ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

CENTER FOR REGIONAL AND LOCAL DEVELOPMENT STUDIES



CHALLENGES AND OPPORTUNITIES OF HORTICULTURE INDUSTRY AND ITS CONTRIBUTION TO THE ETHIOPIAN EXPORT DIVERSIFICATION: THE CASE OF SEBETA AREA FARMS, FINFINNE SURROUNDING SPECIAL ZONE

BY:

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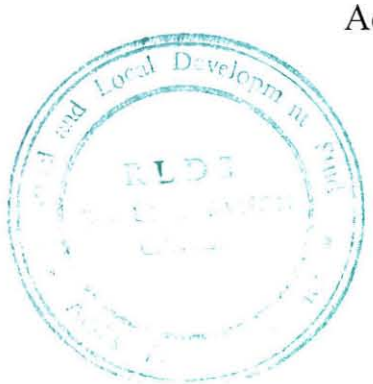
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ACRONYMS

AU	African Union
ADB	African Development Bank
ADLI	Agricultural Development Led to Industrialization
BOT	Balance of Trade
BOP	Balance of Payment
CFC	Common Fund for Commodities
COMESA	Common Market for Eastern and Southern Africa
CSA	Central Statistics Authority
DBE	Development Bank of Ethiopia
DCs	Developed Countries
EEPA	Ethiopian Export Promotion Agency,
EGS	Export-led Growth Strategy
EHDA	Ethiopian Horticulture Development Agency
EHPEA	Ethiopian Horticulture Producers and Exporters Association
EIA	Ethiopian Investment Agency
EIC	Ethiopian Investment Commission
Et-fruit	Ethiopian Fruit and Vegetable Marketing Enterprise
EU	European Union
FAO	Food and Agriculture Organization
FDRE	Federal Democratic Republic of Ethiopia
ICAs	International Commodity Agreements
IDS	International Development Strategy
IGAD	Inter-Governmental Authority on Development
IMF	International Monetary Fund
LDCs	Less Developed Countries

MBCU	Meki-Batu Corporation Union
MIGA	Multilateral Investment Guarantee Agency
MOFED	Ministry of Finance and Economic Development
MOTI	Ministry of Trade and industry
MoU	Memorandum of Union
NBE	National Bank of Ethiopia
UAAI	Upper Awash Agro-Industry
ODA	Official Development Assistance
SNNP	South Nations Nationalities and Peoples
SSA	Sub-Saharan African Countries
SWOT	Strength Weakness Opportunities Threats
UN	United Nation
UNCTAD	United Nation Conference on Trade and Development.
USD	United States Dollar
VAT	Value Added Tax
GTP	Growth and Transformation Plan

ABSTRACT

The purpose of this study was to assess the challenges and opportunities of horticulture industry focusing on its investment environment; production and export process sand its contribution to Ethiopian export diversification as horizontal export diversification strategy in minimizing an over-reliance on few low value commodities export. It is a case study of Sebeta area farms of fruits, vegetables and flowers. Both qualitative and quantitative approaches were employed in the study. Across-sectional survey though questionnaire, interview, focus group discussions and observation methods were used to collect data from main industry's development facilitators and farms owners. Secondary data were also gathered from different publications. The data obtained were analyzed though descriptive statistics using SPSS and SWOT analysis by narration. The result of the study reveals that yet the Ethiopian export structure has not been diversified. It is highly dominated by few traditional agricultural commodities. Hence, its export earning was fluctuating both in value and volume. As a result, the overall balance of payment of the country is widening deficit. The currently horizontal export diversification strategy through horticulture industry is minimizing an over reliance on few low-value commodities. Investors from foreign and domestic both in number and amount of capital they invest on horticulture are rapidly increasing. The generated income account from the sector reached for 10% of the nation's foreign currency earning, which was only 3% before four years ago. The industry is also becoming the 3rd largest source of foreign currency next to coffee and oilseeds. The incremental of export share of horticulture produces is mainly from the rapidly booming of floriculture whose share is 80.67% in average from the industry's produces export. The reasons for the sector remarkably booming are incentive schemes given and natural comparative advantages the country has such as favorable climate, abundant land (long term leased), varieties soil types, suitable topography, agro-ecology, cheap labour, loans in advantageous terms, location for export (proximity), irrigable lands and rivers, increase demand of horticulture produces, market oriented policy with attractive incentive packages and etc. Moreover, governmental organizations such as EIA, EHDA, MOTI, DBE and the industry's association EHPEA are working in coordination to enhance development of the industry. Despite these efforts to develop the industry, it is still at nascent stage and not performing at its maximum potential as compared to what would have been achieved. Factors hinder expansion of the industry and the country could hardly benefit from the industry were emerged from failure in realizing the existing opportunities that help in development of the industry. The main bottle necks against further expansion of the industry are categorized in to lack of public infrastructures, weak institutional service delivery, weak market chain and unfair relationship, and lack of skilled manpower in managerial and technical know-how on the industry activities and weak water management. These constraints are serious especially in the rural areas of the country. Because of these problems most horticulture farms in the country are limited to just adjacent to main asphalt roads nearby the capital city-Addis Ababa closeness to Bole airport. Hence, in order to expand the industry and be benefited from the sector, working in coordination of Government, donors and stakeholders and investors to fulfill the problem is very important. The currently work of government by giving high attention for public infrastructure has a good prospect for the future development of the industry.

Key Words: *Export diversification, high- value agricultural commodities, Horticulture industry*

CHAPTER ONE: INTRODUCTION

1.1 Background

LDCs rely on a limited number of traditional, low values per weight and bulky agricultural commodities for export. But the high dependence on one or few of such export commodities leaves these countries' export earnings extremely vulnerable to two problems associated into commodity dependency namely volatility of prices in the short-run and the continuous decline in price. The prices in real terms of these commodities have been steadily declining over the past decades (Humphrey, 2006:19). Hence, diversification in to export of non-traditional agricultural / high-value products is considered as one of the possible ways be out of an over reliance on monoculture/ single or few low-value commodity/ traditional products export dependence. High-value products provide an opportunity for LDCs to compete for a share of lucrative export market (Lambaste, 2005: VIII). Particularly, diversification of traditional agricultural commodities in to high-value- horticultural production and exports (fruits, vegetables and flowers) has been indicated as a sector that can provide real opportunities for enhancing export performance (Weinberger and Lumpkin, 2005: 10-11).

Although export diversification through horticultural produces is advocated as an alternative export promotion strategy, the performance of this sector by some SSA countries has been generally unsatisfactory. For instance, UNECA and AU (2007) pointed out that, since the early 1980s Africa's diversification record through horticultural produces has been volatile, gains fragile and short-lived. However, in recent years, a few SSA countries (for example, Kenya, South Africa, Uganda, Cote d'Ivoire, Ghana and Zambia) have made some progress in diversifying export through horticultural products (UNCTAD, 2008). In case of Ethiopia, the structure of Ethiopian export did not show any significant change and is not diversified. In both pre and post reform periods, coffee stood first from among the few exportable items of the country having lion's share of total export (MOTI, 2007). Coffee is one of the primary traditional agricultural commodities, so that its price has been affected by world price fluctuations. Hence, the country's economic activities have been also fluctuating together with change of coffee price.

The horticulture commercial farms (fruits and vegetables) began in Ethiopia during Emperor Haile Selassie's era and flower business was introduced by the Derge regime during 1980/1981 in collaboration with the German Society for Technical Co-operation. The Horticultural Development Corporation, a state owned enterprise was the first business entity to enter into the floriculture industry (Sisay, 2004). In Ethiopia, horticulture (production and marketing of fresh fruits, vegetables and flowers), which is a high-value and labor-intensive cash crop can contribute fast and successful diversification of export base towards to non-traditional agricultural commodities to attain its export earnings stability. The country has got an immense potential to develop intensive horticulture. The country possesses several natural and man-made comparative advantages for horticulture production and export (Oskam et al., 2004).

Despite Ethiopia's endowment of enormous natural resources and other competitive advantages, horticulture industry of the country, so far, has been unable to make any significant improvement to export earnings. The amount of horticultural products exported from Ethiopia is currently at a minimal with respect to the international market demand for the country's product. Hence, in order to promote the export sector, it needs to look in to the industry's development challenges and opportunities. Thus, this study aims to assess factors behind for unsuccessfulness of Ethiopian horticulture industry expansion particularly fruits, vegetables and flowers to be strong competitive in the global horticulture market and stabilize export earnings of the country.

1. 2 Statement of the Problem

Fluctuation in export earnings is severe for countries like Ethiopia that obtain a big share of their export income almost from a single primary/traditional agricultural commodity-coffee. Ethiopia had been dependent on traditional agricultural products and single primary exportable item-coffee as a major export crop for a long period of time. Until recently, coffee alone accounts for up to 60 percent of total export earnings (MOTI, 2007). Hence, the general level of economic activities of the country have been followed closely the external and internal fluctuations in the earnings from coffee. Due to these facts, Ethiopia's share in the world total exports in 2006 was only 0.01 percent (WTO, 2007).

Diversifying the agricultural export base from traditional agricultural products towards non-traditional/ high-value horticultural crops could increase export earnings and reduce fluctuations for they are by nature necessary and income elastic products. Moreover, the horticulture industry is labour intensive, could create more rural employment opportunity than other industries. Ethiopia has enormous opportunities in expanding horticulture industry due to favorable climate, abundant land (long term leased), varieties soil types, suitable topography, agro-ecology, surplus and cheap labour, loans in advantageous terms, strategic geographical location for export (proximity), irrigable lands and rivers, market oriented policy with attractive incentive policy packages which are opened-up for both domestic and foreign investors (Tsegaye, 2010).

Generally, given the declining export earnings from traditional exports of coffee in particular, horticulture export expansion represents an important area of potential income growth. Despite there is high potential in minimizing an over reliance on few low-value commodities export through expansion of horticulture industry, the country has not yet been performing at its maximum potential as compared to what would have been achieved. Ethiopia needs to expand and diversify its narrow base of export sector recognizing that the existing situation leaves the economy vulnerable to downturns in prices or demand for its exports. The share of horticultural production and export in total agriculture sector role is inadequate. Comparing with other SSA countries, which are engaged in horticulture production activities, the country is not exploiting the potential that it can produce. For instance, a World Bank Study (2004) shows that Ethiopia's total horticultural export income in 2003 was about 2.8 million USD, which was only 2.2 percent of the Kenya's export income from the same industry. Therefore, it would be very important to look into factors hinder the country could hardly benefit from the industry.

Since Horticulture industry is relatively new, it needs much study. No rigorous study has been conducted regarding these issues. For the weak performance of the industry, the factors lie in realizing the country's enormous potential and opportunity for production and exports of the industry's products. Thus, this study is intended to assess the challenges and opportunities of horticulture industry in Ethiopia in general and Sebeta area, Finfinne Surrounding Special Zone and the industry's produces contribution to national export diversification. Sebeta area is selected purposively as study area for it is one of areas in the country where high concentration of

horticulture industry is located and believing that indicative and representative data will be generated from the study area. Thus, this study will provide insights to improve the competitiveness of the industry in the international market.

1.3 Objective of the Study

1.3.1 General Objective: The overall objective of this study is to assess challenges and opportunities in the horticulture industry expansion and its contribution to the Ethiopian export diversification.

1.3.2 Specific objectives: The specific objectives of the study are:

- To assess export diversification performance of the country by analyzing export share of major commodities (traditional commodities versus non-traditional commodities).
- To evaluate the contribution of horticulture industry in export diversification to stabilize the export earnings of the country (its export share performance),
- To identify challenges and threats in the expansion of the country's horticulture industry in the country and in its international market competition and,
- To assess opportunities, strengths and perspectives in expansion of horticulture production and export of the country.
- Finally, to suggest necessary measures that need to be taken so as to improve the performance of the industry's production and export, and its contribute in export diversification.

1.4 Research Questions

It is a controversial issue for Ethiopia in that being endowed with a variety of natural resources abundantly and good market strategy to expand horticulture production and export, the sector contribution to national export diversification is still insignificant (EIA, 2008). The horticulture industry (particularly fruits, vegetables and flowers) is still at its nascent stage compared to other horticulture producing and exporting African countries. It is intertwined with many problems. In line with this, this paper will deal with:

1. Is horticulture industry optimally contributing to the Ethiopian export diversification recently?

2. What are the major bottle necks against expansion of horticulture industry in Ethiopia?

3. What opportunities are exist for expanding horticulture industry in the country? And

4. How can the horticulture industry optimally contribute to the export diversification of the country?

1.5 Significance of the study

In countries like Ethiopia, where agriculture export is dominant and have comparative advantage, horticulture development can play a significant role in improving export performance through export diversification. The rationale for the study is based on considerations of: (1) Ethiopia needs to expand and diversify its narrow base of export sector recognizing that the existing situation leaves the economy vulnerable to downturns in prices or demand for its exports (the role of export growth is clearly acknowledged in the government of Ethiopia's recent statement of its national development strategy (Growth and Transformation Plan (GTP), 2010), (2) horticulture produces high output value per hectare by making intensive use of land and labor, especially women, (3) the amount of horticultural products exported from Ethiopia is currently at a minimal with respect to the international market demand for the country's product, (4) the country has both natural and man-made comparative advantages for horticultural production and export compared to other horticulture producers and exporters and (5) the demand/ world market for horticultural produce is large and growing. In line with this view, carrying out a continuous research and development around horticulture production and export has a vital role.

Since this study focuses addressing opportunities and challenges in development process of horticulture industry in the country, it will identify and forward policy implications to concerned body (the policy makers, stakeholders, as well as to potential investors who will want to engage in such activities) on possible ways for its sustainable growth. The study also will have significant role for those who are interested to carry out further investigations in the study issue and area.

1.6 Scope of the Study

The study is designed from the angle of assessment of challenges and opportunities in expansion of the country's horticulture production and export and its contribution to the Ethiopian export diversification. Among the industry's produces and export, the study focuses on only flowers, fruits, and vegetables for they secure high amount of foreign exchange for the country. So as to understand overview and indication of challenges and opportunities related to Ethiopian horticulture industry of the country, a case study was under taken on horticulture farm clusters of Sebeta area, Finfinne Surrounding Special Zone. The area is selected purposively for that it is one of areas in the country where the highest concentration of horticulture farm clusters are located.

1.7 Limitation of the study

The serious problem faced in the process of conducting this study is lack of available data registered as needed. Moreover, the data available are different on the same issue from organization to organization.

1.8 Organization of the Paper

The paper is organized in to six chapters. The first chapter is introduction part, which includes background, statement of the problem, objective of the study, research questions and significance of the study, scope, limitation and organization of the study. The second chapter consists of a review of relevant theoretical and empirical literatures. The third chapter focuses on research methodology employed and conceptual framework. The fourth Chapter consists of description of the study area, farm clusters and historical development of horticulture industry in Ethiopia. The fifth chapter contains data presentation, interpretation and analysis. Finally, the sixth chapter is about summary, conclusion and policy implications.

CHAPTER TWO: REVIEW OF THE RELATED LITERATURE

This chapter deals about operational definition of technical terms used in the study, theoretical and empirical reviews literatures.

2.1 Operational Definition of Technical Terms

The following technical terms are defined within the context in which they are employed in this study.

Challenges: part of reality which should be faced in a way to achieve a desired goal. In the context of this study, challenges are any real difficulties or situations which an investor may face in expansion process of horticulture production and export.

Export diversification: changes in the composition of exports or in relative contribution of each product to total export earnings with a view to widening the scope for products with good prospects that are not affected in the same manner by fluctuations of international prices.

Horizontal export diversification: entails alteration of the primary export mix in order to neutralize the volatility of global commodity prices.

Horticulture: a science or art of growing and marketing flowers, fruits, vegetables or ornamentals. Etymologically, "horticulture." can be broken down into two Latin words: hortus (garden) and cutus (tilling) meaning ''garden tilling'' (www.kenya Neb.com/hor/flo.htm).

