development though it intensively uses local community resources for its production purpose. Furthermore, as Bedada and Samuel (2011) confirmed, floriculture industry has displaced local households from their farmland and thereby affected their livelihood diversification. Consequently, when people move to a new place they face various challenges due to the change in livelihood systems. For instance, specific ecological,

social, economic and cultural situations in which they have relocated require diverse adaptive strategies. Often this adjustment is difficult and carries multiple risks. As a result, Cernea (1996) has proposed an 'Impoverishment Risks and Reconstruction Model' (IRR) to help in the analysis and prediction of risks in relation to forced displacement. This model captures not only economic but also social and cultural impoverishment, reflecting the fact that displaced people lose natural capital, man-made capital, human capital and social capital. In such way, according to IRR model, development-induced displacement leads to eight forms of socio-economic risks, which are concisely defined below:

I. **Landlessness**: Expropriation of land needed for the project, removes the main foundation on which many people build productive systems, commercial activities and livelihoods. This is the main form of de-capitalization and pauperization of the people who are displaced.

II. **Joblessness**: Loss of wage employment occurs both in rural and urban displacement. People losing jobs may be landless agricultural laborers, service workers, or artisans. The unemployment or underemployment among resettles may linger long after physical relocation. Creating new jobs for them is difficult and requires substantial investment, new creative approaches, and relying more on sharing project benefits.

III. **Homelessness**: Loss of housing and shelter may be only temporary for many people, but it is in a broader cultural sense, loss of cohesion and mutual help patterns of neighboring households of the same kinship group and group's cultural space.

IV. **Marginalization**: Marginalization occurs when relocated families lose economic power and slide down towards lesser socio-economic positions: middle-income farm-households become small fall below poverty thresholds. Economic marginalization is often accompanied by social and psychological marginalization, expressed in a drop in social status, in resettlers' loss of confidence in themselves and in society.

V. **Food Insecurity:** Forced displacement diminishes self-sufficiency, dismantles local arrangements for food supply, and thus increases the risk that people will fall into chronic food insecurity. This is defined as calorie-protein intake levels below the minimum necessary for normal growth and work.

VI. **Increased Morbidity and Mortality**: The vulnerability of the poorest people to illness is increased by relocation, as it tends increased stress, psychological traumas, and the outbreak. Serious decreases in health levels result from unsafe water supply and sewage

systems that proliferate epidemic infections, diarrhea, dysentery, etc., and may lead to mortality rates, particularly among children and the elderly.

VII. **Loss of Access to Common Property**: Poor farmers relocated loose access to the common property assets (loss of access to forests, water bodies, grazing lands, etc.) and this result in significant deterioration in income and their livelihood levels. Usually this is overlooked and remains uncompensated by the government.

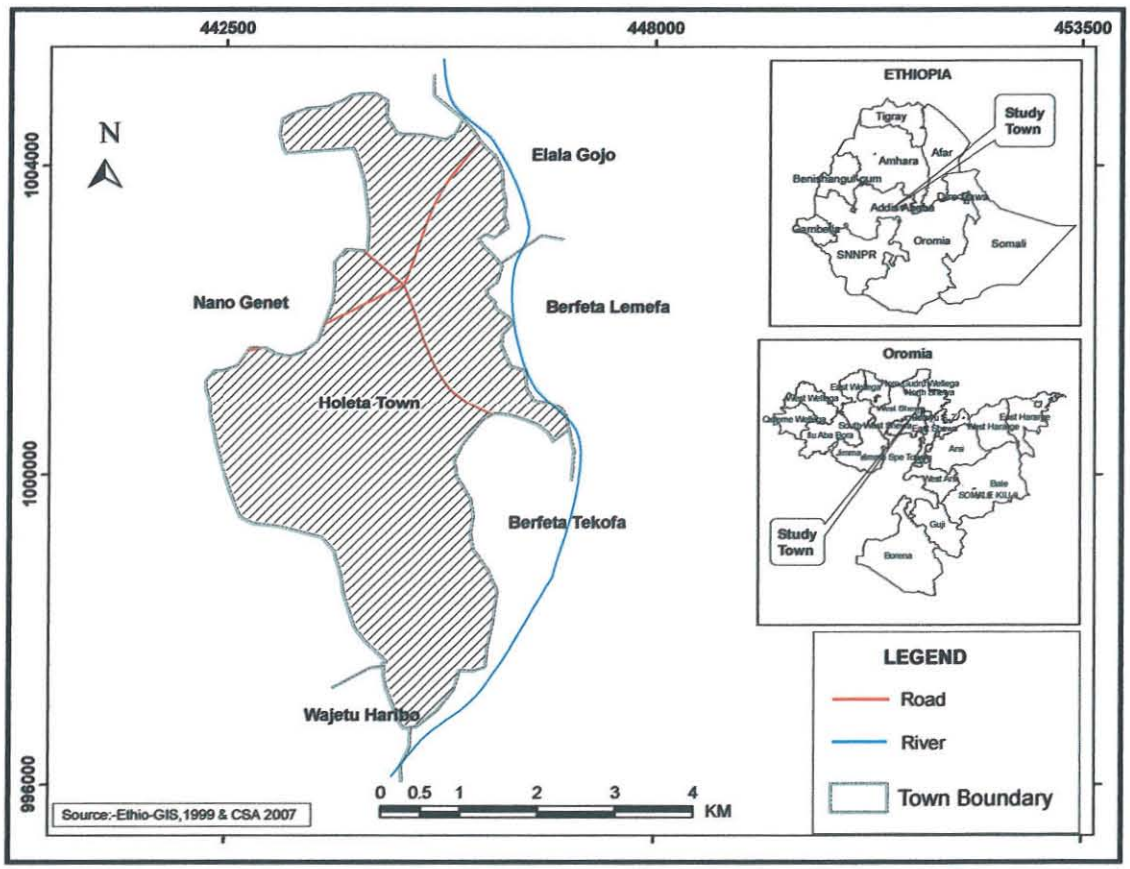
VIII. **Social Disintegration**: The dismantling of community structures and social organization, the dispersation of informal and formal networks, local associations, etc., is loss of social capital. Such disarticulation undermines livelihoods in ways not recognized and not measured by concerned stakeholders, and results in disempowering displaced people.

CHAPTER THREE

3.1. Description of the Study Area

This section introduces the research area physical and socio-economic features in brief. The study was conducted in Holeta town and surrounding area, which is relatively, one of the oldest areas in starting practice of floriculture production in the country. It is the main town of Wolmera district and located 30 km to the west of Addis Ababa. The geographical location of the area is at 9^0 30' N and 38^0 30' E at an altitude of 2500 meter above sea level (HARC, 2003). Administratively, Holeta town is found in special zone surrounding Addis Ababa, Wolmera District.

Figure 2: Map of the study area



Source: Modified from CSA (2007)

Regarding climate, Holeta town and its surrounding area receives a mean annual rainfall of 1060mm with an average relative humidity of 58 percent and rainfall distribution is bimodal namely spring (*balg*) and summer (*mehare*). The intensity of rainfall is medium during spring and high during summer. The mean annual temperature is 14 °c in which the highest

temperature is during May (23.8 ^{0}c) and December (1.7 ^{0}c) is the coldest month. Concerning vegetation cover, different literatures have indicated that coniferous trees such as *podocarpus falcate* and *juniperus procera* have dominated the natural forest around Holeta. However, in the last few years, the indigenous trees are replaced by floriculture industries. Concerning surface water, *Holeta river is one* of the main rivers in the surrounding areas. Besides, the discharge of ground water can also manifest in the form of springs (HTWSO, 2005).

In case of population, the town has total population of 35,845 from which 28, 919 are residents of the town whereas 6,926 are residents of in rural *kebeles* (CSA, 2007). The economic activities of the area population are based on subsistence mixed farming of both rearing animals and crop production. There are many rural and urban households engaged in collecting and selling forest products and grass from plantation and grazing fields and riversides around the study area. In addition, there are also many households engaged in cut-flower farms found in their surrounding areas.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1. Socio- Demographic Background of the Study

Due to scope of the study, the sample units of this thesis are sub divided in to two groups. These are displaced farm households and flower farm workers. In such way, independently survey questionnaires were prepared for each of 42 displaced farm households and 87 workers in flowers respectively. Consequently, based on the survey data the following section illustrates respondents' socio-demographic characteristics concisely.

4.1.1. Age and Sex Composition of Respondents

As it can be seen from survey data, from the total respondents of farm workers about 56 percent of the respondents are female while the rest are male workers. This shows that female workers dominate floriculture industry. This is due to repetitive nature of work requires patience and women are believed to be committed and work neatly. Table-2 of the survey result shows the age composition of both the workers and displaced households. As it can be seen from the table below 76 percent of worker respondents are found between the age ranges of "18 to 25" years old. This is because the industry employs predominantly young segment of population due to the work requires too much physical effort and long hour of work (56 hours per a week). For the displaced households the majority of respondents, which is accounted 43 percent are found the age group of 56 and above.

Table 2: Age composition of Respondents

Age range	Displaced households			Farm workers		
	Frequency	Percent	Total	Frequency	Percent	Total
18-25	-	-	-	66	75.9	75.9
26-35	6	14.0	14.3	20	23.0	23.0
36-45	10	23.3	23.8	1	1.1	1.1
46-55	8	18.6	19.0	-	-	-
56 and above	18	41.9	42.9	-	-	-
Total	42	100.0	100.0	87	100.0	100.0

Source: survey data 2012

4.1.2. Marital Status of Respondents

As shown in Table 3 from the total 87 worker respondents 66.7% of them are single while 2.3% are widowed. However, for the total displaced households the majority of which (76.2) percent are married. For both respondents divorced and widowed are smaller in proportion.