Monoculture: is the practice of producing or growing single crop over a wide area and export only it.

Non-traditional agricultural commodities: commodities which are by nature income elastic and necessary price so that their price is not much affected by with world market prices fluctuation.

Opportunities: natural and man-made guaranteed business chances which can be exploited by horticulture producers and exporters to enhance expansion in horticulture industry.

Traditional agricultural commodities: primary agricultural commodities which are by nature non-value added and income inelastic so that their price changes with world market price fluctuations.

Vertical diversification: involves contriving further uses for existing and new innovative commodities by means of value added ventures such as processing and marketing.

2.2 Theoretical Literature

2.2.1 Review of General Trade Theories

In trade theories, there are distinct ideas that have explained how trade benefits the trading partners. Accordingly, during the Mercantilist period, trade was viewed beneficial only if it leads to surplus, (excess of export over import). Unlike the mercantilists' period, nowadays, it is generally agreed that trade will enable at least one of the trading countries to consume beyond their autarky that shows an increase in welfare of the societies. But what is the source of trade has become the central question for trade theorists. In explaining the source of trade, Adam Smith's absolute advantage which states that with free trade, each nation could specialize in the production of those commodities in which it had an absolute advantage (or could produce more efficiently than other nations) and import those commodities in which it had an absolute disadvantage (or could produce less efficiency) is a pioneer work. Later Ricardo explains that countries need not have absolute advantage over the production of goods in order to trade. Ricardo says comparative advantage is sufficient. These theories were not able to explore the source of comparative advantage (Salvatore, 1990).

The Hecksher-Ohline (H.O) trade theory explains the source of comparative advantage. In its proposition, it says a country will produce and export the commodity that uses its abundant resources intensively. Therefore, the source of comparative advantage is factor abundance. This is to mean that labor abundant countries, most LDCs, produce and export goods that uses labor

forces intensively, while capital abundant countries produce and export goods that uses capital intensively. According to this theory, the difference in price structure is the cause of international trade. Thus, a given country has a comparative advantage in the production and export of that commodity, which uses more intensively the country's relative abundant factor of production (Ibid).

Apart from the relative availability of labor, capital and natural resources (i.e. factor endowment) the existence of product differentiation, economies of scale, and technological gap and product cycles can also be the basic determinants of international trade. Although there is no doubt on the importance of trade in the international economy, one of the concerns of the LDCs is the unsatisfactory nature of economic relations between DCs and LDCs. Classical economists claim international trade for its unfavorable terms of trade where LDCs export raw materials and import manufactured goods. However, the Orthodox economists who used to believe in the comparative cost advantage theory proved that international trade could be applicable both to DCs and LDCs (Todaro, 2003).

Despite the above controversy, there has been concern regarding as to whether or not LDCs could accelerate their economic development by expanding their export in international trade. Studies support the importance of trade for exploitation of comparative advantage in resource endowments. But both the Ricardian comparative cost advantage and the H.O relative resource endowments theories of trade seem inconsistent in relation to LDCs, especially, African countries. This is because the LDCs mainly exports primary commodity are subject to deteriorating terms of trade. As a result, specialization in a large scale primary export and importing manufactured goods would fail to reap any long gains from trade. But there are many debates on this view. LDCs argued that the so called comparative advantage in the agricultural primary goods production and exports was not the result of natural strength, but it was artificially and deliberately created by the colonial pattern of production (Ibid).

As a result, the international trade did not benefit and sometimes did not create a way for economic progress of LDCs rather LDCs remained as a source of progress of DCs. This unequal exchange relationship between DCs and LDCs has led to several undesirable consequences to

LDCs that is poverty, which is a cumulative effect of plundering and looting of LDCs by the DCs. As a result, most of LDCs remain excessively depending up on agriculture for their economy, as a source of income, employment and livelihood for the millions of their people and primary/traditional agricultural commodities as a chief source of foreign exchange earnings. Moreover, they need them for food and/or as inputs to various industries, some of which might have not been able to operate without the raw materials, the primary exported commodities from LDCs (Mannur, 1983).

Rowe (1965) argues that the fact that LDCs are engaged in producing a few primary agricultural commodities for export does not only provide them with the advantages of specialization but also with some chronic bottle necks in the development of their economies. LDCs require a great number of goods and services to be imported. Most of their imports account has to rely for settlement of heavily on agriculture, which is dominated by a few traditional agricultural commodities. The term of trade of these countries fluctuate with the tide of the prices of their respective primary commodities. He also argues that the trouble with the primary commodities is not that there is no adequate demand for them in the world market but that they encounter marketing problems. Their prices are unstable and thus, income from them is not reliable. In the LDCs a great majority of the population lives by the proceeds from and/or depends on, the agricultural primary commodities. As a result, the fluctuation of export earning of primary commodities affects their national economies.

Moreover, the conventional trade theory implies that LDCs with relatively more unskilled labor and land endowments should continue to produce and export raw materials, fuel, minerals and food that use the above factor more intensively and import manufactured goods, which use relatively more capital and skilled labor. Such arrangements cause all or most of the dynamic benefits of trade and industrialization to accrue to DCs leaving the poor economies of LDCs even poorer. Therefore, most LDCs attack the traditional theory of trade on the basis of comparative static and its irrelevance to the development process of LDCs (Todaro, 2003).

2.2.2 Export Performance and Economic Growth Linkage

In today's world, the link between export performance and economic growth becoming a main interest for development economists. Because trade can be an important stimulus to rapid economic growth by promoting greater utilization of idle human and capital resources, increasing foreign exchange earnings, and expanding access to technological knowledge. The importance of export performance, as pointed out by UNCTAD (2005a), includes: Export development allows the country to concentrate on investment in those sectors where it enjoys a comparative advantage; the resulting specialization is likely to augment overall productivity; the larger international market permits economies of scale to be realized in the export sector; worldwide competitive pressures are likely to reduce inefficiencies in export area and results in adoption of more efficient techniques in the overall traded goods sector, and a larger export sector would make available more resources necessary to import in a timely fashion both physical and human capital including advanced technology in production and management, and the training higher quality labor. Other point for theoretical justification discussed by UNCTAD (2005a) is that, shifting resources in to export production creates positive influence on growth. If the export sector is characterized by higher productivity than the rest of the economy, then countries with a larger export sector or which are reallocating resources to the export sector should experience rapid economic growth.

2.2.3 Problems of Commodity Dependency: High dependence on export of one or few export primary/traditional commodities leaves countries extremely vulnerable to changing market conditions. The two linked problems associated to commodity dependency experienced by LDCs for most primary traditional agricultural commodities export are: volatility of prices in the short-run and the decline of prices the commodities (UNCTAD, 2003 and Robbins, 2003). The two problems will be explained by the following paragraphs.

2.2.3.1 Volatility of Commodity Prices: The fluctuations in export earnings of African countries often seen as the causes of the booms and slumps in the income and unemployment of these countries (Chaudhuri, 2001). Typically, booms do not translate into sustained increases in income whereas, crashes produce devastating and long-lasting declines. According to UNCTAD (2003), volatility in commodity prices are caused by supply chocks. A step or prolonged slumps in commodity prices can be very expensive for LDCs, making debt repayment difficult.

Furthermore, volatility in commodity prices also aggravates macroeconomic management, frustrates investments and increase uncertainty in exchange rates, investment returns and import capacity (UNCTAD, 2003:19). Prices of primary commodity export goods exhibit a very high degree of volatility. The World Bank (1999), shows that the prices of many commodities fluctuated from below 50 percent to above 150 percent of their average prices during 1983-1998. Given the volatility and downward trend of export prices, the majority of developing countries, especially in SSA, appear highly vulnerable to commodity shocks because of their dependence on traditional commodity exports. Therefore, the high concentration of African exports on a few primary commodities means that swing in the price of an export item would amount to a large fluctuation in total export earnings (IMF, 2003). Evidences show that the lowest income countries have a higher incidence of shocks than other DCs and tend to suffer larger damages when shocks occur (Cohen, 2002).

A further problem to notice is that, in the case of agricultural commodities that it is difficult for LDCs and farmers to take advantage of booms in commodity prices. Supply and demand of for agricultural commodities, especially perennial crops, responded slowly to price changes. The time needed for crops to ripen and be harvested cannot be compressed. This implies that even when farmers increase planting during a price boom, by the time production actually increases, prices usually fall as the increased supplies quickly outgrow demand in importing countries. In addition to this, demand for primary agricultural products do not grow significantly in response to lower prices (Maizels, 1987; Kaldor, 1987).

Policies for dealing with commodity price and terms-of-trade shocks can be categorized into two sets of actions: preventative actions and mitigating actions. While preventative actions aim at reducing the probability of terms-of -trade shock; mitigating actions are designed to minimize the impact of shocks once they occur (IMF, 2003). Due to many reasons mitigating actions are almost unachievable in LDCs. To see a short account of the most common mitigating actions undertaken, often unsuccessfully in the past is that, many international commodity agreements (ICAs) have established to reduce price vitality through buffer stock operations and to reverse the steadily falling items-of-trade through the mechanisms of supply management have usually

provide to be ineffective. This ineffectiveness is due to disagreement among members in production costs, market shares, funding capabilities, export quotas and control, the shortage of insurance mechanism market-based-risk management in LDCs and short fall of the major compensatory financing programme of European commission for terms-of-trade shocks (IMF, 2000, UNCTAD, 2003 and Robbins, 2003).

On the other hand, Preventative actions for commodity shocks are few, because most low-income countries are price takers in international markets. The most effective preventative action is diversification of the country's export base, so that volatility in the price of a few commodities does not constitute a terms-of-trade shock for country (IMF, 2003). This paper also focuses on preventive action through export diversification particularly horizontal export diversification horticulture industry expansion.

2.2.3.2 The Decline of Agricultural Commodity Prices: It is widely recognized among scholars and international organizations that the decline in price of primary agricultural commodities has been detrimental to the development of most poor countries (Schiff, 1994 and Robbins, 2003). Although some authors take a critical look at the claims of primary commodity dependency (Ludema, 2001), the declining of commodity prices has proven to be one of the most serious problems for African development (Gibbon, 2005:2). Small fluctuations in the export earnings of LDCs, arising from falling prices of agricultural commodities, can offset the entire value of foreign assistance provided to LDCs in any one year. According to Thirlwall (2003:62), a 10 percent fall of export earning is equivalent to the annual flow of Official Development Assistance (ODA). For instance, from 1980 to 2000, world prices for 18 major exports commodities fell by more than 25 % in real terms. The decline was especially steep for cotton (47%), coffee (64%), rice (61%), cocoa (71%) and sugar (77%) of which have lions share in price and volume export of these countries. Robbins (2003) reports that in the period from 1980 to 2002, the international prices in real terms of major tropical agricultural products fall by an average 86 percent. The study estimate that developing countries as a group would have earned $ 243 billion in export revenues in 2002 if the real prices of ten of those products had been maintained at the levels of 1980.

The World Bank (2004) has recently concluded that such improvements have been wholly insufficient to compensate for such long periods years of price decline. As a response to the decline of commodity prices and thanks to increased productivity, may LDCs have increased the export volume in an attempt to maintain the same level of foreign exchange earnings. But the trend indicates that the decline of commodity prices of these crops has been so significant that the increase in volume could not compensate for the decline of commodity prices. Furthermore, increasing the export volume fosters the decline of commodity world prices because supply is higher than demand. Many different explanations have proposed for the steep decline in commodity prices. These include the emergence of major producer and exporter, the depreciation of national currencies, "under consumption", exploitation of market power by retailers, technological change, and domestic market liberalization and the abolition of parastatal marketing agencies of LDCs. However, the basic explanation lies in the market fundamentals of supply and demand (UNCTAD, 2003:14).

According to FAO (2003a), price determination models, the operation of market fundamentals has not changed. Specifically, it is the recent rapid growth in global supplies against sluggish demand growth which has led to falling prices, and the low price elasticity of demand means that these prices falls here severe. Suggested solutions to the crisis have been varying. These have included supply control, demand promotion, guaranteed prices, product differentiation, support for diversification (and trade liberalization to provide opportunities for diversification), vertical coordination or integration through the value chain, raising the profile of commodity problems in international flora, and fair trade initiatives (FAO, 2004:6). None of them has provided with a sustainable and long-term solution to the decline of agricultural commodity prices.

Generally, various mechanisms have been proposed or implemented for ameliorating the impact of the decline of commodity prices. These mechanisms included producers' agreements, insurance, futures, options and financing short-term compensatory measures. However, these mechanisms only offer a short-term solution and as already noted, they did not prove to be always feasible solutions. The long-term solutions must be to reduce the exposure of poorer developing countries to external and internal shocks by diversifying their exports away from commodities (Page and Hewitt, 2001).

2.2.4 Diversification of Agricultural Production

According to Dorsey (1999), diversifying into different productions seems to be the best way to reduce in the long-run the dependence on primary agricultural commodities and the associated vulnerability to negative price declines. Three diversification routes available to LDCs are horizontal diversification into alternative crops, vertical diversification into agricultural products and processes aimed at capturing a higher proportion of the value chain, and diversification into non-agricultural activities that exploit comparative advantage such as manufactures and devices (Taylor, 1992).

Among them, this paper focuses on horizontal diversification in general and the diversification from bulky primary/ traditional agricultural commodities into high-value horticultural products in particular. Horizontal diversification seems to be the more suited to low-skilled African rural farmers and it can be promoted even with existing infrastructures. On the other hand, the other two options need an initial capital that is not always available to LDCs' rural smallholders. Diversification into new areas of economic activity is the only solution in the long run and should, therefore, be a long-term objective of development strategies. As LDCs context diversification must be a process that should accompany the structural transformation of agriculture rather than an objective per se of agricultural development (Pakpahan, et al. 1992). It is what stakeholders do to pursue their various objectives in response to changes in the markets or in technology. The objective of a well-diversified agricultural system is to gain sufficient flexibility to adjust to the changed conditions smoothly and avoiding price or structural shocks (Ibid).

As already noted, diversification of production in the agriculture sector can be a viable solution for both volatility and decline of commodity prices. In the case of agricultural commodities and in the context of sustaining rural livelihoods in poorer LDCs, diversification means adding value to existing commodity exports, diversifying the same product or promoting alternative products.

Farm diversification refers to diversification of on-farm activities. An example of farm diversification would be the introduction of a commodity, such as organic vegetables, or value-added products. Generally, diversification is regarded as a way of reducing a country's dependence on a restricted range of primary products exported before processing (Ilbery, 1991).

Diversification of production also increases employment for the rural poor (von Braun, 1995). Abdullah and Ali (2002) demonstrated the potential for rural employment that arises from diversification out of cereals to high-value commodities by comparing the labour intensity in both systems. High-value crops, compared to cereals, are more strongly interlinked with other sectors of the economy in terms of providing their outputs and receiving inputs from these sectors, and there is a stronger multiplier effect of the initial increase in income. It was estimated that a unit increase in initial income in cereals has a multiplier effect of two, while similar increase in vegetables will generate a multiplier effect of three (Ibid). For these reasons, farmers all over the world may find it profitable to diversify their output into horticultural production. Hence, between 1960 and 2000, the area under horticultural crops worldwide has more than doubled (Weinberger and Lumpkin, 2005). Demand for horticultural produce is rising in both domestic and international markets (ibid).

2.2.5 Trade Diversification: Trade diversification refers to changes in the composition of exports or in relative contribution of each product to total export earnings with a view to widening the scope for products with good prospects that are not affected in the same manner by fluctuations of international prices. This entails changing the composition of exports with the purpose increasing the country's foreign exchange earnings (IMF, 2000). Export diversification can take place in different forms and dimensions. Usually by changing the share of commodities in the existing export mix by including new commodities in the export portfolio, a country can attain export diversification. In this case, there are two well-known forms of export diversification that are common in the trade literatures:- horizontal diversification which entails alteration of the primary export mix in order to neutralize the volatility of global commodity prices, and vertical diversification involves contriving further uses for existing and new innovative commodities by means of value added ventures such as processing and marketing (Ibid).

2.2.6 Non-Traditional Agricultural Commodities in Attaining Export Earnings Stability

Export growth is a crucial issue for the development of a nation's economy. In addition to export growth, the stability in the export earnings is also important since instability disturbs the development planning of a country (Stanley, 1999). Most of the export earnings instability comes from world market price fluctuations and external shocks that directly affect the export volume like weather factors, pests and diseases. Both factors have a significant effect on export earnings instability. For countries that are mainly depend on primary agricultural commodities for their export earnings and with minimum capacity to establish agricultural processing industries (vertical diversification) that add value to primary goods, and produce quality export products (horizontal diversification) of the export base seems indispensable to tackle the export income instability problem (Alwang and Siegel, 1994;Bigman, 2002).

This argument is supported by so-called structuralists who advocate export diversification because the reliance on a few primary products leads to declining terms of trade and earnings instability (Stanley, 1999). This view contrasts with the classical economic idea that states countries should specialize given their comparative advantage in resource base and other opportunities in trade (Stanley, 1999). In the case of Ethiopia, the classical economists' line of argument is not totally against horizontal diversification. This is due to the fact that Ethiopia has diverse agro-ecological zones that can easily fit to the production of different agricultural export commodities with minimum adjustment to the existing production systems. Diversification of the export base does not necessarily result in stable export income (Alwang and Siegel, 1994). To attain export earnings stability diversification should aim at commodities with stable income and products with earning fluctuations that are negatively correlated with the earnings instability in commodities with the largest share in the total export income.

2.2.7 Definition of Horticulture Industry

According to Clayton (1985), horticulture is defined as a branch of agriculture that deals the scientific cultivation of fruits and vegetables, flowers, shrubs and all the plants grown for ornamental purposes as well as spices and medicines. Horticulture products also are perhaps mostly easily defined as what they are not. They are not cereals or the major industrial crops. Generally, but not exclusively, they are not staple crops. Important characteristics of horticultural crops are that they are mainly eaten for their contribution to the flavor and interest of food, are not basic food commodities, consumption level vary depending on the selling price, are not traded in large volumes and there is a limited market, are perishable, and traded in a very free market where price is determined by supply and demand. Such characteristics of horticulture products therefore, needs due attention in order to drive profitability and sustainability (Dixie, 2005). The horticulture products exports subject to this study are only fruits, vegetables and flowers. The fruits are mainly tropical and sub-tropical ones and the major one are banana, orange, papayas, grapes mandarins, avocadoes strawberries and others. The major vegetables for exports include potatoes, tomatoes guava, onions, shallots, leaks, fresh chick, and sort of leafy vegetables. In group of flowers, the three kinds major flower exports presently are roses, summer flowers and cut flowers (www.Intracen.orgibrt/bb cut flower).

2.2.7.1 Advantages of Horticulture industry

2.2.7.1.1 Fruits and Vegetables: Horticultural crops that of vegetables and render different benefits. They provide widely acceptable sources of essential vitamins (A, C, Niacin Riboflavin and Thiamine) and minerals (calcium and iron) as well as supplementary protein and calories. Some vegetables such as roots and tubers and leafy green are capable of producing protein and calories at the rate per hectare per day comparable to those of the most efficient cereal crops. Vegetables promote intake of essential nutrients from other foods by making them more palatable. It provides dietary fiber to improve digestion and health. They are also essential for properly balanced diets and especial for children who are nutritionally the most vulnerable groups in the population (Ibid).

Fruits and vegetables are universally considered as vital elements in a healthy diet. Not only they provide crucial vitamins and proteins, but also have health giving qualities. The fiber content of horticultural products is believed to be valuable source in preventing heart disease and bowel complaints. Vitamin C can help provide stomach cancer and gum diseases. Vitamin D in the vegetable derived carotene reduces the incidence of lung cancer. On the other hand, lack of vitamin A causes irreversible eye blindness (FAO, 2003). Some horticultural crops like sweet potatoes have high carbohydrates while others such as banana and plantain have high carbohydrates and low fat contents, particularly important in the low fat diet. Additionally, horticultural crops are sources of many vitamins and minerals. Banana has vital importance to food security of millions of people. The crop is used as a source of cash source and supplementary food all the year round to the farm family. It also used as livestock feeding during serious drought periods. Horticultural crop has a much-diversified varieties and this help in environmental conservation. It is grown on slopes, in gorges and water banks where it is difficult to cultivate other crops such as cereals (FAO, 2003). The fruits and vegetables are consumed quite extensively in one form or another. Horticultural practice demand for intensive management is in order to increase production per unit area, then require for intensive labor use, input application and use of irrigation (I.P Mathew et al, 1994).

2.2.7.1.2 Flowers: In case of flower, people use it to express their emotions to their loved ones or closely related person. In many cultures, fresh cut flowers are deeply symbolic and stable food. The fresh cut flowers represent emotions and feelings and can deliver a message of emotions. The reasons for giving flower may include birthday congratulations, an apology, and a commiseration with someone`s grief of death or accident, for Valentine`s Day as a sign of affection and more recently, it becomes decorative feature of middle and higher-class households. Flowers have become one part of human relationship particularly in the Northern countries, specially these days (Sisay, 2001:57).

Generally, there is a global increase in the production and trade of fruits, vegetables and flowers. Horticulture production usually earns much higher farm income compared to cereal production. Cultivation of these crops allow for productive employment where the labor and ratio is high and contributes to commercialization of the rural economy. It also has a huge potential to diversify

export commodities to earn considerable foreign currency. Demand for the horticulture product is raising both in domestic and international markets. In developing countries, a desirable for year around availability and increased diversity of food, as well as a growing awareness of the relationship between diet and health contributed to the increased consumption of these commodities (Ibid).

Fruit, flowers and vegetable are usually lucrative compared to staple crops. Due to their added high value and income generation potential and a relative lack of economies of scale (compared to grain production and livestock) their production could be attractive. The production of fruits flowers and vegetables land is scarce, labour is abundant and markets are accessible. This is the prevailing situation in many countries of South and South East Asia, where the size of land holding is the lowest in the world, transportation infrastructure has shown dramatic improvement. The share of area under horticultural production has increased in many countries like South and South East Asia, China, Latin America and Caribbean, Sub-Saharan Africa, with strong in china for comparative advantage of low ratio of arable land per capital (Ibid).

2.3 Empirical Literature

2.3.1 Empirical Export Performance Review for Least Developing Countries

It is believed that the significance of export for LDCs lies mainly in the fact that, it enables them to obtain the badly needed foreign exchange to finance the imports of capital goods and services, which are necessary for their development. The relative importance of commodity export earnings varies from nations to nation. As a group, however LDCs are more dependent on foreign trade in terms of share in national income than the highly developed countries. This is shown clearly in the cases of the USA and Japan where the agricultural export share is 10% of GDP, whereas, most developing nation's average is from 20% to 30%. This implies the significance of primary commodity exports in those economies (Todaro, 2003). During the late 1980s, primary commodity exports contributes over 90% of the total exports of Sub-Saharan Africa and over 75% of the exports of most low and middle-income Asian and Latin American countries. This extreme dependence on export of primary commodities gives an important clue

as to why the export performance of the majority of LDCs has been relatively weak compared with the export performance of rich countries (Ibid).

African exports have failed even to maintain their world market shares in the commodities, in which they had comparative advantage, i.e. in cocoa, coffee, rubber, spices, tin and tropical vegetable and oils. African countries have lost their world market share to Indonesia, Malaysia and Thailand. Africa's export has remained largely unchanged since the early 1960s, with a heavy reliance on primary commodities, including oil. But this is also the common features of most LDCs. Unfortunately, export of primary products face a number of problems. The first problem is related with the concept of elasticities of demand. Most of the statistical studies of the world demand patterns for different commodity groups reveal that in the case of primary products, the income elasticity of demand is relatively low. That is the percentage increases in quantity demanded will rise by less than the percentage increase in national income. By contrast, for fuels, certain raw material and manufactured goods income elasticity is relatively high. For example, it has been estimated that, a 1% increase in LDCs incomes will normally raise their import of food stuffs by 0.6%, agricultural raw materials such as rubber and vegetables oil by 0.5%, petroleum product and other fuels by 2.4% and manufactured goods by 1.9% (Todaro, 2003).

According to Brook (1999), factors which contribute for the poor performance of export of LDCs can be summarized as: limited access to market, high transaction cost, poor infrastructure, lack of marketing knowledge, low investment, and limited skill and management know-how. Different scholars have suggested so many ideas as a way out for these problems and for the improvement of the export sector in LDCS. Diversification of export is one among them, as a solution and it is from this idea that the researchers tries to see the performance and prospect of the horticulture industry in Ethiopia's export sector.

2.3.2 Export Diversification Performance in Least Developing Countries

One of the chronic economic problems facing LDCs is export earning instability. Since 1970s a large number of LDCs have experienced strong volatility and secular decline in the international prices of their exports that constitute mainly primary commodities. It is argued that this economic problem affects domestic investment, consumer incomes, and government revenue and expenditure, and that, its consequences on less developed economies, are instability of key domestic economic variables, and retardation of economic growth. Among the causes said to give rise to export earnings fluctuations in these countries are the concentration on a very limited number of exportable commodities. Moreover, the export earning instability is found to be highly associated with the type of commodity that a country exports. World Bank had made a series study that ranges from 1900-1994 to compare the extent instability generated by primary commodities and manufacturing. The result of the study reveals that at every instant of a time the instability of primary commodities major exports of LDCs exceeds by far that of manufacturing (World Bank, 1996).

The remedy often suggested to tackle export instability problem is broadening export base as well as diversifying export away from primary commodities towards manufacturing. Indeed this suggested solution is in contrast with the concept of static comparative advantage. However, the logical foundations for such measures exist in the fact that demands and supply changing over time. Even if incomes in the improving countries are constant, tastes change over time with change in the psychological references of different generations of customers. This calls for diversification to generate new exports to cater for the changing over time in Europe and USA markets, which are the main customer of LDCs exports including Ethiopia (Ibid).

The need for diversification also emerges from the fact that domestic resources endowments are changing over time, resources such as new skills from education, better land utilizations changes in production technology and input mix, changes in the availability of imported inputs in response to foreign export constraints. Even if the resource base and inputs remained unchanged, a country's international competitiveness changes in response to the domestic macroeconomic environment, such as: rate of inflation and the competitiveness of other suppliers of identical

commodities. Such changes will be reflected in movements in the real effective exchange rate which signals a reallocation of resources in to new diversity of exports. On the other hand, specialization especially in primary commodities with long gestation period, like coffee, rubber, tea creates an inflexible export structure in short run. A country that specializes on such commodities cannot adjust the supply to short run or declines in international prices. More importantly, it is difficult to short predict whether they represent a secular trend that requires a reallocation of resources. It is, therefore, desirable to diversify in to commodities of different prices elasticity of supply as a deliberate policy to keep the productive structure flexible (Ibid).

2.3.3 Development of International Trade in Horticulture

Over the last decade, the development of international trade in horticulture has exhibited a number of trends. These include: consolidation of production, processing and exporting into larger and more professionally managed enterprises, a decline in the importance of small farmer production, the continuous shift to lower-cost transport model, for example, from air freight to sea freight, development of independent quality inspection and quality assurances services, targeting of sales on higher priced supermarket sector, the expanding food services sector and on the development of new markets, and demand for horticulture crops is sensitive to income and prices1997 (UNCTAD, 2003).

According to UNCTAD (2003), around 10 % of global trade is accounted for food exports, of which fruits and vegetables make up about 15%. For developing countries, food export account for roughly 60 % of all non-fuel exports. By the mid-1990s the total value of all fruit and vegetable products international traded amounted to over 100 billion US dollar ($) with developing countries accounting for about one third. The main market sectors are fresh products (about 70%), plus processed horticulture products (10%) and alcoholic drinks made from fruits (20 %). The overall value of this trade has been increasing at about 5 % per annum since the 1980s, but specific products and markets have been growing very much faster. There are even some "growth pockets", where the market value has doubled or tripled or in the five years between 1990 and 1995. Examples include mixed juices, miscellaneous food preparations, grape

and citrus, fresh tropical fruits: notably pineapples, mangoes, avocados and papayas, have been booming since the mid-1990s and registered an increase of 14% between 1996 and 1997.

2.3.3.1 Market for Fruits and Vegetables: The major market for vegetable and fruits are Western Europe (50%), United States (40%) and Japan (10%), collectively accounting for around 80 % of the value of import of this products, with developing countries suppliers holding about one third of this market. For almost all the major products these markets are verging on over supply, notable bananas, citrus, orange juice, and tomato paste. Prices are falling in real terms. The background growth in the volume of trade is about 3 % less than the increase in population. In this highly competitive environment the exporter must targets his efforts on those products or markets with the strongest opportunities to achieve the fastest rates (UNCTAD, 2003).

In Western Europe the supermarket sector dominates in the northern half of the continent, holding about 85 % of the market in Scandinavia, 60 % in Germany and about 55 % in France and the United Kingdom. They are the most powerful like in the production marketing chain they set the standards of trade and have formidable buying power. North West Europe is the primary import market in the world for fresh and processed horticulture products. Although there has been a decline in generalized grocers, the number of delicatessen shop catering to luxury eating habits has expanded. Europe is largely self-sufficient in vegetables but imports large volumes of fruits and fruit products from Africa as well as central and southern Africa (Ibid).

2.3.4 World Flower Market: Flowers are normally not thought of as a major agricultural commodity because they are not harvested as food or used for food processing. The demand for flowers depends on a discretionary income. Consumers spending on flowers increases as income rise, but unlike food, spending as a share of income usually doesn't decrease. Because of this, sales of floral crops are more responsive to income changes. The demand for cut flowers is highly seasonal. Sales are normally highest (peak) during holiday such as Valentine's Day, thank giving and Christmas. Though these are important events, cut flowers are increasingly popular throughout the year as indoor home and work place decorations (UNCTAD, 2003).

The custom of buying flowers for one's own use has become popular in highly developed western nation. This is evident by the fact that internationally flowers have become a lucrative industry in many countries of the world. According to UNCTAD (2003), European Union (EU) is the largest market for cut flowers in the world. People all over the world realize that flowers enhance the quality of life and influence human feelings more than words or other gifts. Globalization, cultural exchanges, and celebrations enhancing fraternity such as New Year, Valentine's Day, Memorial Day, Mothers' Day, Fathers' Day, Christmas, and weddings have induced people globally to use flowers as a means of sharing their feelings. Above all, these celebrations have acquired one-to-one pairing with flowers in some cases, e.g. roses to Valentine's Day and carnations to Mother's Day. Increased use of flowers and ornamental plants makes marketing of flowers a lucrative business.

The majority of cut flowers are produced in countries with dedicated infrastructure having facilities for airlifting to major distribution centers. According to the AIPH International Statistics Flowers and plants 2004 (2005), the Asia/Pacific region leads in flower production with a total production area of 244,263 hectares followed by catalysts and barriers to cut flower export Europe (54,815); Central/South America (45,980); North America (26,135); Africa (5,697); and the Middle East (3,845). The AIPH report estimates a global area of 360,000 hectares dedicated to world flower and plant production involving USD 60 billion in value terms and 100,000 companies. In terms of total area of production, Asia and the Pacific cover nearly 60 percent of the total world area (www.fao.org). The key markets for flower are Western Europe, North America and Japan (AIPH, 2005). The EU is the world's leading importer of flowers. The other largest importers are Germany, the USA, the UK, France, The Netherlands and Switzerland- accounting for nearly 80 percent of global imports.