Table 3: Marital Status of Respondents (percentage of respondents)

Marital status of respondents	Farm workers			Displaced households		
	Male	Female	Total	Male	Female	Total
Single	28 73.7	30 61.2	58 66.7	-	-	-
Married	8 21.1	11 23	19 21.8	25 92.6	7 46.7	32 76.2
Divorced	1 2.6	7 14.3	8 9.2	2 7.4	0 .0	2 4.8
Widowed	1 2.6	1 2.0	2 2.3	0 .0	8 53.3	8 19.0
Total	38 100.0	49 100.0	87 100.0	27 100.0	15 100.0	42 100.0

Source: survey data, 2012

4.1.3. Educational Background of the Respondents

For flower farm workers primary school complete respondents dominate the sample units and they accounted 49.4 percent. But, for the displaced households the majorities are illiterate and from the total sample unit they account for 64.3 percent. However, above grade 12 respondents are smaller in proportion for both the workers and displaced household respondents.

Table 4: Educational Background of the Respondents (percent of respondents)

Educational status of Respondents	Farm workers			Displaced households		
	Female	Male	Total	Female	Male	Total
Illiterate	0 0	1 2.6	1 1.1	12 80.0	15 55.6	27 64.3
Read and write	2 4.1	1 2.6	3 3.4	1 6.7	2 7.4	3 7.1
Elementary school	28 57.1	15 39.5	43 49.4	2 13.3	6 22.2	8 19.0
secondary school	15 30.6	18 47.4	33 37.9	0 0	1 3.7	1 2.4
Above grade12	4 8.2	3 7.9	7 8.0	0 0	3 11.1	3 7.1
Total	49 100	38 100	87 100	15 100.0	27 100.0	42 100.0

Source: survey data 2012

4.2. The Impact of Floriculture Expansion

This section presents the impact of flower farm expansion on the livelihood activities. The flower farms expansion in the study area took place in four kebeles of town administrative since 2002/03. Since then, the flower sector has been rapidly expanding due to the suitable agro-ecology, transport facilities and other infrastructure availabilities.

As of the town administrative investment office, there are 20 flower farms cover 757.83 hectares of lands, and this accounts for 13.65 percent of total area of land in the town administrative areas. The expansion of the sector has been carried out on fertile smallholders' farmland and communal land. Consequently, local households affected because of dispossession of farmlands and communal resources on which they base their livelihoods. Specifically, due to the advent of flower farms in the area, 253 local households were displaced from their physical environment (area of residence) and farmlands. Of the total displacees, 122 households in *Burqa Harbu* and *Birbirsa siba kebeles* are displaced from their residence and relocated to suburbs of the town, which is very close to highly concentrated flower farm areas.

In *Sadamo and Galgel kuyu* rural kebeles, local households were also forced to leave their farmlands with a little compensation amount of money. In addition, they lost access and ownership rights over communal resources such as water resources, grazing fields, forest resources, and other suitable ecology. This were done without any contract agreement made among the kebele administration, flower farms owners and individuals who had private pasture and agriculture lands in the expansion areas for their mutual benefits. Accordingly, the subsequent section of this chapter presents different impacts associated with the expansion or intervention of the floriculture industries on the main livelihoods of local residents.

4. 2.1. Conversion of Crop and Grazing lands

The establishment and expansion of floriculture industries are performed in place where there were fertile agricultural lands and communal grazing, forests and wet lands. This situation changed the livelihoods of the local people and reduced the local peoples' diversities of livelihoods. Previously, livestock rearing and cereal production like teff, wheat, beans, chickpeas, and sorghum, barley and haricot beans were the major agricultural crops. In this regard, majority of the farmers had produced enough cereals for both home consumption and local market. However, after both grazing fields and arable land are taken by floriculture industries, the livelihood system of the people has been altered.

Today, as participants of FGD and agriculture office experts have noted, most croplands and public grazing fields have been occupied by flower farms. This has significantly reduced the agricultural production of the local people. One of participants in FGD stressed:

> Previously, we used our land to harvest both for market and home consumption. Now everything we need is from the market. Moreover, following our dispossession of farmlands and communal grazing fields, today, livestock size per household has decreased over time. Even the remaining 1-3 cattle have no enough pasture in the area. Thus, we are forced to move long distance search for critical resources i.e. pasture and water.

The conversion of farmlands and grazing fields in to floriculture production has been affecting the local people by displaced them from their livelihood bases. As agriculture office expert confirmed, especially in *Burqa harbu, Birbirsa siba, Galgelkuyu and sadamo rural kebeles, c*urrently, there are no as such significant agricultural activities due to the conversion of agricultural land in to flower farms. Moreover, as displaced households what is left today are only small areas of unproductive (marginalized) crop and pasture lands with low productivity and carrying capacity. Furthermore, as a researcher personal observation, there is no agricultural land except small plot of land available to few farm households. This is due to large area of land is covered by floriculture industries (see Figure 3).

Figure 3: Small plot of cropland owned by some farmer after flower farm expanding in S*adamo kebele*

Consequently, as the following survey data shows there is statistically significant reduction in average crop production per households.

Table 5: Farm households' mean annual crop production (in quintal)

The difference of mean annual crop production before and after the displacement	Paired Differences					T	df	Sig.(2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
	14.286	9.177	1.416	11.426	17.145	10.089	41	.000

Source: Based on field survey, 2012

As it can be observed from Table 5, the average loss of 14.286 quintals of various kinds of crops produced by households is due to the loss of farmlands, sufficient water and other related resources. Similarly, as can be shown below in Table 6 the average number of livestock per household is decreased from 11.3 before displacement to 2.9 after displacement due to the loss of both private and communal grazing field in the area.

Table 6: Average number of livestocks owned by households before and after displacement

Number of livestocks	Number of households	Minimum Number of livestock	Maximum number of livestock	Mean	Std. Deviation
Before displacement	42	4	30	11.33	7.149
After displacement	42	1	6	2.93	1.237

Source: survey data, 2012

Furthermore, in-depth interviewed displaced household stated the impact of floriculture investment on his livelihood activities as follows:

> I am 55 years old and a father of seven children. Since 2004, these flower investors took my two hectares of land. At that time, I refused to give my land but regional officials warned me as anti-development and took the land by offering me 34,000 ETB. In such way, I and my family were displaced within 15 days from our living environment. Previously, by ploughing this land in average I got 35-50 quintals of various kinds of cereals. Look, this was sufficient for my home consumption and even I was supplying it to local market. Nevertheless, now I lack self-employment opportunity to feed my family. Like me in my village, many farmers gave their farmlands for these floriculture industries nevertheless, the money they offered us did not improve our lives.

Besides, one female-headed household also narrates the impact condition of flower farm expansion in the area as follows:

> I am 48 years old and a mother of five children and widowed. Side by side with crop production, I had two oxen and 14 milk cows from which I produced up to 20 liters of milk per day. However, now due to loss of forage and pasture I sold a number of my livestock and left with only one farm ox and three cows. Before the commencement of flower farms, the income I had been generating from milk cows were 400-600 birr per month and now I lost all this with my farmland. Currently, all our communal and private lands occupied by flower farms and our cattle have no place to search for pasture except concentrated at one place all the days.

Figure 4: Small number of livestock concentrated at one place because of floriculture expansion over grazing fields in Sadamo kebele.

Furthermore, the presence of large numbers of flower farms in the area, has been affecting the water resources through over utilization of both the river and ground water. Consequently, irrigation based vegetable production in the area has been reduced. As household interviews and focus group discussion denoted, before the commencement of the investment in the area the water potential and drainage capacity of irrigation water was high. Besides, as agriculture office expert, the water could travel through local channels up to 5 km across different villages with enough water. The water was also accessible for vegetables producers 3 times within 10 days. Before the coming of flower farms, using sufficient amount of irrigation water, local households had engaged in various vegetable production

activities. However, according to the participants of focus group discussion, today, except some households that are located in the upper streams of Holeta river most of them are given up vegetable production activities. Moreover, one of the farmer household narrates his livelihood situation as follows:

> I am 45 years old and resident of Sadamo kebele and I was vegetable producer. This flower farms took one hectare of my farmland. Previously I used this land to produce vegetables. For instance, I used to grow potato twice a year. In such away, after home consumption I was supplying to local market and generating 6000 ETB. Nevertheless, currently, I remained with only 0.5 hectare of land and because of the loss of sufficient water supply; I have stopped production of vegetables.

Besides, agriculture office expert also confirmed that in the contract agreement flower farms allowed only using ground water resources for their production. However, they are now highly dependent on surface water and competing with the local community for water resources contrary to the agreement they made. This situation has been affecting the local community livelihoods and triggered conflict and competition between vegetable producers and sometimes among themselves. Today, such amount of enough water is not available in the ground, this is because of the flower farm collect water from both the surface and ground sources by preparing large reservoirs up to 100m length, 65m width and 12 to 17 m depth to collect water from underground and surface water sources.