The Netherlands is the world's largest producer of cut flowers and foliage valued at USD 3.6 billion, followed by Germany and Italy (www.syngenta.com/en/products). In addition, The Netherlands plays a major role in setting the global standard for daily prices through its computerized clock auction system and acts as the logistical distribution hub for Europe. In 2003, the Netherlands was the largest importer and exporter AIPH (2005), Kenya, Ecuador, Zimbabwe, Uganda and Zambia compete with Netherlands for market share in the EU.

Netherlands is the largest exporter of cut flowers (58%) of world exporters' value in 2003 and regarded as a center for flora product. Colombia follows in second place with 14% of world cut flowers exports in same year. Ecuador and Kenya rank in third and fourth with respective share of 6 and 4 percent. South American countries Colombia and Ecuador as well as Israel, are the major producers of carnations and roses. An increasing investment has also been witnessed in Kenya and other African countries (Hamrick, 2004, p. 4). The share of the developing countries in the total trade has consistently been around 20 percent during the last five years. There has been a growth in the number of producing countries particularly among the developing nations in Asia, Africa and Latin America (www.fao.org).

In the African continent, Kenya leads cut flower exports, expanding annually at 10 to 15 percent per year, followed by Zimbabwe. Flowers are becoming the driving force in the growth of Kenyan agricultural exports (Hamrick, 2004, p. 4). Export of roses (comprising 75 percent of flower export by weight) from Kenya was up by 19 percent in 2003 to The Netherlands auction market and increased the competition (Hamrick, 2004, p. 4). Existing farms are being expanded and newer ones are being created in countries such as Tanzania, Uganda, Ethiopia, Malawi, Zambia, and Namibia. However, established flower producers have found investing in more than one African country helps spread the risks (Hack and Heybroek, 1992).

Some countries are both producer as well as consumers. In Israel, Africa and South and Central American countries, cut flowers have been a product produced mainly for export with no thought of a potential domestic market. On the other hand, in Asia, whereas cut flowers were initially produced for export, the market potential has rapidly changed to include opportunities for supplying to the local market as well. This unique development is on account of the rapid strengthening of economies in the region, high population densities, and the changing consumers' perception towards importance of flowers in their lifestyle (www.fao.org). If we take the case of Ethiopia, it is only recently that the mere concept of flowers as a gift emerged. Thus, the domestic market is not yet mature. Notwithstanding, Ethiopia has attracted several foreign investors in recent years, for exporting cut flowers mainly to European markets.

Regarding type of products roses and carnations are the principal traded products, with the share of the former growing steadily and that of carnations stagnating. World rose imports accounted for more than 25 percent of all imports, while carnations had a 13 % market share, followed by chrysanthemums, orchids, and all other flowers around 50 %. Between them roses, carnations and chrysanthemums make up close to 50 % of the world cut flower trade. Down to consumers (importers) there are considerable differences by country in the number and type of flowers that people buy. Within countries purchasing patterns differ by geographical region and income strata: affluent people buy more bouquet with special flowers; less affluent people buy simple bunches of flowers (Ibid).

2.3.5 Overview of Horticulture Sector in Eastern and Southern Africa

For many countries in Eastern and Southern Africa (ESA), the export of non-traditional commodities, especially horticulture crops is offering enterprises opportunities to small and large-scale producers and employment for rural and urban labor. Therefore, this section mainly focuses the oldest horticulture producer and the leading exporter from the region (Kenya) and the significant exporter and land locked LDCs with relatively strong horticulture sector (Zambia). Kenya has a long tradition of growing horticulture crops for both domestic and export markets. The country is able to produce, from its agro-ecological zones a very wide range of horticulture product, from French beans, exotic fruits to cut flowers. The horticulture sub-sector is important in the economic development of the country. It contributes 23% of GDP and third foreign exchange earner. (UNCTAD, 2003).

Kenya has a mature horticulture sector. In the 1930s companies launched export of vegetables (tomatoes and carrots) to the United Kingdom (UK). After independence, the development of air freight allowed Kenya to export new products including green beans and flowers. During the 1980s flowers export grew, and expanded even more rapidly in the 1990s and after 2000. In 1980 flower and vegetable exports represented 8.1% (US dollar ($) 50 million) of Kenya's agricultural exports; by 2000 this share had risen to 26%, (300 million USD). Kenya's horticulture exports are now the primary source of foreign currency (almost 20% of the total exports), and are more important than both tourism (19%) and tea (18%). Fresh product exports are highly concentrated

in a few companies. At the end of the 1990s, the five top exporters of fresh vegetables controlled by 75% of the exports. Rose production is under taken by companies employing salaried workers as well as through small holders who sell their production to the larger companies. Horticulture export provides jobs to 100.000 workers and 100,000 small holders (Kenya flower council and fresh produce export association of Kenya). In Kenya cut flowers were grown on 2, 180 hectare in 2002, ((Ibid).

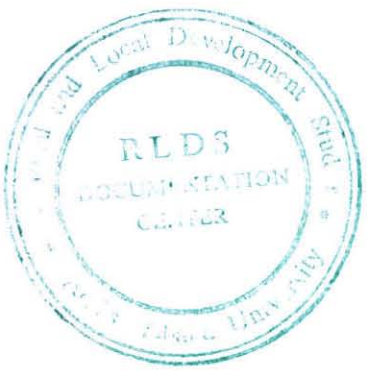
Kenya produces nearly US $ 200 million worth of cut flowers and foliage annually accounting for about 14% of country's exports ranking second in exchange earnings (after tea). The value of Kenya's flower export grew by over 300% between 1995 and 2002. In Zambia, exports of fresh vegetables and cut flowers rose from $ 6 million in 1994 to over $ 33 million in 2001, now accounting for almost 40% of total agricultural exports. Nearly all cut flowers grown in Kenya are exported to the EU (94%) making it the world's largest exporter to EU. In Zimbabwe flower exports represented almost 1% of the total export in 2000. In Uganda vegetable exports account for 1% and rose 4% of total exports (Ibid).

Between 1990 and 2000 EU annual imports of green beans and green peas from third countries increase by 8.6% and 11.1% respectively (in volume). The main suppliers to the EU of green peas are Kenya, Guatemala and Zimbabwe. The main suppliers of green beans are Morocco, Kenya and Egypt. Since 1988, ESA market share pea to EU has increased, while it has decreased for green beans. There are no restrictions on foreign direct investment in Kenya and Zambia in horticulture industry. The process of obtaining and export license is the same whether companies are national or foreign owned. The horticulture industry requires a high level of investment capital. To develop horticulture in other countries of the region resources are the limited and foreign investment is needed. Even small scale farms need investment for irrigation if they want to grow for export. In Kenya the environmental council delegation offers loans from the European investment bank to small and medium scale horticulture farms, at interest rate similar to European rates (3-4% versus 12-15%). In Zambia small holders have access to such programs but currently they don't use them because of contraction of export (Ibid).

Two additional areas that are relevant for horticulture trade are facilitation and services. Trade facilitation may be both cut-flowers and fresh vegetables. In Kenya exports need a Euro

certificate to export. This certificate is provided by the Kenya government, but is only valid for two days. Most of the exporters complain that the Kenyan customs authority add unnecessary administrative steps which are time consuming. Access to affordable double credit is perceived to be a constraint in this sector in some countries. Further services liberalization could theoretically bring about increased competition in financial services sector and reduce the cost of the credit financial services sector and reduce the cost of the credit in Zambia and Kenya. Thus, it would improve access by national companies to affordable credit, which would help reduce the competitiveness of Kenya in the EU market (Ibid).

Moreover, to enhance their competitiveness in EU market, ESA exporters often use EU consulting services. In Kenya, imported services are subject to a tax of 20% which increases costs for Kenyan exporters. The main comparative advantage enjoyed by ESA horticulture export is the duty free market access to the EU. This has led to the high level of growth enjoyed in the sector over the past decade. Duties of 5% on roses, 6.9% on green beans and 4.5% on peas will be applied on Kenya and Zimbabweans exports to EU. For green beans the situation is a bit of different, because the main competitor, Morocco, is subject to a duty from 6.9% to 10% a during the European production period and of 0% for the rest to the year. The LDCs in the ESA region will continue to enjoy duty free access to the EU market for both flowers and vegetables (Ibid).



CHAPTER THREE: RESEARCH METHODOLOGY

This chapter briefly discusses the research methodology employed in the research. It tries to cover explanations of the research design, types and data sources, methods and techniques of data collection, data collection instruments, sampling techniques, sample size, method of data analysis, ethical consideration and conceptual framework.

3.1 Research Design

To achieve the objectives and to answer the research questions of the study, here in this study, both quantitative and qualitative research design were employed. Triangulation of both research designs would enable to arrive at the targeted goal and at the same time help to generate many indicators related to horticulture industry of the country.

3.2 Type and Source of Data: Being guided by the objectives and the research questions both qualitative and quantitative data were used. Accordingly, the data were gathered from both primary and secondary sources.

3.2.1 Primary Data Sources: Primary data were the main input for this research in order to undertake it effectively. Primary data were obtained from EIA, EHDA, EHPEA and horticulture producers and exporters (farm clusters of fruits, vegetables and flowers) in Sebeta areas. The data were collected through survey (questionnaires, interviews and focus group discussions), archival records and personal observations.

3.2.2 Secondary Data Sources: In this study, primary data were complimented by secondary data. Relevant secondary data were collected from responsible government organizations. Specifically, data on export share of major commodities including that of horticulture industry produces were collected from NBE and MoFED and which itself compiled from EIA, EHPEA and EHDA. The other relevant secondary data related to export

diversification and horticulture industry production and export were also collected from different published books, journals, reports, bulletins, magazines, manuals, unpublished materials, websites, policy documents and other relevant sources. In addition to being used to analyze the ongoing situations, data obtained from these sources made the study more reliable and helped to have insights of the theoretical and empirical review of the subject under discussion.

3.3 Methods and Techniques of Data Collection: In order to obtain qualified data which assure the viability and reliability of the research, different data collection methods and techniques were employed. The combination of different data collection instruments and techniques were preferred to collect the valuable information. In the study, the following data collection methods and techniques were used.

3.3.1 Sample Frame: A survey method was employed to collect important information from selected individual investors the study areas-Sebeta. The study is based on sample as it is difficult to cover the whole study population in the country. The population of this study was divided in to two groups based on the role-played: horticulture producer exporters (investors) and governmental organizations, which are either directly or indirectly attached to horticulture production and export expansion and service provision. According to (www.ehpea.com.), until 2010, the total number of horticulture producing and exporting enterprises in the country reached 120. Out of these investors, 100 of them are those involved in production and export of fruits, vegetables and flowers again of which 88 of them are member of the association (EHPEA, 2010), which are the focus of this study.

Most of horticulture industry are located in the vicinity of Addis Ababa`s Bole International Airport. Since in the country, there is similar fashion in ruling and promotion/initiation for all investors of fruits, vegetables and cut-flowers, the researcher selected as a case study 12 farms located in Sebeta area Finfinne Surrounding Special Zone. Sebeta area farms were selected purposively because there is high concentration of fruits, vegetables and flowers farms in the area so that the data obtained from them were believed enable to acquire representative population with least cost, time and energy.

Concerning the data needed to be gathered from government organizations and farms association to obtain reliable and detail information, purposive sampling was used. For in-depth interview on the horticulture industry issues experts from the three government bodies (EIA, EHDA and EHPEA) were selected purposively. Specifically, experts of these organizations were selected purposely based on their experience or know-how they have in the area of horticulture production and export, availability and willingness of the experts. The table 3.1 below summarizes the lists of key informants contacted for in depth interview.

Table 3.1: Summary of Sample Size and Sampling Techniques for Key Informants

Nº	Name of elements of sample frame	Sample frame	Sample size	Sampling techniques
1	Horticulture investors	120	12	Purposive sampling
2	Government organization (experts) • From EIA • From EHPEA • From EHDA		1 2 2	Purposive sampling
Total			**17**	

Designed by the researcher (2010)

3.3.2 Key Informants Interview

In order to have clear picture of horticulture industry situation in the country, triangulating information obtained from different sources is highly valuable. To triangulate or cross check the reliability of information obtained from the demand side (horticulture farm owners) interview on similar questions for all was undertaken. Semi-structured techniques of interviews were used to collect data from these groups of respondents. The key informants were investors (farm owners), and experts from government organizations such as EIA, EHDA and farms members association EHPEA. Accordingly, for key informants (12) farm clusters of Sebeta areas, and from concerned government organizations (1) expert from EIA, (2) experts from EHDA, and (2) expert from the Association were purposively selected and interviewed separately. The list of horticulture farm

clusters at Sebeta areas under the consideration of study were 1) Lafto Roses PLC, 2) Ethio-Highland Flora PLC, 3) Selam Flowers PLC, 4) Saron Rose Agro farm, 5) EnyiEthio Rose, 6) TAL Flowers PLC, 7) Ethio Plant PLC, 8) Zaguwe Flower, 9) Omega Farms PLC, 10) Golden Rose Agro Farm PLC and 11) Sheba Flowers PLC 12) Dire Bi-Colour Rose.

3.4 Data Collection and Instruments: Employing multiple data collection instruments is favored in a study to improve the quality of data obtained (Robson 1993). Hence, in this study, four data collection instruments namely: questionnaire, interview, focus group discussion, and non-participant observation were employed to collect relevant data.

3.4.1 Questionnaire: Two types of questionnaires consisting of closed and open-ended questions for the samples were prepared. One of the two was questionnaire which consists identical questions were prepared and distributed to farm owners in order to gain information that can be analyzed, patterns found and comparisons made. The other questionnaire was distributed to experts who were selected from EIA and EHDA (government organizations) and from the association (EHPEA). In general, the questions revolved around the policies, service delivery, challenges, opportunities, strength and threats of horticulture production and export in the country. In the questions there were rooms for all the respondents to express their views with regard to the policies and the incentives provided and needed for horticulture production and export. The investors were also asked indirect questions to know the criteria they have before investing in any country which supposed by the researcher may forward the industry's to redesign the existing policy of the country. Finally, they were asked to suggest remedial solutions to the problems they have faced.

3.4.2 Interview: Structured and semi-structured questions checklists were prepared for the in-depth interview. Information from mentioned organizations and selected investors was collected through interview. Tape recorder was used for interview by asking permission. The interview questions checklists for organizations which highlight on various areas such as the efficiency of the services rendered to the investors and the problems they have so as to further improve their service delivery horticulture production and export were included. Investors' opinion on their

satisfaction of service delivered by these organizations and others was also gathered through interview. The interview questions for all the investors (owners) were the same.

3.4.3 Focus Group Discussions: So as to extract further opinions, attitudes, greater insights, share ideas and perceptions through group interactions two separate team focus group discussions (all experts from the selected organizations together as one group and two investors from fruits, vegetables and one from flower investor together as other group) were held.

3.5 Procedures in Developing the Instruments: Research papers with similar areas of this study were reviewed. With the help of hints from the studies and other related literature both the questionnaires and interview questions were developed in English language. Then, these questions and interview checklists were translated in to Amharic language for those informants who prefer to respond in Amharic.

3.6 Methods of Data Analysis

3.6.1 Secondary Data Analysis: The method of analysis is primarily determined by the nature of data collected and objectives of the research (Robnson, 1993). Accordingly, an attempt was made to employ the relevant data analysis tools which are in compliance with the very nature of the data at hand. The secondary aggregate data variable related to export diversification and specifically major export commodities including horticulture products of recent time were analyzed by means of descriptive statistical method (ratio, percentages and average) and the results obtained will be presented in tabular forms, graphs and figures.

3.6.2 Primary Data Analysis: As explained by Miles and Humberman (1994), qualitative approach is a source of well grounded, rich descriptions and explanations of process occurring in local contexts. The data gathered by the researcher were opinions, feelings and perceptions of respondents regarding challenges and opportunities in expansion of horticulture industry in the country and in specific Sebeta are. Qualitative data were presented in explanatory method to reflect the real situation. The data collected through sample survey were coded and entered and

analyzed using SPSS-15 version. In addition, the data generated through depth interview, key informant discussion and personal observation were analyzed using SWOT analysis, which is an acronym for strengths, weaknesses, opportunities, threats. SWOT analysis was preferred because it has power to generate and identify detail information about internal and external factors (that are favorable and unfavorable) to development of horticulture. The presentation and organizational framework of both qualitative and quantitative data were followed the sequence of specific objectives of the study. The data secured from different sources were synthesized and triangulated based on the framework of the study.

3.7 Ethical Consideration

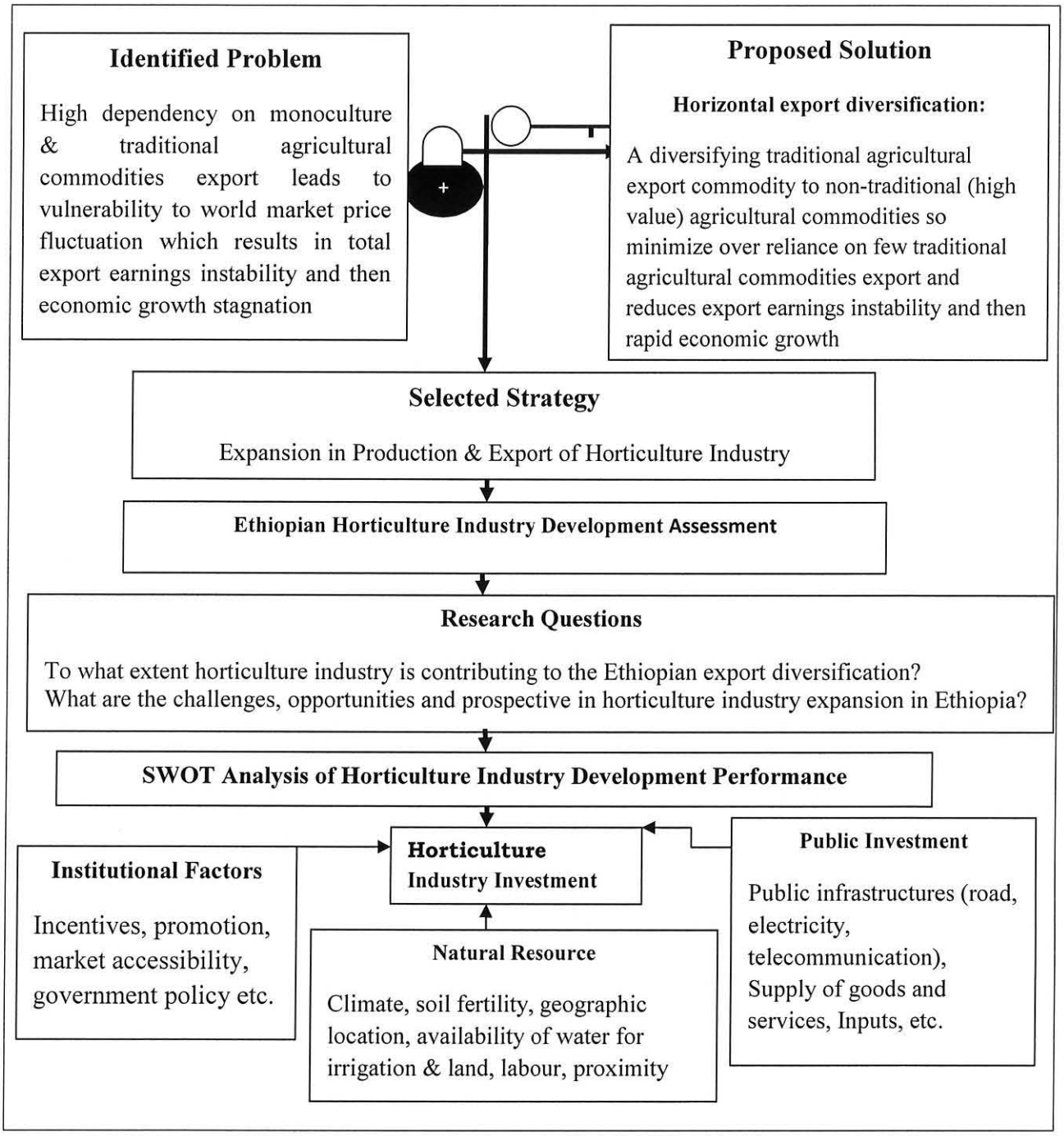
Obeying ethical rules is vital in conducting research. The researcher received a letter of introduction from the Institute of Regional and Local Development Studies of Addis Ababa University. Letter of permission has been secured from local officials that enabled the researcher to carry out the research and approach the informants. Participant of the study were informed about the objectives of the study emphasizing that the data will be used only for the intended academic purpose. The data were collected by employing various techniques with the consent of the participants of the study. Careful attention was regarding respecting the rights, needs and values of the study subjects, and maintaining confidentiality of the data and acknowledging sources of information.

3.8 Conceptual Framework

The following conceptual framework was used in this study. The conceptual framework is about linkage between export earnings stability and dependency on few in number and primary traditional agricultural commodities and export diversification by high-value commodities, specifically horticulture production and horizontal export in Ethiopia. The base for construction of this conceptual frame work is the objective of this thesis: challenges and opportunities in expansion of horticulture production and export in Ethiopia, and the sectors contribution in export diversification to obtain stability in export earnings. The main aim of this thesis conceptual frame work is to show consequence (export instability) because of dependence on export of traditional agricultural products and/or monoculture (as theoretical problem) and the need of horizontal export diversification (proposed solution) in to non-traditional export

commodities specifically horticultural produces (selected strategy)so as to attain export stability. (as proposed solution).

Figure 3.1: Schematic Conceptual Framework



Designed by the researcher (2011)

CHAPTER FOUR: DEVELOPMENT OF HORTICULTURE INDUSTRY IN ETHIOPIA

Before proceeding in to data presentation and data analysis, here, in this part, it is to describe the study areas and horticulture farm clusters, investment policy of Ethiopia and development of horticulture industry in Ethiopia.

4.1 Description of the Study Areas

4.1.1 Socio-economic Profile of Ethiopia

Ethiopia is found in the North-Eastern part of Africa commonly known as 'Horn of Africa'. The country is bordered by Kenya in the South, Somalia in the East, Djibouti in the North-East, Eritrea in the North and Sudan in the West and North-West. It enjoys a unique location at the cross roads between Africa, the Middle East and Asia. Ethiopia extends from 3^0 to 15^0North of the equator and 330 East of the Greenwich Meridian. It has area of 1.14 million square kilometer (EIA, 2010).

The country has a total population of 78.2 million with rural population 83.9% and urban population 16.1%. The population density of the country is 68.1 square kilometer (CSA, 2009). Its climate is temperate in high land and hot in lowland. Its temperature ranges from 200c to 300c and rainfall ranges from 200 mm to 2000 mm per year. Concerning rainy seasons, it receives big rains in June and August, and small rains in February and March. In Ethiopia, from the total area land, 69% is estimated to be suitable for agricultural purposes. The potential for irrigation in the country is estimated to be about two million hectares. The Ethiopian economy is based on agriculture, which contributed approximately 43% of GDP and 86% of foreign currency earnings IN 2008/09. The country is among the top performing economies in SSA. For the last six consecutive years (2003/4-2008/09) real GDP grew by an average of 11.5 percent per year ((NBE, 2010). Ethiopian currency unit is Birr and1USD is equal 16.68 Birr (March 4, 2011). Foreign currency in the country can be exchanged at the airport on arrival, at the public

and private banks, or licensed hotels. Ethiopia is a member of international organizations such as United Nations (UN), African Union (AU), Inter-Governmental Authority on Development (IGAD) and the Common Market for Eastern and Southern Africa (COMESA) ((Ibid).

4.1.1.1 Investment Policy of Ethiopia

Following the change of government in 1991, Ethiopia adopted a structural adjustment program (SAP) and began to implement extensive reforms to transform the previous command economy to a market oriented one. In the mid-1990s the government announced its development vision, known as Agricultural Development Led Industrialization (ADLI). In 1998, it adopted an Export Promotion Strategy (EPS). This listed priority sectors-such as manufacturing and agro-industries, which receive preferential treatment. The horticulture industry was not included in the list of priority sectors (MoFED, 2006).

Latter a comprehensive Industrial Development Strategy (IDS) was formulated in 2002/03. A key element of the IDS is the linkage between industry and agriculture, which is based on the broader ADLI. Another core element of the IDS is that sustainable and rapid industrial development can only be ensured if the sector is competitive in the international market. Hence export oriented sectors should lead industrial development and be given preferential treatment. Third, the IDS recognizes the role of the private sector as a driver of the industrialization process. Fourth, the strategy states the importance of government intervention not only as facilitator but also as a leader (i.e., in providing direct support, coordinating private sector). It sites two important mechanisms by which government could engage and promote the private sector; creating conducive environment and providing direct support for selected sectors. The strategy also lists priority sectors for direct government support (Ibid).

Ethiopia follows a market-oriented economic development strategy. In order to encourage, promote and expand private investment, the Ethiopian government has issued a liberalized investment code (Proclamation No. 37/1996 in 2004). The Government has established EIA and regional Investment bureaus to provide efficient and effective services for private investors, particularly foreign private investors. Hence, the EIA, in addition to the issuance of investment permits, provides one-stop shop investment services such as the provision of trade registration

and operating licenses for private investors, granting of work permits to expatriate employees and facilitating the acquisition of land as well as utilities by private investors (EIA, 2010). With the objective of promoting private investment and the inflow of foreign capital and technology into the country, the investment code provides the following packages of fiscal incentives to both foreign and domestic investors engaged in new enterprises and expansions.

All investors investing in areas eligible for incentives are granted 100% exemption from the payment of import customs duties and other taxes levied on imports of all capital goods including plant machinery and equipment as well as spare parts worth up to 15% of the value of imported capital goods. Depending on the location and type of investment, an income tax holiday ranging from 1 to 5 years is granted to investors engaged in new enterprises. Business enterprises that incur losses during the tax holiday period will be allowed to carry forward such losses, following the expiry of the income tax holiday period, from 3 to 5 years depending on the location and type of investment. Depending upon the choice of the investor, either a straight line or an accelerated method can be employed for the calculation of depreciation allowances. Any investor, foreign or local, is entitled to have deduction of expenses incurred for research, improvement studies or training from his taxable income. Any remittance made by a foreign investor from the proceeds of the sale or transfer of shares or assets upon liquidation or winding up of an enterprise is exempted from the payment of any tax.

According to the Urban Land Lease holding Proclamation of 1993, "The Government may grant freely or without public tendering urban land which is to be utilized for investments that the Government encourages or for social services establishment or for other purposes which directly benefit the public" (EIA, 2010). Recently, the Ethiopian government has further revised the investment code in order to open telecommunication services, power generation and defense industries to private foreign investment. The revised code has also granted additional incentives to investments in health and education sectors. Moreover, the code provides a provision for individuals who were Ethiopian by birth but changed their nationality to be treated, if they wish to, as domestic investors (EIA, 2010).

Joint Ventures: A foreign investor may team up with a domestic investor or company for a joint investment, usually in the form of a partnership, or private limited company or a share company. Nevertheless, under the Investment Proclamation No. 37/1996, a minimum equity capital of USD 300,000 is required from any foreign investor who intends to enter into a joint venture partnership with a domestic investor. The foreign partner is required to satisfy this minimum equity capital either in cash or in kind, in the form of capital goods such as machinery, equipment or other tangible assets, imported specially and exclusively to establish the enterprise or in both cash and in kind. The share of the domestic partner(s) cannot be less than 27% in a joint investment.

Wholly Foreign-Owned Investments: A foreign investor, who intends to invest on his own, except in engineering and other technical consultancy services, is required to invest not less than USD 500,000 in cash and/or in kind as an initial investment capital to start his business. The minimum capital required of a foreign investor investing in engineering or other technical consultancy services is USD 100,000 which may be in cash and/or in kind. A foreign investor investing in wholly foreign owned enterprises or joint ventures is not allowed to invest in areas reserved for Ethiopian nationals and domestic investors.

Guarantees to Investors: Ethiopia provides the following guarantees to foreign investors.

Repatriation of Capital and Profits: Capital repatriation and remittance of dividends and interest is guaranteed to foreign investors. Any foreign investor has the right, in respect of an approved investment, to make the following remittances out of Ethiopia in convertible foreign currency at the prevailing rate of exchange on the date of remittance: profit and dividends accruing from an investment, principal and interest payment on external loans, payments related to technology transfer or management agreements, proceeds from sale or liquidation of an enterprise, proceeds from the sale or transfer of shares or assets, and compensation paid to a foreign investor.

Guarantees against Expropriation: The constitution of the FDRE gives protection to private property. The investment proclamation also provides investment guarantees against measures of expropriation and nationalization. Expropriation or nationalization may only occur either in the public interest or in compliance with the requirement of the law. Where such expropriations are

made, the government guarantees to provide adequate compensation corresponding to the prevailing market value of the property and such payment shall be effected promptly.

Other Guarantees: Ethiopia is a member of the World Bank-affiliated Multilateral Investment Guarantee Agency (MIGA) which issues guarantees against non-commercial risks to enterprises which invest in signatory countries. Ethiopia is at any time ready to conclude bilateral investment promotion and protection treaties with any country and is in fact currently concluding such agreements with number of DCs. Ethiopia has also signed the World Bank treaty "the convention on settlement of investment disputes between states and nationals of other states.'' The government of Ethiopia is giving priority to export agricultural products including the horticultural sector. Ethiopia has a natural potential to grow almost all types of fruits, vegetables and flowers. Cognizant of its potential, the government of Ethiopia is giving high priority to the development of the horticulture sector. Accordingly, EHPEA in 2002, and EHDA in 2008 have been established, with the aim of promoting and supporting the development of the horticulture sector. Hence, the main horticulture industry development facilitators are EIA, MOTI, EHPEA and EHDA.

4.1.2 Socio-economic Profile of Sebeta Town

Sebeta is one of towns grouped under a special zone surrounding Finfinne. It is located in South West Showa zone of the Oromia regional. The town has a latitude and longitude of 8^0 55'N $38^0$37'E and elevation of 2356 meters above sea level. It is far away from Addis Ababa about 18 kilometers in south west. It is administrative centre of Alemgena woreda. It is a suitable area for investment. Hence, many horticulture farms are found surrounding Sebeta town areas.

4.1.2.1 Profile of Sebeta Area Horticulture Farms

The table below enlightens shortly the profile of fruits, vegetables and flowers located in Sebeta area about their year of establishment, their starting time of export and the land area they are investing on.