4.2.2. Effects on Apiculture Activities

In many countries, apiculture is one of the supplementary incomes generating scheme and it is used to subsidize households when risk of the crop failure is high (HBRC, 2008). As expert from Holeta bee research center explained, the area was conducive for apiculture activities prior to the coming of flower industry. This is due to favorable weather condition, biodiversity and availability of bee forage from forests, vegetation, crop production, grazing fields, permanent plants, and seasonal flowers and so on. As a result, productivity was good and farmers could collect on average 10 to 20 kilogram of honey per beehive from traditional and transitional (moderate) beehives colonies. This is done twice a year from September to December and January to June. Sometimes, honey collected three times per year in the area but with low productivity between Junes to August.

Today, due to the loss of forage resources and chemical sprays diffuses to the surrounding environment there is ecological disturbance and this has been affecting suitable environment

for bees. This situation has contributed to the disappearance of bee colonies and thereby reduced of apiculture activities. Furthermore, an expert of research center mentioned that before the commencement of flower farms in the area local farmers could provide them bee colonies with 350 ETB per beehives. However, this situation is now almost totally given up.

Both key informants and experts from Holeta bee research centers confirmed that households who were engaged in bee keeping activities has been reduced over time because of ecological change resulted from the coming of flower farms in the area. Even they confirmed that prior to the flower investment farmers could produce two to three times in a year with good production. However, after commencement of the flower farms it is significantly reduced.

4.4.3. Effect on Communal Livelihood Resources

As Lavers (2011) stated, forests and grazing field resources are natural capital on which people can build up their portfolio of livelihoods activities and options for earning a living. In the study area, forests, grazing fields, and water resources were used to support the lives of poor households before the floriculture investment. However, after the coming of flower farms in the area, due to the expansion of the flower farms over such crucial livelihood resources such as forests, grazing fields and water resources, livelihood base of local people has significantly reduced.

For this, especially, the poor women headed households in the area are forced to give up communal resource based livelihood activities. However, after the flower farm investment, some female-headed households are still travelling 4 to 5km in search of grass, firewood, and animal dung for selling and home uses. For instance, the respondents stated that generating income or livelihoods from firewood, animal dung preparation and grass selling was/is better than working in the flower firms. One of the female respondents stated that, today a sack of leaves costs 15-25 ETB but working in flower farms is only earning 10 to 12 ETB with health risks and work burden. Moreover, the following the 43 years old farmer household confirmed the above theme of discussion as,

> I am a father of five and resident of Sadamo Kebele living neighborhood of this flower farms. Previously, Indigenous trees covered these areas, where our women used to collect firewood but now occupied by these greenhouses. Nevertheless, today flower farms left us with nothing. Even if they created employment opportunities for us, they pay little amount of money by exploiting the labor force of our children all the days.

4.4.4. Effect on Diversified Income Sources

Livelihood diversification is a process by which people engage in a plurality of activities to achieve greater livelihood security. Frank Ellis defines diversification as, "the process by which rural households construct an increasingly diverse portfolio of activities and assets in order to survive and improve their standard of living" (Ellis, 2000). Diversification is often understood as a form of self-insurance through which people seek activities and income streams with different degrees of risk, expected returns, liquidity and seasonality.

In the research area, displaced households diversified their incomes sources and livelihoods before the commencement of flower farms through diverse natural resources. They could engage in diverse income source/ livelihood activities like crop production, animal husbandry, bee keeping, vegetable production, forest and grazing field resources base livelihoods as well as poultry activities. In addition, fattening, carting, petty trade and crop sharing were supplementary livelihood of the households. These could supports their income sources and ensure their food security throughout the year. However, flower farms investment interventions has affected their access to livelihood resources and thereby reduced their diversified income sources.

Almost all informants and respondents stated that, their means of livelihoods were diverse and their income sources were wide before the flower farm intervention. For instance, they had their own deposit either in cash or in kind (grain store, cattle and others). But now, their income sources and livelihood alternatives reduced after displacement.

4.4.5. Effect on Access to Education

Although there is no problem in access to school, children and youths of displaced (investment affected households) and poor landless households their livelihood were based on communal resources gave up their education either to support their family through wage labour or leaving their birthplace in search of better job opportunities. Consequently, absence of alternative income and poverty are the main pushing factors behind the poor family children to give up their education. Specially, the youth girls migrate to Arab countries to work as house servants for better payment in order to support their family and to change their lives. In most cases, the young are also dropout their education and work in flower farms to support their poor families living condition. For instance, the following figure summarizes previous occupation of flower farm workers.

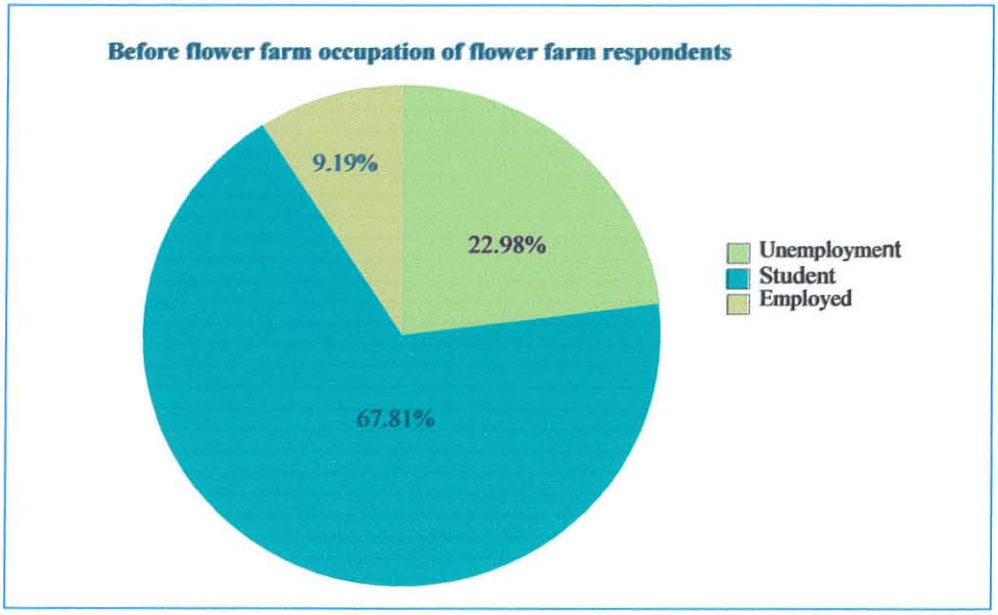


Figure 5: percentage distribution of farm workers by their previous occupation

Source: survey data, 2012

As it can be observed from figure 5, significant portion of the respondents, which accounts 67.81%, was student before they joined the flower farm. This shows they were forced to drop out their education due to their families' poor living condition. However, about 9.19% of the workers were employed in various jobs and joined the flower to get relatively better income. The rest 20.98% of the respondents were unemployed. Besides, Table 7 shows age distribution of respondents by their educational status.

Table 7: Educational status of farm workers by their age category (percent of respondents)

Age category	Educational status					Total
	Illiterate	Read and write	Elementary school	High school	Above12	
18-25	0 .0	2 3.0	32 48.5	25 37.9	7 10.6	66 100.0
26-35	1 5.0	1 5.0	10 50.0	8 40.0	0 .0	20 100
36-45	0 .0	0 .0	1 100.0	0 .0	0 .0	1 100
Total	1 1.1	3 1.1	43 49.4	33 37.9	7 8.0	87 100.0

Source: Survey data 2012

As it can be observed from the above table, majority of respondents, which is accounted 87.36%, are both elementary and high school completes. From this 49.4 percent of the respondents dropout their primary education while the 37.9 percent are high school complete

and unable to continue their further education due to poor living condition of their families. Moreover, displaced informants confirmed that the youth are forced to give up their education to work in flower farms as wage labour to support their parents. Beside, participants of the focus group discussions denoted that, children and youth of displaced and resources dispossessed households are forced to give up their education to help their family through wage labor.

Some of the youngsters who have been working in floriculture industries stated that even if they completed grade 10 they are not able to continue their further education in vocational training or collage level unlike others. This is because of their families' poor living condition and their moral responsibilities to support them. One mother informant also confirms this by stating, "Our children live and work for us. They are not able to go out. They work daily wages to support us but brought no change for their lives." An interview with flower farm workers, also affirmed that they stopped their education to support their families through wage labour.

Figure 6: Female teenagers works in flower farm as a daily laborer, (Photo by the Author).

Furthermore, one of the household informants aged 40 explained that,

> Today, I am unable to support my children. Consequently, my two daughter and one son drop out their education and being exploited there in the floriculture industries for little amount of money. In our village,

many households' children are also forced to quit their education and join the wage labor to support their weak families.

4.3. Socio-Economic Impoverishment Risk Variables

After the commencement of floriculture industry in area both the displaced and resource dispossessed households livelihood condition alter from farming mode of life to wage labour. This is because they were previously farm households their livelihood was depend on land and its resources. They did not have any skill other than farming and were relatively far from town areas. As a result, with the advent of the floriculture investment most displacees lost agricultural works and remain without alternative livelihood activities. These are due to the households are forced to join urban life and victims of livelihood disturbance as a result of old age, low education and lack of competence, and proper compensation.

Thus, the shift of livelihood or models of life have affected households' economic and social status as well as psychological makeup. Currently, some household heads who lost accesses to farmlands have been engaged in sharecropping lands while most of them lack opportunity to be engaged in self-employment and become unemployed. This shows the floriculture investment intervention negatively affected their livelihood alternatives and impoverishes them.

Furthermore, the following section Summarizes socio-economic impoverishment risk variables associated with displacement of households due to floriculture investment intervention.