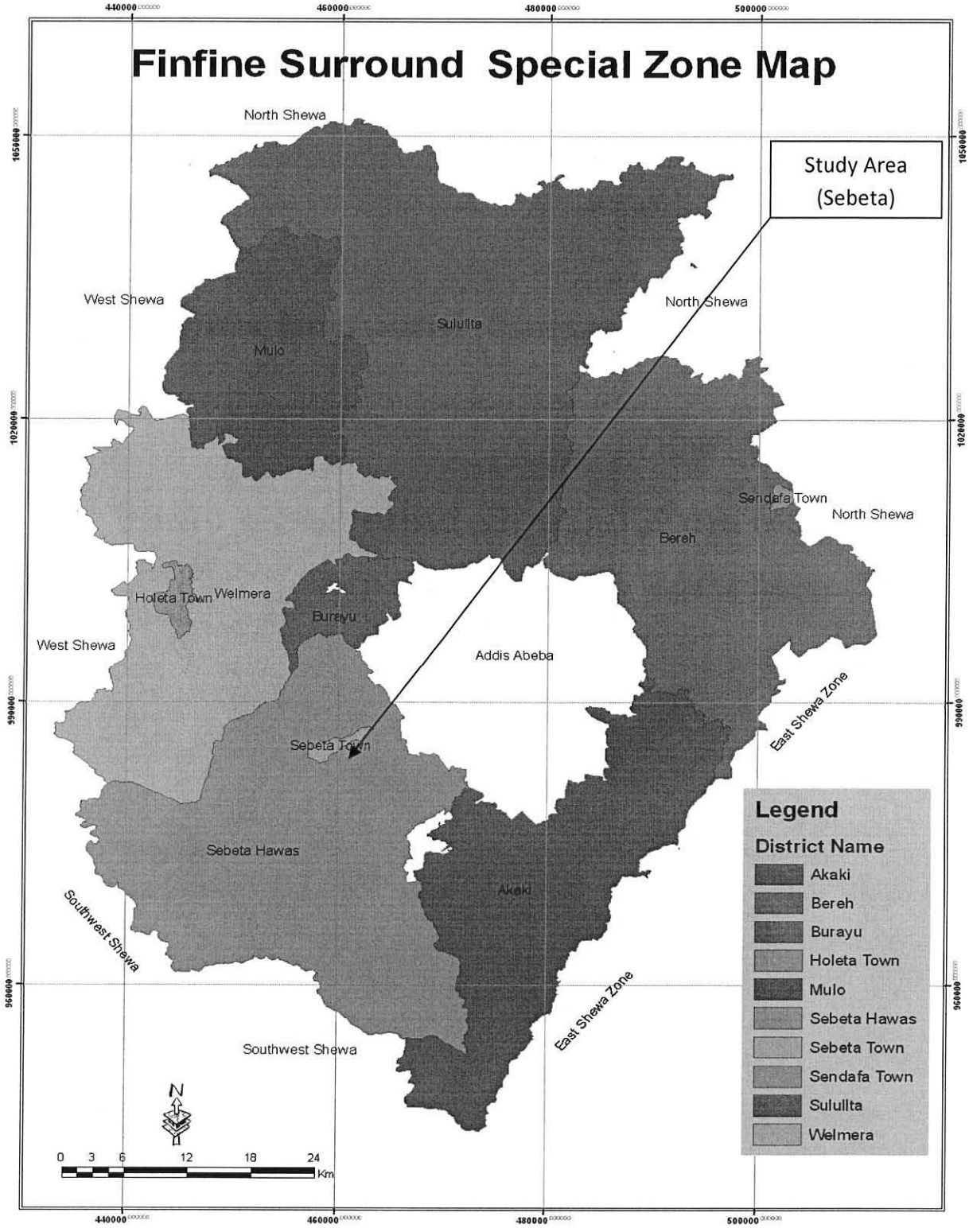
Table 4.1 Profile of Horticulture Farms

No	Name of Company	Establishment Year	Start of export	Land size	
				total	covered by g.h
1	Lafto Roses PLC	2004	2005	37	30.4
2	Ethio-Highland Flora	2003	2004	20	14
3	Selam Flowers PLC	2006	2007	17	11.9
4	Saron Rose Agro farm	2006	2007	20	14.5
5	Dire Bi-Colour Rose	2005	2007	25	17.5
6	EnyiEthio Rose	2004	2005	15	10.5
7	TAL Flowers PLC	2004	2005	20	16
8	Sheba Flowers PLC	2007	2008	20	15.5
9	Ethiopassion Agro PLC	1997	2002	20	14
10	Zaguwe Flower	2003	2005	22	15.4
11	Omega Farms PLC	2002	2005	20	17
12	Golden Roses PLC	2003	2004	42	29.4
	Total			**272**	**206.1**

Source: Ethiopian Horticulture Development Agency ***g. h= green house***

The table above only lists the farm clusters considered under study. The farms are selected for their production is exported so those generate foreign income. Moreover the data gathered from them is believed help to arrive on the objective of the study. In Sebeta area there are other horticulture farms which are engaged in propagation and production of horticulture produces but not involved in export process.

Map 3.1: Map of Finfinne Surrounding Special Zone



Map of Study Area (Sebeta)

4.2 Development of Horticulture Industry in Ethiopia

4.2.1 Fruits and Vegetables: Fruits and vegetables production in Ethiopia is scattered throughout the country on patches of land in peasant small holders. Whereas, large scale production and processing of fruits and vegetables is carried out only by state organizations, predominantly by the Horticulture Development Corporation (HDC), which has been carrying out production and marketing development activities since 1980 (http://faostat.fao.org/).

Fruits and vegetables production in the peasant sector is under mixed crops livestock farming system. Cultivation of land is made traditionally either by means of labour or draft animals. Fruits and vegetables production of individual peasant farm is mainly for self-sufficiency in the food and income. Nevertheless, state organization and currently few private sectors get their land mechanized for commercial purposes. The major producers of fruits and vegetables the country are small scale farmers, production being mainly rain-fed and few under irrigation (Girma, 2008). For most Ethiopian smallholders, fruit and vegetable production and export is not the main activity. It is supplementary to the production of main crops and the cultivation is on a very small plot of land (at a subsistence level) using traditional plough farm and is managed by a household. As a source of their livelihood, few business-oriented farmers and urban dwellers are beginning to cultivate small-scale vegetables for domestic consumption, especially in and around cities. This trend is increasing overtime and the activity is becoming income generating for farmers around and nearer urban areas. Vegetable suppliers and retailers are also increasingly linked to this type of activity (Tsegaye, 2010).

Moreover, the production potential of fruits and vegetables is not widely and evenly distributed across the various regions of the country. The cultivation is also seasonal and the supply is scanty and volatile even in areas where irrigation is possible. The knowledge gap on fruit and vegetable production techniques and processing technologies is wide. Also, knowledge of domestic consumers of the benefits of fruits and vegetables is confined to very few varieties of fruits and vegetables. Hence, domestic demand, with the exception of few widely known tropical fruits and vegetables, is generally small. In Ethiopia, people generally consume fruits and vegetables on a daily basis, without considering them as basic. Hence, the level of the crops

production and supply was low. Latter, state farms engaged in the production and supply of fruits and vegetables both to domestic market and foreign export. But the state enterprises gradually declining and are being replaced by emerging private sector actors (Ibid).

Commercial grafted seedlings of fruits and vegetables are distributed to different regions of the country and Upper Awash Agro-Industry (UAAI) Share Company is aggressively working in this area. In addition to the export of relatively low value fruits, currently, there are a number of trials undertaken to produce more high value fruits and vegetables for export. A foreign company growing strawberry has ventured into the drip irrigated production of this fruit and began supplying fresh export to the EU market (Rolien, and et al, 2009).The fruits and vegetables, and herbs sector is showing incremental growth. In (2008/09), the sector earned close to 40 million USD in foreign export.

4.2.2 Flowers: In early 1980s there was brief effort made by the state farms to produce and export summer flowers to Europe. The potential and basic know-how related to flower growing existed but was not well utilized until quite recently (Mulu, and et al 2010). Initial attempts to establish a flower industry emerged in the mid-1990s and the sector flourished in the early 2000s with large-scale export of cut-flowers. In 2003, only five farms were engaged in the production and export of flowers. The post 2003 period is characterized by high entry of firms and spectacular growth in exports. Annual average growth in number of firms and exports in 2003 to 2008 is around 380% and 638% respectively. In 2008, there were 81 flower farms employing around 50,000 workers (over 70% women). Ethiopia's flower exports reached 100 million USD and made the industry one of the top four sources of foreign exchange for the country.

The flower business in Ethiopia is relatively new. But the sector had shown a very dramatic growth in Ethiopia even surpassing most African nations that have an established operation long before Ethiopia starts growing flowers. The Ethiopian flower represents an extraordinarily fast growing and successful diversification into non-traditional export product. The flower business in less than a decade experience, and despite its late entry in to the flower export industry, Ethiopia became the 5th largest non-EU exporter to EU cut-flower market and the 2nd largest (after Kenya) flower exporter from Africa since 2007 (Mulu, and et al 2010). Riungu, Catherine

in her article entitled ''Ethiopia's flower sector outgrows Kenya'' in a leading Kenyan newspaper, National Media, in September 11, 2007 describes this particular performance thus:

''Ethiopia is now Africa's second largest flower exporter after Kenya, with its export earnings growing by 500% over the past year. This has left Kenya stunned, given that five years ago, the horn of African country was doing less than USD 20 million of exports compared with the East African giant's USD 300 million. It is estimated that this year, Ethiopia will close its books at USD 120 million, slightly less than half of Kenya's earnings. 'It has taken Ethiopia five years to achieve half of what we have in three decades'... Going by this rate, Kenya could be overtaken by Ethiopia in a decade'' he added as cited in Mulu, (2010).

The participation of the private sector in the flower business in Ethiopia is relatively new. The business started with highland rose-flower cultivation and export in the last few years. As a result, traditional agricultural plots of land covering about 833 hectares have been converted into high-tech greenhouse rose farming. Presently, the Dutch flower industry with ten thousand producers, seven flower auction centers and two thousand wholesalers is among the success stories and attractions in the Ethiopian flower business. The growing demand for flowers in the international market and the establishment of the EHPEA had a positive impact on the business (Tsegaye, 2010).

The government's incentive scheme including free VAT on import of capital goods has provided an encourage exports. Companies are also allowed to import consumer items duty-free. This has motivated investors to get into the rose flower business as a non-traditional export with more diversified sources of currency earning. The incentives in export business have attracted many private investors to get involved. Rose flower cultivation, which is relatively new to Ethiopia's flower business, with main export destination to EU markets (most of which is imported by Dutch flower auctions) is expanding. The low humidity and constant year round temperature have contributed for the production of high quality rose flowers and so far the business is fast thriving. The huge labor force absorption capacity in floriculture has created employment opportunities. About 16,626 permanent workers are directly employed and more than 66,000 seasonal workers have indirect benefit from the sub-sector (Tsegaye, 2010).

Ethiopia is producer of large budded and long stemmed roses with vibrant colors. Many varieties are available and the main production season is from October to May. Flowers are produced in modern farms around Addis Ababa and in the Rift Valley and are exported via Bole International Airport in Addis Ababa. Rose is the most widely produced variety. Many farms are already certified with implementing the EHPEA Code of Practice (indicator of quality standards). Flowers are exported mainly to Holland, Germany and UK well to Scandinavia, Russia, Japan, and the Middle East countries. Currently, there are five high quality cuttings producer and exporters (Ibid). Meskel Flower PLC was the first private farm to obtain approval in 1992 to start operation. Ethio-flora, Golden Rose Agro-farms, Ethio-dream, Summit Agro Industry, ENYI General Business, Mengesha Flowers, Teppo Agricultural Development and Trade Enterprise successfully started operations afterward. As per the EHPEA, rose, geranium, gypsophila, static, hypericum, chrysanthemum, limonium, carnation, and pot plants are the main flower types produced in Ethiopia; albeit the production in flower farms is dominated by roses. Variety of roses, namely, Circus, Renee, Red Champ, Orange Unique, Hollywood, Golden Gate, Sun Beam, Black Baccara, Grand Prix and Tropical Amazon are currently being produced for export. In 1992, Meskel Flowers, the first private company to specialize in the production of roses in Ethiopia and exported its first batch to Europe in 1998. Mengesha Flowers and Golden Rose Agro-farms followed Meskel PLC in production and export (Sisay, 2001).

Addis Ababa, having an altitude of about 2,000 meters, is the most suitable place for the production of high quality roses. Besides, its suitable climate, the necessary infrastructures are congenial here for the investors in the floriculture sector. The cultivation competes in quality with those from Holland as well as Colombia. Ethiopia's number one market for floriculture is The Netherlands, followed by Germany, Italy, the Scandinavian countries, and the Middle East. Ethiopia with a population base of over 71 million is also a potential domestic market for flowers, though it is not yet thriving. Ethiopia is doing well in cut flower export. Ethiopia needs to realize its competitive advantage in floriculture export. Kenya, Uganda, Tanzania, Zambia Zimbabwe, Malawi, Namibia and South Africa are the major African countries with whom Ethiopia has to compete with ((Sisay, 2004).

CHAPTER FIVE: DATA PRESENTATION, INTERPRETATION AND ANALYSIS

Here, in this part, it is to have critically analysis of export sector performance of Ethiopia, trend of the horticulture investment in the country, horticulture production and export performance, discussions on main Ethiopian horticulture industry facilitators and horticulture investment situation assessment (SWOT analysis) of Sebeta area, Finfinne Surrounding Special Zone.

5.1 Export Sector Performance in Ethiopia

Though Ethiopia has a long history in the field of international trade, the country has not benefited from the sector as much as expected. This is due to the country's poor export performance. The export sector of the country shows fluctuation in value and volume. Fluctuation problems may arise because the nations export sector is strongly dominated by a few primary/traditional agricultural commodities, which are exposed to international price volatility (NBE, 2010).

A major part of the total export of the country is accounted by agricultural sector in the form of raw material and semi-processed commodities. The most important ones are coffee, oil seeds, hides and skin, pulses, fruits and vegetables, chat and flower (NBE, 2010). Until recently, the trend in the country's export is characterized by monoculture (i.e., coffee), whose contribution is lions share from total export. Since coffee is one of the traditional agricultural products, its price is highly affected by the fluctuation of international market price. As a result, Ethiopian economy is fluctuating with price of coffee changes. Hence, the size and sign of balance of payment of the country is an evidence for this situation. Table 5.1 below shows the status of the country's balance of payment.

Table 5.1: Balance of Payments of the country (in million amount and unit Birr)

Particulars	2006/07	2007/08	2008/09	Percentage Charge	
	A	B	C	C/B	C/A
Trade Balance	-3940.90	-5344.80	-6278.70	17.50	59.30
Exports	1185.10	1465.70	1447.90	-1.2	22.20
Imports	5126.00	6810.50	7726.60	13.5	50.70
Overall Balance	85.20	-263.50	376.80	-243.0	342.30

Source: Calculated from data obtained from NBE (2010)

As the table indicates, in 2008/09 the trade deficit widened by 17.5 percent, as imports rose 13.5 percent while exports declined by 1.2 percent. As a result, the current account deficit expanded by 8.8 percent. A significant increase in net capital inflows, however, ensured a surplus in the balance of payments offsetting the widening effect of the current account deficit. Total merchandise exports reached USD 1.45 billion in 2008/09, about 1.2 percent lower than last year as export earnings from coffee, pulses, leather products and fruits and vegetables tended to flatter.

Hence , Ethiopia is need of the encouraging the capacity of the export sector by employing and utilizing important potential areas which can play a significant role for the export sector in particular and the economic development process of the nation in general (EIA, 2008). Currently, the share of dominant export items particularly, traditional commodities share to the total export is falling. This is due to the impact of export diversification (horizontal diversification) i.e., the establishment of new export areas took over some portion of the total export sector from traditional dominant export commodities to non-traditional commodities. This may provide a safeguard against the risk of fluctuation in the total export (NBE, 2010). Table 5.2 below shows the unit value share of major exports of the country.