4.3.1. Landlessness

As Cernea (1999), removal of land expropriation affected the main foundation up on which people productive system, commercial activities are constructed. In the study area, the establishment of the industry evicted farmers from their farmlands and private grazing fields, which were their main livelihood bases. Mainly, floriculture industries occupied productive lands that were used for varieties of crop production and communal grazing fields. For the majority the lands were efficient to fulfill minimum annual food consumption at household level. As a result, they were affected due to their livelihood system were deep rooted with their lands and lack of skill other than agriculture activities.

However, a few of them are remaining with small size farmlands that are not sufficient to support their families living condition. This is because they were obligated to give up their

land holding thereby loss diversified livelihood activities. One of the farmers aged 65 and dweller of *Birbirsa Siba kebele* stated the situation as follows:

> It is land not the money that passes through generation to generation to ensure life. If our land were with us, we would not starve and so would our children. By the advent of flower farms, we are dispossessed our farmlands and we lost our entire livelihood with our land. Consequently, today we do not practice in agriculture and animal husbandry activities as before.

Besides, the old man (land loser) added that, "Land is our everything. What is the value of money? It is ice, it has gone. If the land is with us we were free from hunger and miserable life." Currently, there are few of households to access to small size of farmlands, which is approximately less than one hectare. Moreover, agricultural expert confirmed that, now a day, there is no as such crop and communal gazing fields in the area.

4.3.2. Joblessness

As Cernea (1998) affirmed, unemployment resulted from displacement relatively most affects rural poor. Unemployment is a common phenomenon for displaced and resource dispossessed households in the area. It is caused either by loss of self-employment or lack of access to wage across different households. Unemployment situation of displaced and resource dispossessed households also related with loss of farmland, communal resources, loss of suitable ecology or biodiversity to generate livelihoods incomes. Beside, lack of skill other than agriculture and gain has also contributed for unemployment situation in the area.

Moreover, 42.9 percent of displaced households are 56 and above ages. Besides, 64.3 percent of the household respondents are illiterate. This implies that they are incompetent to participate in wage labour due to lack of necessary skills and aging problem. Especially, those aged and weak households who previously engaged in agricultural activities affirmed that after the coming of flower industries they become idle or loss self-employment alternatives.

4.3.3. Loss of Access to Common Property Resources

As Cernea (1999) stated, loss of access to commonly owned assets like forestlands, water resources, and common grazing lands are overlooked and uncompensated in most government schemes. Consequently, the poor households lost their farmland also loss access to common property assets and this situation has significantly affecting their livelihood activities.

Before the coming of the flower investment, common property resources were the major sources of diverse livelihoods for local peoples. For instance, local people could build their livelihoods by rearing livestock, beekeeping, firewood selling and grass as well as vegetable production. However, as to informants and agriculture office expert of town administration, after the establishment of flower farms in the area, there is substantial reduction of communal resources based livelihoods and income generating activities.

4.3.4. Food Insecurity

Household food security can be seen as factor of productivity, accessibility, asset and entitlement to obtain sufficient food throughout the year (Feleke, 1999). In the area, food insecurity is the matter of household loss of access to farmlands, communal resources, and suitable ecology to generate livelihood. Previously, land dispossessed households had ensured their food security throughout the year. This was through direct and indirect access to productive resources (croplands, communal resources, and suitable ecology).

Furthermore, they had ensured their food security through mixed livelihood activities. These include production of cereals, vegetables, and rearing of livestock. Besides, they were dependent on communal resources to ensure their food security throughout the year. However, loss of access to land and related resources has been affecting all the displaced and resources dispossessed household's food security status. The following two displaced households explained their food insecurity status as follows:

> Today, except those households previously having cash deposit or access to farmlands, the majority of us have remained food insecure due to price of food gain is increasing time to time. However, before our displacement, our productions were enough for our families' consumption and even we supplied to local market to earn money.

A thirty years old woman informant also added that,

> In these days, most of us are unable to fulfill our daily consumption let alone about week, month and year. Nevertheless, this was not our concern because everything was at home. Now, we have no self-employment to generate income to buy sufficient consumption from the market.

As survey data shows, out of total respondents, 14.3 percent have been producing sharecropping. Besides, as all the respondents and informants, enough food all the day with quality had gone with their land. Consequently, consumption level per day and availability of

quality food is reduced after displacement. Informants also confirmed that self-employment as well as loss of communal resources (communal gazing fields, water resources and forests), lack of saving and enough compensation has aggravated food insecurity to displaced households.

4.3.5. Health Problems

Cernea (1999) confirmed that vector born diseases, malnutrition, increasing stress and psychological trauma is highest for the weakest population segments like infants, children, and elders. Health related problems followed by the flower farm intervention are wide. For instance, food shortage such as malnutrition, reduction of quality and quantity of food intake as well as consumption pattern per day has become problem of health for most displaced and resource deprived households. Moreover, displaced households stated that food intake is unlike before displacement. According to them, previously, they had enough food with quality and quantity (full of cereals, milk and milk products, meat, honey, and vegetables) but now they lost all these things by the intervention of floriculture industries and all this deficiency resulted in different health problems. One of the woman informants demonstrated her family situation as follows:

> Our children grew up with milk, meat, and honey when we were in the former area. However, now they have been growing up without these things. Nevertheless, all these put pressure on our children health status. Now, elderly and children are weakened because of malnutrition or food shortage.

Furthermore, health problems have been observed on the people who work in the flower farm where greenhouses hot until 30-40 °c and chemicals/ pesticides used for flower production with little care or safety condition. As the researcher personal observation, works in flower farms have a sign of physically discomfort such as irritated and dehydrated or pale face, very weak physical appearance. Furthermore, the women informants in flower farms explained the working situation in flower industry as follows:

> We toil there for survival. We have no choice or alternative. We know the health risks and work burden. We work in the greenhouse with sever chemicals and pesticides pungent smell. We do not fell comfort because we always work with chemicals and pesticides as well as high greenhouse temperature. Even we stay there all the days 8 am up to 5 pm without enough foods.

Moreover, as Getu (2009) stated, Oromia region comprises around 94% of the current production area of floriculture industries. As a result, communal land covered with forest, grazing fields and private holdings are given for floriculture production upon payment of compensation. In such instances, the availability of water (underground or surface), favorability of the altitude, soil, temperature etc. impact of the sector on the local environment is not considered yet. Consequently, majority of the displaced households found very close to concentrated flower farms (greenhouse) are victim of chemicals sprays and unsafe waste disposal of the industry. For instance, as the researcher personal observation the residences of households close to the floriculture industries. See figure 7

Figure 7: Flower farms close to residences (photo by the author)

Likewise, household Informants neighborhood of flower farm explained their situation as, "We live in a polluted environment. During these floriculture industries spray chemical pesticides it diffuses and the smell just comes at our home and we experienced headache". Besides, the 28 years old informant at *Sadamo kebele* affirmed:

> These flower farms dispose their wastes close to our homes. Some of them also made small rill in which their chemical wastes are flow in to Holota river that our livestock is drinking and in lower stream of the river many households are using the river water for irrigation to produce vegetables. Though many times we inform them to handle the wastes, they continued to use the same method of waste removal. Consequently, today all people are found in health problem.

Furthermore, displaced households and woreda officials also denoted that the concentration of flower farms in the area has been affecting surfaces as well as ground water resources. Consequently, availability of water in the area is reduced to 2-3 days within two weeks on shifting basis. Technical expert of the water sewerage authority of the town administrative said that, "it is impossible to compete with flower farms to dig deep well to collect water. This forced us to allocate water on shifting bases." According to water department experts and FGD participants, the decline of water yield mainly related with depletion of ground as well as surface water sources resulted in typhus and typhoid communality in the area. Furthermore, all displaced respondents and informants explained that the flower investment intervention has resulted in destitution, despairs, health problems, food insecurity and other related problems.

4.3.6. Homelessness

Cernea (1999) noted that, loss of housing and shelter is temporary for the majorities of displacees, but threaten to become chronic for the most vulnerable. When we consider in broader cultural senses, homelessness is not merely loss of physical house, but it is loss of cultural space resulting alienation, and loss of group identity, which finally weaken identity, and ultimately over lays economic loss with cultural impoverishment.

In the research area, physical loss of house is not much common for displacees. Almost all displacees who lost their villages due to relocation were given 500 square meter land for new house construction in suburbs of the Holeta town. Otherwise, there is no as such large scale physical homelessness occurred with displacement.

The risk of homelessness for the displaced household is the loss of cultural spaces and identity in relation to their previous village. This might be explained through the loss of public places that they lost and cultural spaces, which were surrounded by forests, green pastures, and river streams. They had also deep-rooted physical, emotional attachment with previous environment. Many informants and displaced respondents told the researcher that it was not the physical house there that they dream but all the ties, beautiful gardens, green pastures with cattle, good weather, farmer's songs and cultural shows provide them satisfaction and pleasure. Here they clearly stated their loss as follows:

> We had lost all our pleasure, satisfaction, close relationships and mutual help due to livelihood change to urban way of life. There is no enough food, drinking, playing, and sharing of ideas together. Here, we do not feel sense of

belongingness because it is not our village and our life. Currently, we look our village from distant but all things are covered by greenhouses. Everything is died up and cleared for the development of floriculture industry.

4.3.7. Marginalization

Cernea (1999) stated that marginalization occur when many individuals cannot use their previously acquired skills at the new location and human capital is lost or useless. Furthermore, he added that economic marginalization is often accompanied by social and psychological marginalization, expressed in social status, ousters loss of confidence in society and in themselves and a feeling of injustice and increasing vulnerability.

Similarly, in the study area, the extent of marginalization on the displaced people is emanated from the loss of long established and guaranteed livelihoods as well as social relation. Before displacement, they used to supply their surplus products for local market beyond their consumption. However, currently, let alone supplying to local market access or purchasing for consumption is difficult for displaced households. Consequently, economic marginalization could intensify the social and psychological marginalization like loss of self-esteem, self-confidence and respects of the displaced households. Furthermore, one of the household informants explained the condition as:

> Loss of economic power (land and communal resources) resulted in the reduction of social position, confidence and self-esteem. However, when you live and die, you need economic power. Otherwise, no one listens, look, follow and share ideas and go with you, everything is with your wealth. This is what we have been facing after displacement.

Article 43(2) of Ethiopian constitution state that nationals have the right to participate in national development and, in particular, to be consulted with respect to policies and projects affecting their community. However, regarding compensation physically displaced and resource-dispossessed households who had access or use rights was marginalized since the compensation amount was decided without their participation and negotiations.

One of the displaced peoples conceived the situation as:

> We did not know exactly what they compensated us which for what. They simply gave us their estimation without clear procedures. We had crop and pasturelands, trees, permanent plants, large compounds with many houses, fences and grain stores. However, they were not willing to clarify their

> estimation procedures. They did it by themselves. Even, we have not participated while they measured our lands. They did, as they want without our participation.

In addition, flower farms also marginalized local people access to communal resources by occupying large size of land without full operation. At the same time, the relocated households are not maintaining their previous social integration. Their social ties are disconnected because they joined urban life and subjected to new livelihood.

4.3.8. Social Disarticulation

Cernea (1999) explained that displacement result in dismantling of community structures, social organization and loss of mutual networks. He also noted that, "Forced displacement tears existing community structures, social organization, interpersonal ties and enveloping the social fabrics". Mahapata (1999) stated that the loss of social capitals and moral supports among relatives and members of community networks leading to social anomie.

As it is true of most farming communities in Ethiopia, the family structure, social relations, mutual supports and other social capitals were common for the displaced households. For example the displaces had/have a long established communal work groups and associations like *'idir' and 'debo'* for cooperative works and creating social relation, mutual support as well as strengthen religious value and satisfaction. Besides, previously, elder had controlled productive assets like land and cattle so that sons and daughters worked on their family assets for mutual benefit. However, after displacement, social and cultural fabrics such as mutual work units, saving and religious association have significantly reduced. For example, traditional labour organization and mutual supports disappeared due to livelihood transformation or shift of peasant mode of life to labor hood.

Besides, informants and respondents who have been, working in flower farms claimed that they have lost their social relation (contacts) due to work burden and absence of weekend work leave (absence of weekly work leave) in the flower farms. A 27 old, female informants stated:

> We have no social life since we spent most of our time in the flower farm. No time to visit patients, no time to sit together to share ideas and feelings with our neighbors. All the days and the week, we are in the greenhouses. We have only one-day vacation in 15 days, which cannot enable us to perform social activities.

4.4. The Impact of Floriculture on Households: Who are affected?

The asset dispossession and livelihood resources dispossession have been affecting the whole dispossessed and resource deprived households. However, the extent of severity may vary across households. As the participants of focus group discussions and agricultural office experts noted, the displaced households are not equally affected. Different households are affected differently by the condition of relocation.

The communities living in this area undertake two economic activities, namely, livestock rearing and subsistence farming. The project would profoundly change lifestyle of these communities, by disrupting spaces for livestock grazing and crop production. The loss of land and livelihood without proper compensation would seriously violate their right to an adequate standard of living, including rights to food.

As of 2004, most of evicted households are relocated at suburbs and some of them have small plots of land that are insufficient to provide their families with enough food for the whole year. Thus, from the local households dispossessed land and related resources the risk of dispossession is relatively high relatively to women and elder headed households and young children. Subsequently, the relative impact is presented.

4.4.1. Women aad Elder Headed Households

As the study by the FAO in 2008, changes in land use system from small holders based farming to private, commercialized farming often affects women disproportionately. This is due to the fact that family's welfare is primarily dependent upon the them. In this regard, in Sub-Saharan Africa women are typically the primary food providers with the sole responsibility for producing the family's basic foodstuffs. The women income is positively correlated with a high level of nutrition and access to land. Thus, lack of sufficient compensation, lack of proper means of livelihood reconstruction and other incentives enhanced vulnerability of women and elder headed households. Furthermore, informants and participants of focus group discussions explained that displaced elders and women headed households are becoming dependent on their extended families members after the commencement of floriculture industries in the area.

4.4.2. Youths and Children of Displaced Households

Despite some compensation, poor youth and children who were evicted from their villages affected most due the loss of supportive livelihood or income sources especially common pasture fields, croplands, and forest resources by the coming of flower investment in the area.

Besides, over utilization and competition of surface as well as ground waters resources, poor waste disposal, pesticide and chemical spray has affected their health condition. Participant of focus group discussions emphasized that the households who have no children to support them are relatively more impoverished. In effect, one of the members of the relocated households explicated that:

> Abrupt evictions from our environment, low education, and lack of experience have been contributing to our incompetence and generation of our own income sources. Still the moment, none of us do not rehabilitate from shock of displacement. Most of us were born to agricultural background and we have no other skills. Currently, we lost our chance of being engaged in agricultural activity. Moreover, the existing living condition contributed its part for impoverishing us. Our money is mainly used up on purchasing consumption. Surprisingly, the majority of us are not able to buy '*ambasha*' or local bread for our children.

Consequently, the impact floriculture is clearly reflected on the youth and children of displaced and resource dispossessed households. Most of young children have been engaging in wage labour in flower farms to sustain their family life. The youth and children of such households have dropped their schooling.

4.5. Livelihood Reconstruction or Coping Mechanisms

According to Mahapata (1999:195), the components of livelihood reconstruction is not only compensation, but also adequate rebuilding of the displaced people's income generating capacity and livelihood particularly in terms of the four types of "capitals" (Natural, physical, human and social capitals). So, intensive socioeconomic risks of resettlement can brought under control through an encompassing strategy of safeguarding livelihoods and re-establishing income sources.

As Cernea (1998), the eight components of reconstruction process includes reemployment or self employment created by household, social inclusion (status improvement), better health care, adequate nutrition, restoration of community assets (creation of new common property resources) and community reconstruction (social reintegration) are designed to reverse eight impoverishment risks. In such way, the following section discusses the role of compensation and establishment of the flower industry contribution to the livelihood reconstruction and summarizes the coping mechanism used by households.

4.5.1. Compensation and Livelihoods Reconstruction

The constitution of the Federal Democratic Republic of Ethiopia' (1995) article 43 (4) states that, the basic aim of development activities shall be to enhance the capacity of citizens for development and to meet their basic needs. Furthermore, in relation to displacement, Article 44(2) states that, all persons who have been displaced or whose livelihoods have been adversely affected as a result of state programmes have a right to commensurate monetary or alternative means of compensation, including relocation with adequate state assistance.

However, conversely to the legal ground, as information from participants in focus group discussion and interviews with kebele officials denotes, the mechanisms and way of compensation payment are blurred. Local officials stated that the compensation was done at zonal level and their involvements in the process were very limited. At times, the amount of compensation per square meter was one birr and eight cents (1.80). However, the displaced people asserted that the amount given to them was unilaterally decided by the higher officials (elites), without their participation. Beside, in *Sadamo and Gelgel kuyu* rural kebeles, communal resources such as grazing and forestlands were taken from the community with the promise of social service provisions such as schools, clinic, water supply and road construction. Nevertheless, no flower farm enterprises has attempted to render such services except single asphalt road (4km) built by one farm.

As the displaced households explained, they were not involved in valuation of fixed assets. They also claimed that there was lack of transparency in compensation payment. Equally, the chances to participate in matters that affect their livelihoods after the introduction of floriculture industry were not given to the local people.

Many households confirmed that they did not know how they were compensated for crop and owned pasturelands, compound resources like tree, permanent plants, houses, harvest places and communal resources collectively. For the farmland dispossessed and home-evicted farmers of *Burqa Harbuu, Sadamo and Birbirsa Siba kebeles* were paid an amount ranging from 4400-130,000 ETB. See the following Table.

Table 8: Amount of compensation paid for displaced households

Amount of compensation paid for displaced households	N	Minimum	Maximum	Mean	Std. Deviation
	42	4400	130000	26413.52	24085.069
Valid N (list wise)	42				

Source: Survey data 2012

Informants argued that the compensation was not enough and unfair to change their life or sustain their livelihood. Moreover, lack of awareness on managing the money has also contributed for their improper usage of the compensation. Since most of the displaced people are old aged and did not attend formal education, they are not able to copy up with new way of livelihood. As a result, such people failed to utilize the compensation paid to them for new ways of generating income.

4.5.2. Flower farm and Livelihoods

The coming of the flower industry over the past seven years has given hope for most of the urban poor who are unemployed. In this line, there are about 6033 employees in 20 flower farms at study area. From this, 3774 employees are females and 2259 of them are male. Besides, out of the total employees, 1123 are permanent workers while the rest 4880 are temporary workers (HTLSAO, 2012). Undoubtedly, the floriculture has been creating job opportunities. As survey data reveals, in the flower farm understudy approximately three fourth of the respondents found to be non-permanent workers. In this case, 31% are daily labourers while 41% are casual workers. In contrast, 28% of respondents are permanent. See figure 5 that shows the employment status of the workers in flower farm.