Table 5.2: Unit Value of Major Exports of the country in tons

Items	2006/07	2007/08	2008/09	Percentage Change	
	A	B	C	C/B	C/A
Coffee	2.4	3.10	2.80	-8.70	16.70
Oilseeds	0.8	1.40	1.20	-13.70	55.60
Leather & leather products	5.7	6.70	10.3	55.2	81.7
Pulses	0.40	0.60	0.70	6.70	48.50
Meat & meat products	2.60	3.20	3.60	10.40	34.40
Fruits & Vegetables	0.40	0.30	0.30	-1.90	-20.20
Live animals	0.80	1.00	0.30	40.30	70.30
Chat	4.10	4.80	5.50	13.00	33.40
Flowers	4.40	5.00	4.50	-10.20	1.70

Source: Calculated from data collected from NBE (2010)

In the 2008/09 fiscal year, export receipts from coffee declined by 28.3 percent as a result of lower volume exported and decline in international prices. The volume of coffee exports went down to 21.5 percent due to problems associated with domestic trading system and lower demand in the international market. Consequently, the share of coffee in the total exports fell to 26 percent from 35.8 percent earlier. Coffee export from Ethiopia has exhibited high price variations from season to season. These variations are a combined effect of the factors affecting domestic supply and the periodic trends of the global coffee demand and supply situations. In the same year export receipts from coffee were USD 375.9 million. Similarly, export revenue from pulses dropped to 36.8 percent on account of 40.8 percent. Thus, the share of pulses in total exports shrunk from 9.8 percent to 6.3 percent during the review period.

On the other hand, export earnings from oil seeds, the second largest export commodity went up from USD 219 million in 2007/08 to USD 356.1 million in 2008/09 due to the increase in the international market prices. In 2008/09, the receipts from the export of pulses, leather and leather products as well as fruits and vegetables were USD 90.7, USD 75.3 and USD 12.1 million respectively. Earnings from the export of meat and meat products rose to USD 26.6 million in 2008/09 from 20.9 million USD in 2007/08 due to higher exports to the Middle East. There was

also an increase in earnings from the export of live animals, which reached USD 52.7 million in 2008/09 due to better international prices. Similarly, the income from 'chat', a stimulant green leaf, reached 138.7 million USD in 2008/09. Despite the global economic crisis and marginal decline in international prices 2008/09, export revenue from horticultural crops specially flower improved by 16.9 percent as a result of higher volume of export to different destinations. The receipt obtained from the export of flowers was USD 130.7in 2008/09 compared to USD 111.8 in 2007/08.

5.2 Trend of Horticulture Industry Investment in Ethiopia

Presently, Ethiopia has development strategy for horticulture industry. The strategy for the horticultural industry of the country is based on the requirements of the world major markets. Now a day, horticulture has shown promising results. The table 5.3 below indicates the trend of horticulture investment of the county.

Table 5.3: Summary of Approved Horticulture Investment Projects by Year and Type

Year	No of project		Capital in `000` Birr		Total	
	Domestic	Foreign	Domestic	Foreign	No of project	Capital in `000` Birr
1992	1	0	292	0	1	292
1993	-	-	-	-	-	-
1994	1	0	4845	0	1	4845
1995	6	0	7522	0	6	7522
1996	5	0	8672	0	5	8672
1997	5	0	11900	0	5	11900
1998	4	0	9127	0	4	9127
1999	10	0	30575	0	10	30575
2000	2	0	10207	0	2	10207
2001	2	0	9160	0	2	9160
2002	2	0	2309	0	2	2309
2003	4	3	8123	20984	7	29107
2004	4	8	10522	257964	12	268486
2005	9	13	69031	325328	22	394359
2006	9	0	24220	487108	19	511328
2007	25	14	101637	1540240	39	1641877
2008	28	16	115776	1375634	36	1491410
2009	6	17	132703	254304	23	387007
2010	3	7	4366	266637	10	271003
Total	**118**	**88**	**560985**	**4528198**	**206**	**5089183**

Source: EIA Data base (2010)

As the table above indicates since 1992 up to May 31, 2010, the number of approved horticulture projects reached 206 with total invested capital 5,089,183,000 Birr. Among these investors 57 percent are from domestic and 43 percent from foreign in number. But when seen in amount of capital invested, from the total 89 percent is by foreigners and the remaining 11 percent amount is by domestic investors. This implies that even though foreign investors are few in number and started to invest recently (2003), they engaged in to the investment by high amount of capital which implies that they are risk takers than domestic ones. Currently, investors from foreign both in number and amount of capital they invest are rapidly increasing. It again indicates the formulation of a comprehensive industrial development strategy and investment policy of the country in 2003 is attractive especially for foreign investors.

Table 5.4: Employment Opportunities Created Horticulture Investment since 1992-May31, 2010

Year	Domestic		Foreign		Total	
	Permanent Employ.	Temporary Employ.	Permanent Employ.	Temporary Employ.	Permanent Employ.	Temporary Employ.
1992	48	0	0	0	48	0
1993	-	-	-	-	-	-
1994	96	600	0	0	96	600
1995	133	7	0	0	133	7
1996	120	0	0	0	120	0
1997	128	0	0	0	128	0
1998	284	58	0	0	284	58
1999	254	1134	0	0	254	1134
2000	57	720	0	0	57	720
2001	33	200	0	0	33	200
2002	29	210	0	0	29	210
2003	261	40	112	500	373	540
2004	270	250	1342	3055	1612	3305
2005	270	1605	9217	5126	9487	6731
2006	200	802	1056	1587	1256	2389
2007	1155	3841	1905	10565	3060	14406
2008	409	2740	1623	3980	2032	6720
2009	1215	185	933	3143	2148	3328
2010	35	110	435	1575	470	1685
Total	**4997**	**12502**	**16623**	**29531**	**21620**	**42033**

Source: EIA Data base (2010)

The table above shows that during the period, due to horticulture investment in the country, for 63, 653 people job opportunities is created. Among the employees, 76 percent are employed permanently and the rest 34 percent are employed temporarily. Therefore, since the industry is

labor intensive by nature, it is also contributing in reducing unemployment problem of the country.

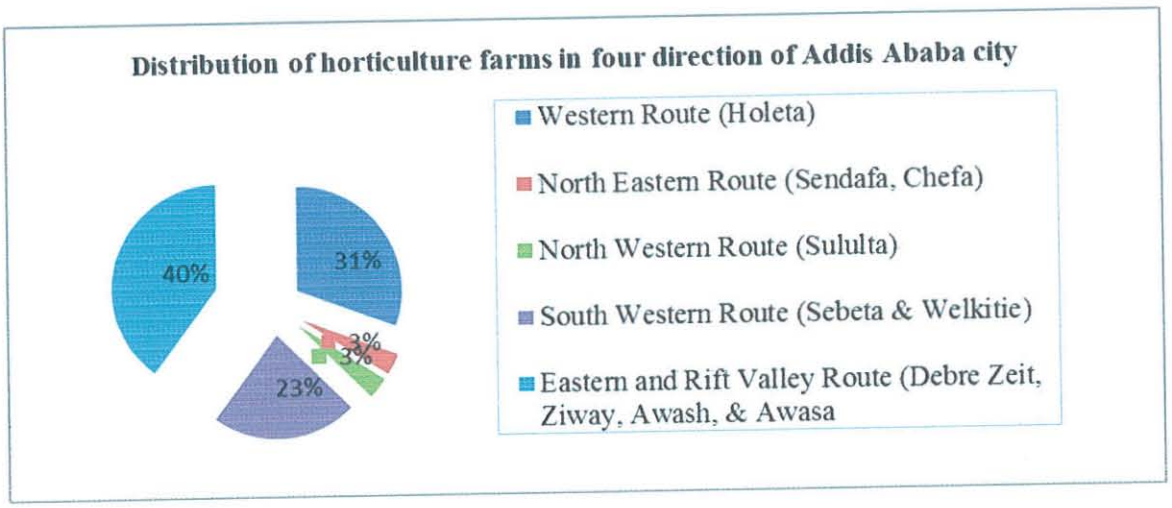
Table 5.5: Horticulture Investment projects by Regional Distribution, since 1992- May, 2010

Region	No of project		Capital in `000` Birr		Total	
	Domestic	Foreign	Domestic	Foreign	No of project	Capital in `000` Birr
Addis Ababa	2	7	7001	59839	9	66839
Afar	1	-	1563	-	1	1563
Amhara	12	8	61868	897506	20	959374
Dire Dawa	13	-	21022	-	13	21022
Multiregional		15	-	226400	15	226400
Oromia	23	52	80036	3252827	75	3332863
SNNPR	55	6	332847	91627	61	424474
Somali	2	-	3566	-	2	3566
Tigray	10	-	53083	-	10	53083
Total	118	88	560985	4528198	206	5,089,183

Source: EIA data base, (2010)

Table 5.5 provides the regional distribution of horticulture projects in Ethiopia. As indicated in the table the Oromia leads in horticulture investments by attracting 23 domestic investors and 52 foreign investors. The from the total number of projects and amount of capital invest on horticulture industry in the country, Oromia shares 36 percent projects and 65 percent of capital. SNNPR is the follower. Despite the existence of such resources as water, land and suitable growing climate in ample all over the country, most horticulture farms are located along main asphalt roads and concentrated around the capital city-Addis Ababa. This shows that closeness to airport and availability of infrastructure are playing pivotal role in geographic spread or concentration of the industry. Most horticulture farms are located along the major asphalt roads from Addis to four directional regional cities as well as along river basins. These are 1st on the way from Addis to Awassa (Ziway) and Adama, 2nd the road to Ambo (Nekemte) around Holeta, 3rd from Addis to Jimma (around Sebeta), and 4thfew along the road to Northwards. The maximum and minimum distances from Addis to the farm's specific locations are 110 and 22 kilometer respectively while the average distance being 51 kilometer. Most the farms are located just adjacent to main asphalt roads and the average distance is 3.5 kilometers. Farm size ranges from 4 hectare to 24 hectare, the average being 11.35 hectare.

Figure 5.1 Distributions of Horticulture Investments nearby Addis Ababa city



Source: EHPEA (2010)

Until May 30, 2010, nearby Addis Ababa city there are 55 rose producers, of which four of them produce summer flower, vegetable, and/or herb as well. Two farms are producing summer flowers and vegetable simultaneously where there are only two vegetable growers, only two fruit growers, and six fruit-vegetable-herb growers. Therefore, vegetable, fruit, and/or herb growers do not exceed more than 15 growers, constituting a share of 17%. Rose growing members of the association 55 in number, a share of over 65 % where 10 summer flower producers account for 12%. Five cuttings producers have a share of 6%.

According to the EHDA, in the just concluded 2009 budget year, 216 million USD has been earned from horticulture exports. The revenue was obtained from 1.8 billion cut flowers and over 60,000 tonnes of vegetables, fruits and herbs supplied to overseas markets, mainly to the Middle East, European and Asian countries. The increase is attributed to the priority given to the sector by the government and active participation of investors in the sector. There is a plan to earn $442 million this budget year (2011) by exporting more than 3 billion flowers and 74,000 tonnes of fresh produce (Growth and Transformation Plan (GTP), 2010).

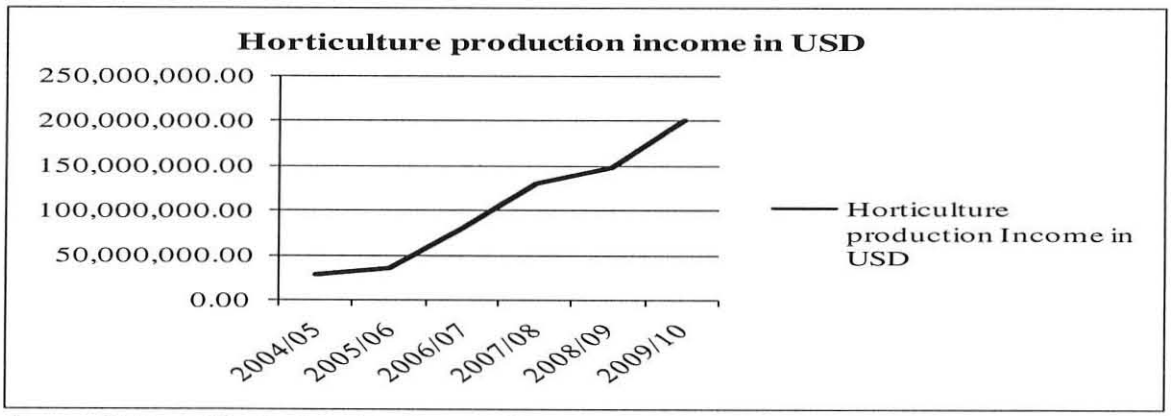
Table 5.6 Horticulture Industry Recent Years Export Earning (2004/05-2009/10)

Year	Horticulture production income in USD	Vegetable, Fruits & Herbs export income in USD	Flowers export Income in USD
	28,550,000.00	15,950,000.00	12,600,000.00
2004/05	34,710,000.00	12,740,000.00	21,970,000.00
2005/06	80,550,000.00	16,950,000.00	63,600,000.00
2006/07	130,230,000.00	18,530,000.00	111,700,000.00
2007/08	148,120,000.00	17,410,000.00	130,710,000.00
2008/09	200,000,000.00	27,500,000.00	157,000.000.00
2009/10	28,550,000.00	15,950,000.00	12,600,000.00
Total	**622,160,000.00**	**109,080,000.00**	**497,580,000.00**

Source: Ethiopian Horticulture Producers and Exporter Association (2010)

As table 5.6 indicates the total export of horticulture produces is rapidly increasing. During the past six consecutive years its value export reached 622,160,000 USD. From this amount fruits, vegetables share is 109, 080,000 USD while the remained is 497, 580,000 USD income is generated from flower export. Figure 5.2 below indicates the horticulture production and export trend during the past consecutive six years.

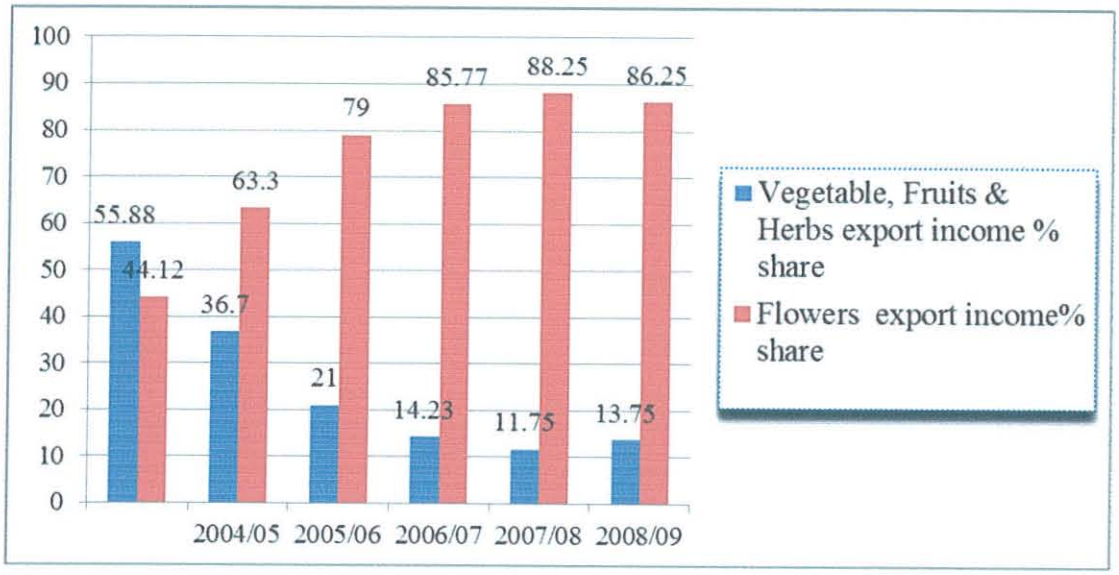
Figure 5.2: Trend of Horticulture Production and Export Earnings of the Country



Source: Ethiopia Horticulture Producer and Export Association-PR Department (2010)

As the figure 5.2 shows the trend of amount horticulture production income is increasing sharply. Due to that the generated income account from the sector is for 10% of the nation's foreign currency earning. Currently, the sector is becoming the third largest source of foreign currency, next to coffee and oilseeds.