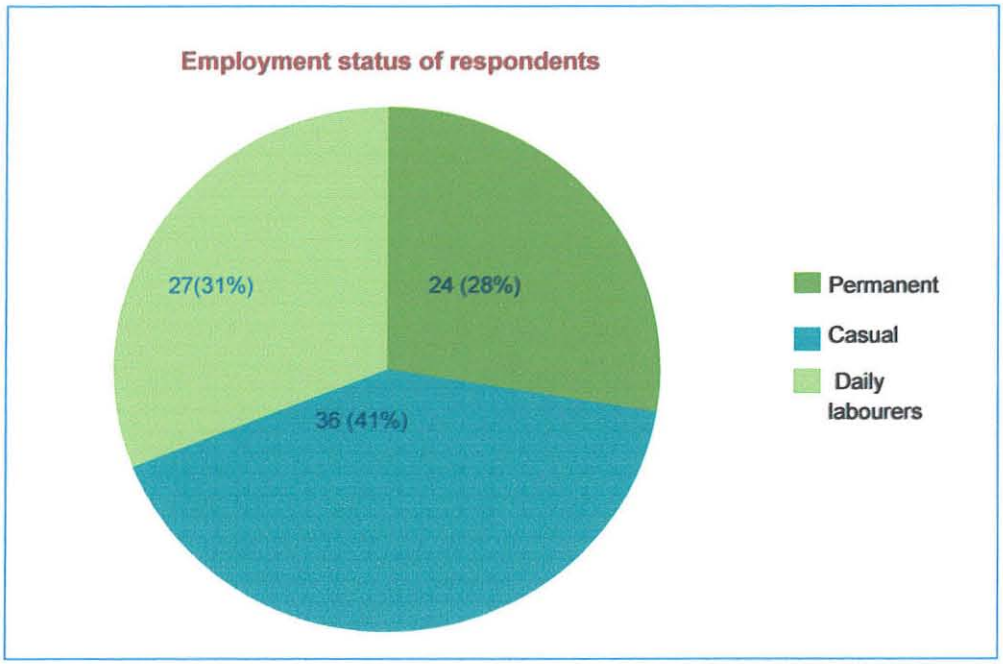


Figure 8: Percentage of Respondents by Their Employment Status

As information from the flower farm shows, most of the respondents who are permanent are supervisors and administrative and finance workers. Of all job categories, with regard to 40.2% of the total respondents have signed a contractual employment agreements. Surprisingly, there workers are employed on permanent basis but have no any contractual agreement. Though some workers are employed in permanent basis, they do not have legally valid employment contract. As information from the key informants reveal, the absence of any contractual document signed between the enterprise and the workers has created a sense of job insecurity among workers. Casual and daily labourers, who seem to constitute the overwhelming majority of the work force, often subjected to abuse of their labour. The owner of the farm usually prefer to hire workers on daily or temporary basis fearing that if they become permanent they are likely to raise some questions of employment rights.

As demonstrated in the Figure 5 above, there are two categories of employees: permanent and temporary. The former ones get their salary monthly while the later are paid based on calculation of worked days. About three fourth (72%) of the respondents are paid based on calculation of worked days, which is below a dollar per a day (with exchange rate of USD 1=17.00 ETB). The mean daily wage of the flower farms under study is 13.24 ETB. This amount is not sufficient to cover their expense for basic needs necessities.

Figure 09 shows the distribution of respondents by the amount of daily wage. As it can be observed from the figure, for the majority of workers, which is accounted, 88.51 percent the daily wage is below 16 ETB. This amount is very low compared to the nature of the work they perform and to cover their necessities.

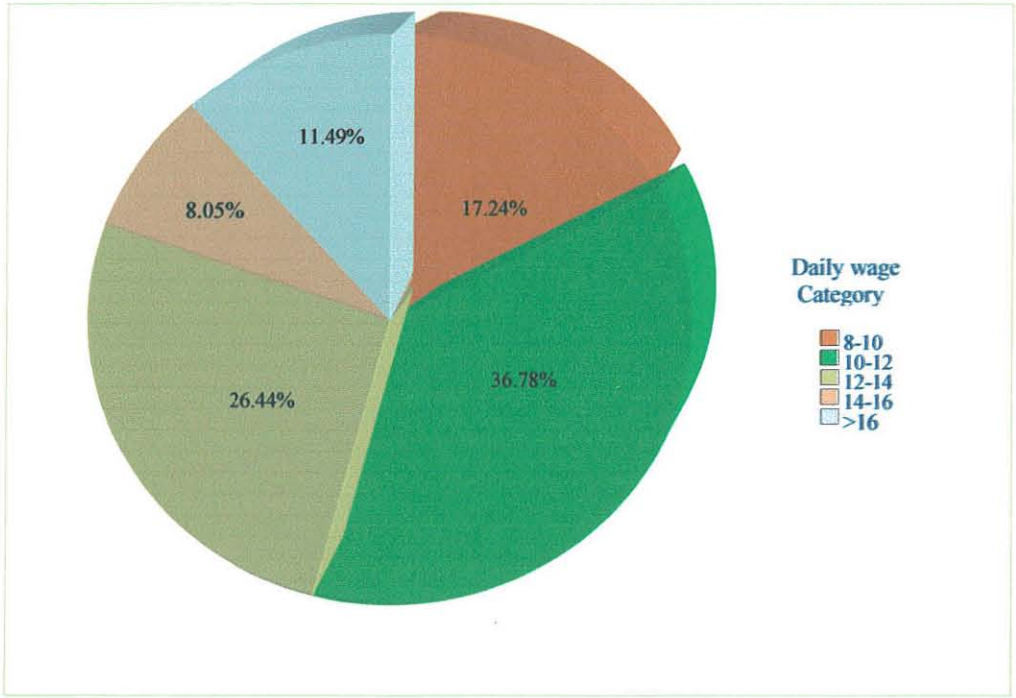


Figure 9: Percentage distribution of respondents' daily wages

Moreover, in depth interview with flower farm workers revealed that there are times where they skip meals or fail to pay house rent in time. In addition, the workers expressed that the service they render and the wage they receive is not equivalent. The wage does not take in to account of current changing cost of life. One of the key informants in flower farm stated their situation as follows:

> Our job is very tiresome and is done without any rest in extremely hot environment (up to 40ºc) for greenhouse workers and very cold for pack house workers. In addition, there is long hours of bending and transporting of flowers in greenhouse and long hours of standing in pack house. Above all, all the activities in the farm are highly exposed to chemicals. Whereas, the daily wage for majority of us is not more than 12.00 ETB per day which quite insufficient even for one of the basic human necessities.

All the workers, with whom the researcher has made in-depth interview stated that they are forced to do heavy workloads under inconvenient environment by earning inadequate wage.

Hence, many informants asserted that the amount of wage that flower farm workers earn could not cover their daily expense. This denotes that there is exploitative relation between the employers and the employees. Despite this, poor children of displaced and resource dispossessed households persist to work in this farm. In exposure to this, 32 years old women stated:

> It is flower farm that sustained my family. However, the wage that I earn daily or monthly could not buy enough food items to cover my monthly consumption. We still work under pressure of high greenhouse temperature and chemicals rather than dying with hunger at home.

Furthermore, sixty-eight years old community elder in Sadamo kebele stated:

> We have not expected flower farms in this way at the beginning. What we heard and we have seen with our necked eye is very different. At the beginning, they promised us many things so as to bring better life for our children and our locality. However, the realities end up with eviction from farmlands, grazing fields and forest cover.

In sum, though floriculture has created considerable numbers of employment opportunities, its positive impact on the livelihood of local people is limited. The provision of social services, physical infrastructures and community development activities by the industries are virtually insignificant.

In this regard, investors themselves affirmed that business oriented and their contribution for local development is limited, despite their enhanced numbers. The local people also confirm that floriculture industries solely focus on profit maximization by disregarding the strategies of building the livelihood of local community. They utilize the local resources as much as possible and leave empty green houses when they quit production and withdraw from the area. This situation is being observed on three flower farms in the area.

4.5.3. Livelihood Adaptation system of the Households

In this section, attempts are made to summarize the adaptation or coping mechanisms of investment affected households. Displaced households have taken some coping mechanisms to livelihoods. They have been trying to cope up with changing situation in different ways.

As it is shown in Table 9 below, out of the total sample households, 14.3 percent of them have been practicing crop production as sharecropping. Out of total sample households, 9.5 percent of them are working as wage labour including in flower farm while 19 percent of

them are dependent on remittances for their livelihood. Resource dispossessed households also make arrangements for likelihood risk occurrences. The coping mechanisms of households are different based on capacity or ownership of resources. Table 9 tabulates the main coping mechanisms of households.

Table 9: Percentage Distribution of Respondents by the types of coping mechanism

Sex of households	Types of coping mechanisms of households after displacement						Total
	petty trade	grass selling	Driving horse (cart)	Share cropping	Remittance	Daily wage labour	
Male	3 11.1	5 18.5	3 11.1	6 22.2	7 25.9	3 11.1	27 100.0
Female	6 40.0	5 33.3	2 13.3	0 .0	1 6.7	1 6.7	15 100.0
Total	9 21.4	10 23.8	5 11.9	6 14.3	8 19.0	4 9.5	42 100.0

Sources: Survey data 2012

First, as it can be observed, in the table 9 above, 14.3 percent of households depend for their livelihood/ income sources on crop production through contract or share cropping. These households are going far distance up to 5 km to 6 km rent contract share cropping land at adjacent rural kebeles. Households who engage in such activity is/are those who have no skill than agricultural and other daily based wages. In the share cropping activity the parties participating/ sharing the activity and share raw materials for production.

Secondly, most households rearing livestock before displacement have sold their livestocks after displaced. This is resulted from flower farm expansion carried over both private and communal resources. Consequently, rearing livestock also significantly reduced among households to earn income by selling milk and milk products due to shortage of critical resources (pasture and water). Dairy farming been practiced by few households along with animal fattening (beefing). But there has been challenges the households to provide them fodder or by products either from natural pasture or from market.

Thirdly, Poor households who were dispossessed their livelihood resources are dependent on fuel wood, animal dung and grass selling. Currently, such livelihood resources are not available area because of flower farms intervention. Consequently, 23.8 percent of households went longer distances to rural kebeles 4km to 6km per day to collect firewood animal dung and grasses for their livelihood. Before the investment intervention, they could collect enough fire wood, animal dung and grass from nearby areas with two to three trips on

an average distance of 1km to 2kms per day. But now only one trip per day without enough collection.

Fourthly, daily wage labour is another income source or livelihood strategy for displaced households including the work in floriculture industries. However, in flower farms the daily wage is very low compared to the work burden and current living condition prevail in the country. In the study area, the construction of condominium house and other related construction investments demands large labour force. Consequently, from total respondents 4.5 percent of activate age groups are engaged in wage labour as an alternative income-generating scheme.

Fifthly, cart driving is also one means of livelihood/ income sources for 11.9 percent of sampled households along with other activities like rearing small number of milk cows and patty trade especially by homemakers. As informants involved in this activity asserted, due to high price of fodder in the market, lack of pasture and price of horses, taxation and competition has also made the business discouraging compared to its benefits.

sixthly, Both displaced and resource dispossessed households women have been trying to make income and living through petty trade activities of small items such as cereals, coffee, salt, dry food items and ingredients for local beer production, like *bikil, gesho* and others to support living. Besides, the majority of women households have been trying to generate income and support their living through preparing local bread and drinking like *tella, areke and tej either* to sell in their house or provides it for local drinking houses as a whole sellers. However, the activity is not encouraging due to lack of access to credit and other facilities.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

This thesis has examined impoverishment risks that are caused by the floriculture industry on the livelihood of local people. In order to examine impacts brought by flower investment the study employed Cernea's IRR model of development-induced displacement as a theoretical basis. In this light, the empirical evidences denote that the impact of floriculture investment is consistent with Cernea's IRR model.

Accordingly, the mismanagement of waste disposal of the farm industry resulted health problems on local households vicinity of the farm. Furthermore, some local peoples lost their farmlands and grazing fields resulted in change of their livelihoods. Thus, the commercialization of floriculture brought the reduction in crop production, livestock rearing, beekeeping, and water resource based livelihoods. Particularly, the impact of the floriculture sector on apiculture activities is due to the loss of suitable ecology for bees. In effect, the loss of seasonal flowers, deforestation and the spray of chemicals for the production of flowers impact the bee keeping dependent livelihoods.

Convincingly, the impoverishments risk variables that were formulated by Cernea's have the direct correlation with the impacts of floriculture expansion up on the displaced local people. Evidently, the study revealed that a number of households (253) lost their land holding. Consequently, this intern affects the livelihood diversification of the displaced people. On the other hand, displacement and loss of farmland constrained the opportunity of being self-employed in agricultural activities. Moreover, the reduction of grazing fields, forests, and water resources heightened unemployment problem.

Furthermore, food insecurity remains the main problem of displaced households. Loss of crop production and communal resource based livelihood after the flower farms expansion affected food security. The advent of flower farms in the area resulting food shortage (malnutrition), poor quality food intake and reduction of consumption pattern per a day and working in flower farms with chemical pesticides are brought healthy problems on local people.

Although there is no problem of access to schools, many children of the displaced households dropped /stopped their education. Instead, they are working a daily laborer in the flower farms to support their families. In addition, social disarticulations resulted from the change

of livelihood system induced by introduction of floriculture industry. Thus, the social ties of many households have been disorganized. In this sense, social capitals like *debo and equb* are significantly reduced due to the change of livelihoods systems and loss of agriculture based economic activities.

Equally, the Lack proper mechanism of livelihoods restoration has resulted in socio economic dependency. Nevertheless, there are variations in the degrees of consequences of floriculture across the local people. In this light, weak elders and poor female-headed households' lost access to communal resources and incompetent to generate income or livelihood are relatively affected more by the loss of access to resources.

Ultimately, many of the households are still claiming against unfair compensation visualizing the fixed asset they already lost for the sake of the industry. The exposition to this was that the many given to them as compensation is not capable of guarantying their shelter (house building) at their new destination.

The study also denotes that the local peoples consider the industry as profit maker at the cost of local community's livelihoods. In response to the livelihood change due to floriculture industry, there are some coping mechanisms taken by displaced peoples. However, the coping mechanisms of dislocated or displaced households are unable to either maintain or foster diverse sources of income to adapt the new situation of life.

5.2. Recommendations

One of the primary objectives of investment policy of Ethiopia is to improve the living standard of the people through the realization of sustainable socio-economic development. Hence, different development projects are designed in order to bring positive changes and improving well-beings of the citizens. More specifically, the main aims of floriculture investment were primarily to generate foreign currency, creating employment opportunity, technological transfer and thereby to improve the living standard of people living in the vicinity of flower investment. Conversely, under payments rate for daily laborers, expansion of the flower farm at the cost of local people, improper spray of chemicals and mismanagement of waste disposal constrains the principal objective of investment.

Therefore, in order to bring mutual benefits to the local people and investors, concerned stakeholders need to balance the expansion of floriculture with socio-economic and ecological factors. A mere emphasis on grand profit maximization without assuring the long-

term livelihood system of the local community would be problematic. Hence, based on the finding this research, the study suggests the following recommendations:

At the outset, displaced farmers were not aware of the dislocation program and they were simply told to leave their farmland for the investment of floriculture industry. This means communities were not participating in planning and implementation of the investment projects. This has later constrained the acceptable and readiness of the local people to adapt the new mode of livelihood introduced to them due to investment projects. Hence there is need to give due attention to the full participation of local communities through making consensus, awareness, with all the stakeholders.

Furthermore, before the establishment of any industry in a given locality, concerned stakeholders should identify social, economic and environmental situation of the area to bring symbiotic relation between the industry and closer local community. However, before the expansion of the floriculture industry in the area, socio-economic realities of local people were not well examined. Consequently, the industry highly focused on maximizing profit without equally fostering the livelihood of the local peoples at its vicinity. Henceforth, all the concerned stakeholders need to plan, monitor and evaluate the impact of floriculture upon the livelihood and environment.

Secondly, the households were paid insufficient and imbalanced amount of compensation for the loss of their assets. To this end, the concerned government offices along with the owner of the flower farm did not support those people who took the compensation so as to properly use for coping with change of their livelihoods. Besides, the households who did not have own farmland but used communal resources have not gotten any form of compensation. To compensate the displaced properties of displaced people, even cash compensation alone is not sufficient. Thus, there is need to adopt alternative means of educating the source of livelihoods by concerned stakeholders. For instance, the technical and entrepreneur skills are needed to raise the different coping mechanisms of changing circumstances due to introduction of the investment. In this regard, efforts need to be made to benefit especially the poor women headed households and youth. This would intern guarantee sustainable livelihood.

Thirdly, the commencement of the flower farm investment affected the livelihoods of the local community and resulted in socio-economic impoverishment risks such as landlessness, unemployment, loss of access to communal resources, food insecurity, increasing health

problems, homelessness, and loss of access to education have been identified in the study area. In addition, the research found that loss of diverse income sources occurred because of displacement and resource dispossession. In such away, most of the coping mechanisms of displaced household depend on low-income generating activities like daily labour, local alcohol making; cart driving. This necessitates the need for support in terms of training, access to credit facilities, market information and urban agriculture.

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Annexes

Annex 1: Check list questions for flower farm owners (managers)

1.Name of the Farm:_____

2.When did the farm project started? _____

3.Owner ship type: _____

4.Areas under Production in hectare: _____

5.Total Number of Workers:_____

1.Permanent workers:_____

2.Casual workers:_____

6. Does the farm have a sustainable arrangement for health and safety condition of employees? If yes how:_____

7. Does your farm participate in locality development? If yes in what way

8. What are the environmental related investment or expenditures your farm made in the last five years?

9. Is there any governmental entity made a periodic supervision on your products impact of environment, social and employees? If yes which organization government entity:

10. How does the farm dispose of pesticides and other chemicals?

11. Does the farm give training on the potential hazards and necessary precaution that should be taken to the workers especially to the sprayers?

12. How often does your farm provide protective clothing to the sprayer workers?

13. Does the farm have any programs to help reforest the surrounding areas?

14. What kind of land does the farm occupies (forest, farmland, and grazing fields, etc.)?

15. If the land were used by local farmers did compensation were given to them properly?

16. What are the major sources of water used by the farm (river, deep walls, rainwater collection in reservoirs? _____

Annex 2: Checklist question for Focus group discussion

1.Before the settlement of floriculture farm in the area who were the user of the current land? If it is local community, do you explain livelihood bases or resources before and after the investment?

2. How do you explain the role of compensation for local farmer's livelihood construction?

3. Does the expansion floriculture industry have affected food security status of displaced local farmers?

4. Does the farm have created alternative income for farmers other than its normal production activity?

5. Have you ever come across water use security problem after establishment of flower farm?
6. After establishment of flower farms, do you see any implicit economic activities in the local area?
7. Do you see any social service improvements after establishment of flower farms? If yes how and where?
8. After the expansion of the farm in the surrounding area, are there establishment and or expansion of other factories or any business activities?
9. Does the farm have any life changing effects on local farmers and local community living standards? If yes how? If not what are the problems?
10. Does the farm have any negative effect on livelihood components or activities? If yes could you explain?
11. How do you see the industry employment opportunity and income earned to livelihood improvements?
12. Are there Social conditions like mutual supporting networks and associations before and after the project?
13. What are the livelihood adaptations or alternatives of local farmers after their displacement?

Annex: 3: Check list for in-depth interview with government officials

1.Name: _____

2. name of the office_____

3. Does your organization undertake follow up and supervision activities for floriculture industries? If yes how often?
4. What positive contribution do the floriculture industry has with regard to both workers and local people livelihood condition?
5. What negative impacts does the floriculture industry have with regard to land security issues?
6. Do local farmers complain about land tenure security and issue of compensation? If yes how do you explain fairness and effectiveness of the compensation for local farmers?
7. What is your office do to safeguard the livelihood of local people and the workers welfare in the farm?
8. Does your office handles flower farm workers complaints? If yes what kinds of complaints usually come to your office and how do you solve it? What changes you face in trying to solve those problems?

9. Does expansion of floriculture industry expansion result in degrading livelihood diversification strategies of local people like crop production, animal raised, beekeeping activities, and vegetable production? If yes how could you explain?
10. Which group of people affected more because of displacement and what kind of resources they deprived?
11. Generally how do you understand Social and economic conditions like access to technology, better income and employment, off farm opportunity and better living conditions after the floriculture industry establishment in the local area ?

Annex 4: Check list for Holeta Agriculture and Bee research center

1.Name:_____

2.Department:_____

3.Responsibility:_____

4.What are the main environmental impacts associated with the introduction floriculture industry in the surrounding area?

5.What looks like beekeeping activity before and after the project intervention?

6.Are there any positive or negative effects of floriculture industry in relation to beekeeping activity?

7.What do you think about bio-diversity in the area before and after the investment intervention in relation to apiculture activities?

8.What do you explain livelihood effects of the floriculture industry on the surrounding area?

9.How do you explain major effects of flower farms in relation to its local resources (land, water and labour) utilization?

Annex 5: Checklist for in-depth interview of displaced households

1.Name: _____

2. Sex: _____

3. Age:_____

4.Kebele: _____

5.What do you compensated during displacement?

6. What about the fairness of the compensation?

7. Do you think the displacement was planned and voluntary?

8. What were your family /household's major economic activity before the displacement?

9. How do you explain patterns of consumption, food security issues after the project intervention?
10. What looks like the availability of social services and infrastructure after project intervention?
11. What kinds of livelihood adaptation you followed after the displacement or project intervention?
12. Do you think the livelihood adaptation is good enough for decent life or good well-beings?
13. What do you think about its effectiveness and security comparing with what you had engaged in before?

Annex 6: Survey questionnaire for displaced households

I. Socio-demographic situations

1. Age: _____
2. Sex: 1. Male 2. Female
3. Marital status: 1. Single 2. Married 3. Divorced 4. Windowed
4. What is your level of education

1. Illiterate	4. second cycle primary school(5-8)
2. Read and write	5. first cycle Primary school (1-4)
3. Secondary education	6. (9-12) and Above grade 12

5. Is there any family members giving up his/her education after displacement? 1. Yes 2. No

II. Condition of Benefits

6. How far is your house from the farm (in kilometers)?
7. Have you earned any benefits from floriculture industry in your locality? 1. Yes 2. No
   If yes, what type of benefit you have earned? _____
8. Do you displaced because of floriculture expansions? If your answer is yes, state the amount of compensation you have got (in cash)_____
9. Is compensation by the time has changed your life system? 1. Prominently 2. Slightly 3. No change
10. Do you feel that you and your family are better off than before your displacement?
    1. Yes 2. No

III. Asset ownership condition

11. How many livestock do you had/ have? 1. Before _____2. After_____
12. Do you have/ had beehives? 1. Before_____ 2.After_____

13. Currently what is your means of life survivals

1. Farming on own land income
2. Employed to land rural landowner
3. Petty trade
4. Employed in flower farm
5. Waiting for job
6. Remittance

14. How many hectares of land (both crops and owned pasture) do you had/have?

1. Before displacement: _____ 2. After_____

IV. Livelihood activities

15. What were/ is your previous livelihood bases occupation or resources of income after displacement?

1. _____ 2. _____

16. What is /are your livelihood bases, occupation or sources of income after displacement?

1. _____ 2. _____

V. Socio-economic condition

17. The amount of crop you have produced land in quintal

1. Before displacement: _____ 2. After displacement _____

18. Do you had saving or '*equb*' after displacement? 1. Yes 2. No

19. Do you have saving or '*equb*' before displacement? 1. Yes 2. No

VI. Infrastructure

20. Does the farm provide financial assistance to basic infrastructural facilities in your local area? 1. Yes 2. No

21. Does the farm have created alternative income for displaced farmers? If yes Please specify:_____

22. After establishment of the farm what new economic activity do you see other than its employment opportunity?

VII. Land security

23. Does the farm have created land ownership security problems in your local area? 1. Yes 2. No

24. If your answer is yes for question no. 28 from what corner does the security problem emanated?

1. from Government 2. Peasant household 3. Conflict from early owner

25. Do the flower industries currently expanding on farmers land holding?

1. Yes 2. No

26. If your answer for question number 29 is yes from whom the farm took additional land for its large-scale production activity?

1. Government 2. Peasants 3. Its own land that was at its hand before 4. Others

27. Do local farmers face any land ownership conflicts with floriculture industry?

1. Yes 2. No

28. If your answer for question 32 is yes what are the causes of the conflict?

1. Low amount of compensation paid for farmers
2. because of displaced without legal basis
3. Because of the loss of livelihood opportunities
4. Others_____

29. For communal gazing land owned who were earned the compensation?

1. The peasants 2. The government 3. The community 4. no one

XII. Environment and health impact condition

30. Have you ever come across the person who infected by any illness while he/ she is on duty in the flower farm? 1. Yes 2. No

31. If your answer is yes for question no. 37 yes do, you know the cause for the person's infection problem? 1. Chemical 2. Machine related 3. Temperature

32. Does the farm have had air, water and other environmental related impacts on the surrounding area? 1. Yes 2. No if yes, what are the indicators

Annex 7: Questionnaire for flower farm workers

I. Socio-demographic questions

1. Age: _____

2. Sex: 1. Male 2. Female

3. Marital status: 1. Single 2. Married 3. Divorced 4. windowed

4. Place of birth: 1. Holeta town 2. Holota surrounding 3. Other town 4. Other rural area

5. With whom are you currently living?

1. Parents 3. friends
2. My own family 4. By my own

6. Education status

1. First cycle Primary school (1-4) 4. second cycle primary school(5-8)
2. Illiterate 5. Secondary education (9-12)
3. Read and write 6. Above grade

II. Working condition

7. What is your employment status? 1. Permanent 2. Casual 3. Daily laborer

8. Do you have legally valid employment contract that is signed by you and your employer?

1. Yes 2. No

9.What was your employment condition before you have employed in any flower farms?

1. Unemployed 3. Employed

2. Student 4. Other_____

10. If you were employed previously why do you choose flower farm?

1. To get better income 3. For career development

2. It does not need much effort 4. Relatively there is freedom

11. Do you think your employer treat you in appropriate manner?

1. Yes 2. Not that much 3. Not at all 4. Others

12. Is there improper dismissal of workers? 1. Yes 2. No 3. I do not know

III. Living wages

13. How much do you earn daily/monthly? _____

14. Does the income you get from the farm is enough to meet your minimum basic needs?

1. Yes 2. No

15. Does the farm pay medical costs for treating an injury or disease, which is occupational, related? 1. Yes 2. No

16. Is there position and salary promotion in the farm?

1.Yes 2. No 3. For permanent employees 4. Others

17. How many hours per week are you expected to work on regular basis? _____

IV. Health and safety condition of workers

18. Have you taken training on safe handling, necessary precaution for pesticide and chemicals?

1. Yes 2. No

19. Does the farm provide you with the necessary protective clothing regularly?

1. Yes 2. No

20. If your answer for question no. 32 is yes, the how often do they provide you with protective clothing?

1. Every three month 4. Every six month

2. Annually 5. When the cloth is torn out

21. If the answer for question no. 32 is No, then how are you doing your task?

1. Without protective clothing 3. With old protective clothing

2. I buy by myself 4. I use simple protective clothing

22. Have you faced any health problems after you have joined the farm?

1. Yes 2. No

23. If your answer for question No. 36 is yes, then what kinds of health problems have you encountered?

24. Do workers whose job is directly related with chemicals given training on safe handling and disposal of chemicals regularly?

1. Yes 2. No 3. I do not know

25. Does pesticide application take place while there are other workers inside the greenhouses?

1. Yes 2. No

Declaration

I, the undersigned, declare that this thesis is my original work, which has not been presented for a degree in this or any university; and all sources of materials used in the thesis have been duly acknowledged.

Name: Aseffa Gutema Chemeda

Signature: _____

Date of submission: 25/5/ 2012