Figure 5.3: Percentage Income in Export Share of Horticulture Produces



Source: Ethiopian Horticulture Producers and Exporter Association (2010)

As the figure 5.3 the share of flower from total horticulture produce export is increasing sharply relative to fruits and vegetables. On other hand the share of fruits and vegetable is declining, though its income is increasing. The share of flower out of the total earning from horticulture is 80.67% in average.

5.3 Regional Horticulture Trade Flow

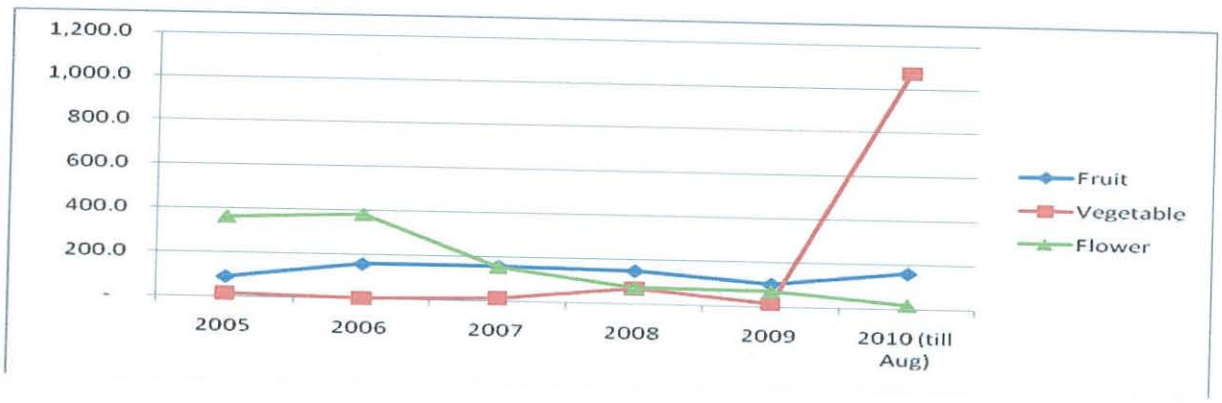
The country's top five horticulture produces export trade partners in the year 2008/09 were Germany, Netherlands, Switzerland and Saudi Arabia whereas import partners were China, Saudi Arabia, India, Italy and UAE. In the 2009/10 annual budget year Ethiopia earned around 2 billion USD from the export sector among which agriculture constitutes around 80%. For the last four years, the main exportable agricultural products were coffee, pulses, oils seeds & spices, Chat and horticulture produces. The total annual volume of fresh fruit production of the state sector agriculture contribution is less than 20% (Tsegaye, 2010).

The export from horticulture was 250 million USD in the 2009/2010 Ethiopian budget year which accounts for 12% of the total export from Agriculture. Before four years, the contribution of the sector was only 3%. The horticulture is nowadays a priority sector that so many privileges

such as duty free importation, income tax holiday, customs warehouse facility, lease based land availability and voucher system is given. Due to the incentive schemes given, favorable agro-climatic and socio-economic conditions available in the country, the sector is remarkably booming. So as to provide a one window stop service to the growing horticulture export sector, the government has established on 2008 an agency-EHDA. The Agency mainly focuses on market expansion, capacity building and investment promotion. Enhanced trade and deeper regional integration is essential. In this section, the import from and export to the regional market is discussed.

5.3.1 Horticulture Import: In some African countries such as Kenya, South Africa and Morocco horticultural produces have been produced and exported for several decades. Ethiopia however was producing some fruits and vegetables in a very traditional manner which is less in quantity as well as quality especially produce for the local market. Figure 5.4 shows the total amount of regional horticulture import performance for the last six years.

Figure 5.4: Imported Amounts of Fruits, Vegetables and Flowers in tons

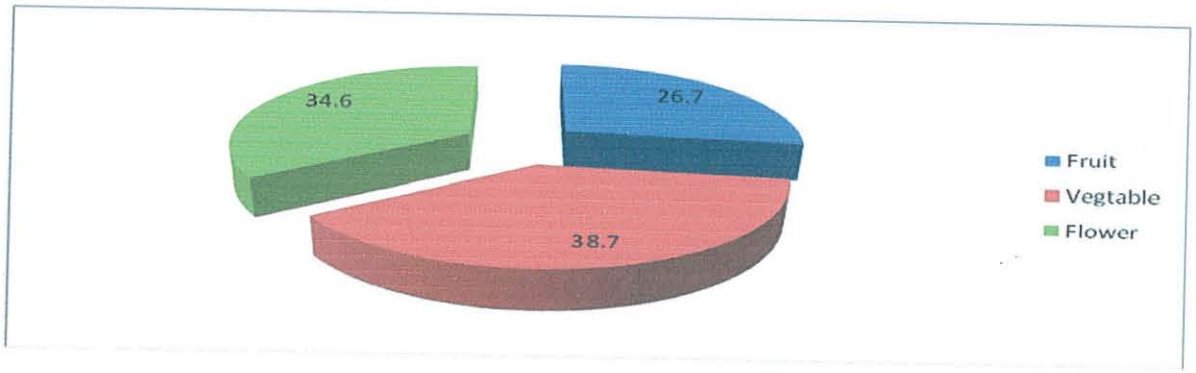


Source: designed based on data of EHDA (2010)

As it can be observed from the above chart, the imported horticulture amount over the past six years (of course for 2010 till Aug) has shown tremendous fluctuation. In the case of vegetable, one can see that despite of the ups and downs observed, the demand is increasing especially for the ongoing year. Fruit is cycling within a certain limit whereas imported amount of flower has generally been diminishing for the period under consideration. This is due to the reason that production at home is remarkably growing for the same period. Summing up, a

of fruit was imported during the last six years from South Africa, Egypt, Tanzania, Kenya and Sudan. Whereas, the imported amount of vegetables from South Africa, Kenya, Tanzania, Sudan and Egypt was 1,184.8 tons, a total 1,060.1 tons of flower was imported from countries such as Kenya, South Africa, Zimbabwe, Zambia, Uganda and Tanzania.

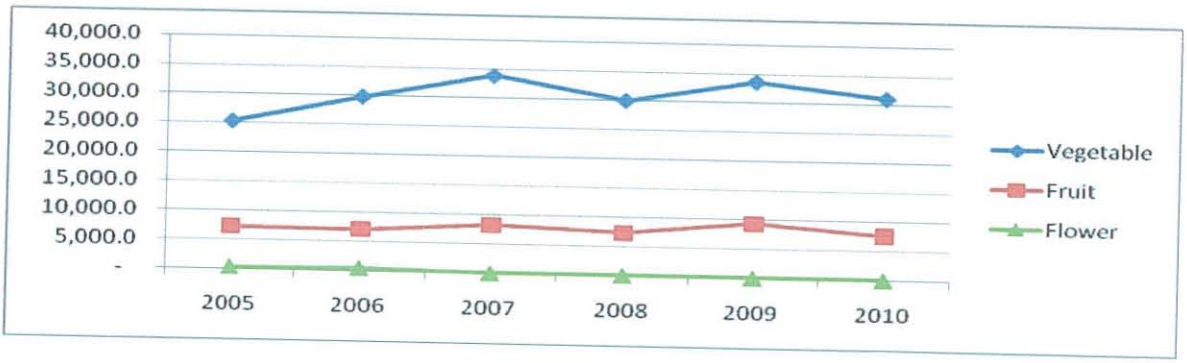
Figure 5.5: Percentage share of imported amount of fruits, vegetables and flowers



Source: designed based on data of EHDA (2010)

5.3 Horticulture Export: Ethiopia has been exporting vegetables to Republic Congo, Djibouti, Egypt, Gabon, Kenya, Sudan and South Africa; Fruits to Djibouti, Sudan, Egypt, South Africa, Kenya, Gabon, Guinea and Niger. Whereas, the country also export flowers mainly to Holland, Germany, UK, USA, France, Italy, India, China, Switzerland during the period under consideration. The total amount of fruits, vegetables and flowers exported to these countries is presented by chart below.

Figure 5.6: Export Amount of fruits, vegetables and flowers in tons



Source: designed based on data of EHDA (2010)

As can be observed from the above chart, the exported amount of vegetables during the base year was 25,335.1 tones. Showing some growth it reached 31,098.3 tons during the ongoing year. On the case of fruits it was 7,323.3 tons in the year 2005 and showing slight difference it becomes 7,567 tons this year. On the other hand, 323.4 tons of flowers were exported in the year 2005. Registering tremendous decrease, only 8 tons was exported during the ongoing year. Overall, 46.9, 183.8 and 0.9 thousands of tons of fruits, vegetables and flowers have been exported for the last six years to the countries stated above. From the figures one can understand that the exported amount of fruits and vegetables was fluctuating within a certain limit. Whereas, in the case of flowers, it was dropped by 97.5% comparing to the base year (of course few months are on hand). This due to the reason that the base year of this analysis was the period where flower production begun to boom. Therefore, as unorganized sector, much easier it was to trade regionally. But later focus was made on international market.

Generally, during the last six years total 234.7 thousand tons of horticulture was traded regionally among which 231.6 thousand tons was for export and the balance 3.1 thousand tons was imported from the regional market. Therefore, the figures indicate that 98.7% of the balance was for export whereas the rest for import. During the year 2005, the total exported amount of horticulture was 33 thousand tons and on the ongoing year it becomes 38.7 thousand tons. On the other hand the imported amount was 465.8 tons during the base year and 1,250.5 tons on the ongoing year. On average it was 510.4 and 38.6 thousand tons for import and export respectively for the stated period. During the period under consideration, total 24.9 million USD was spent to import the above discussed amount, whereas, 149.5 million USD was earned by exporting the above stated amount of horticultural produce.

5.4 The Main Ethiopian Horticulture Industry Facilitators

The government of Ethiopia is giving priority to production and export of agricultural products including horticultural sector. Accordingly, an attractive investment packages have been offered, which include among others, a tax holiday, favorable financing possibilities and active assistance for obtaining land. Land can be leased on long-term basis at favorable conditions and loans can be obtained at advantageous terms. With new investors coming and investing in to the business, the sector is growing very rapidly. Europe and the Middle East countries are also highly demanding horticultural products of Ethiopia. Ethiopia has a potential to grow almost all types of fruits, vegetables and flowers. Cognizant of its potential, the industry's association and the government of Ethiopia is giving high priority to expand it. The main horticulture industry development catalysts/facilitators of the country are EIA, MOTI, EHPEA and EHDA (EIA, 2010). Next section briefly tries to discuss the role of these organizations for the development of the industry based on data obtained from them through questionnaires, interviews and focus group discussions obtained from the three organizations.

5.4.1 Ethiopian Investment Agency: According to the discussions with EIA experts and (EIA, 2010) indicate EIA is established by government of Ethiopia for the vision that to be a strong institution which will make Ethiopia, one of the leading investment destinations in the Africa. Its mission is to enhance investment both foreign and local investors in the country by promoting its resource potentials and investment opportunities, initiating policy and implementation measures to create conducive investment climate and providing efficient services to investors including horticulture project so as to bring fast and sustainable economic development in the country.

5.4.2 Ethiopian Horticulture Development Agency: Experts from the EHDA explained that in order to provide a one-window service and to boost the horticultural sector further, the EHDA has been established in the year 2008, as an autonomous Federal Government Agency under the Ministry of Agriculture. The Agency is now exerting overall effort to strengthen the development of the sector-emphasizing the areas of investment, capacity building, and market and promotion supports. According to (Tsegaye, 2010), the main Agency's

objectives are: ensuring the fast and sustainable growth on horticultural production and productivity, facilitating the export of diversified horticulture products which meet internal food safety standard; and coordinating the development of supporting service.

5.4.3 Ethiopian Horticulture Producers Exporters Association: Information gathered though interview and FGD and written documents (www.ehpea.org) show that, EHPEA was established in September 2002, to represent the interests of its members and promote the expansion of the emerging horticulture export sector. It is a non-profit making and non-governmental organization whose members are all registered businesses engaged in the production of flowers, propagation, ornamental plants, fruit, vegetable and herb for the export market. It had started with five members and successfully grown to 88 members. Over 73% of producing and exporting horticulture enterprises operating in Ethiopia are members of the association. The Association promotes and safeguards the sustainable competitive position of the Ethiopian horticulture sector within the global market.

The strategic activities of the association includes representing the sectors and members` interests, facilitating market access and linkage, organizing, supporting and delivering capacity building activities for the members and relevant partners, the implementation of the responsible production practices that protect employees and the environment, and initiating partnership building and networking among stakeholders in the sector. Moreover, the association is also recognized as 'The Voice of the Sector' at both national and international levels. Within the country, the association is actively involved in discussion with the government and concerned stakeholders regarding service provision, national policies, and the regulatory framework, whilst at international level. Promotional activities are carried out by the association nationally and internationally to raise the awareness and profile of the sector.

The association also represents the sector at international trade fairs and meetings. Investors, visitors to Ethiopia, and buyers of fresh produce are assured of a welcome at the association and can know that they will be able to access up-to-date information about the sector. EHPEA is to provide market information for producers, product information for buyers, and facilitate linkages between producers, buyers, and the international market. In 2007, the association launched its

own code of practice for sustainable flower production. The code includes good agricultural practice, protection of the environment and corporate social responsibility. Standards set in the code provide both guidance for development and a tool to monitor performance.

Moreover, a comprehensive program of workshops, seminars, on farm trainings and study tours is provided for the sector by the coordination of the association. This program is designed to raise the awareness, understanding and skill of owners, managers and farm employees and includes cold chain and quality management, integrated pest management, farm safety, green-house management and production skills and protection of the environment. Trainings are organized in response to the needs of the sector and are provided by the EHPEA training team and visiting consultants. Partnerships and networking are two important aspects of working efficiently to produce results. The association works in partnership with government, a number of donors, non-governmental and civil society organizations to initiate and implement projects and activities designed to increase the scope, size and sustainability of the sector.

5.5 Profile and Basic Features of Studied Horticulture Farms

5.5.1 Background and Characteristics of the Respondents

A total of 12 questionnaires were distributed to the same number of horticulture companies who both producers and exporters to be filled by company managers. Accordingly, twelve of questionnaires were filled and returned representing 100 percent of response.

Table 5.7 Characteristics of the respondents (farm owners)

No	Categories	Responses	
		No	Percentage
1	Education		
	Secondary school	-	-
	Diploma	-	-
	Degree	6	50.00
	Masters and Above	6	50.00
	Total	12	100
2	Nationality		
	National	9	75
	Expatriate	3	25
	Total	**12**	**100**

Source: Field Survey (2011)

This section describes characteristics of the respondents-company managers/ or their delegates, which are the major subject of this study. Table 5.7 depicts the characteristics of respondents in terms of their educational level and nationality. As it can be seen from the table, six are qualified to degree level and six are at the educational level of masters and above. Majority of the respondents are qualified in the fields of social science mainly economics and business management, which could give them good opportunity for marketing side of the business. On the other hand, there are only few professionals who come from agriculture/horticulture fields of study implying majority of the managers lacking knowledge required in the production and farm management aspects of the industry.

Regarding their nationality of the respondents it can be seen that three of the respondents are expatriates and nine are nationals. Expatriate personnel are managing all foreign direct investment. Moreover, some farms owned by domestic investors employed expatriate

technicians. This indicates that there is gap with respect to managerial and technical skills available in the country and what is required by the industry. Out of the total respondents, half of them replied as they were engaged in other business, five were employees of other companies and one school graduate before getting into this business. This shows that they have used entrepreneurship skill developed in other business.

5.5.2 Types of Ownership

The table below indicates the investment categories of the respondents based on data collected through questionnaire.

Table 5.8: Investment Categories of the Respondents

Category	Number	Percentage
Domestic	9	75
Foreign (FDI)	3	25
Joint Venture	-	-
State Owned	-	-
Total	**12**	**100**

Source: Field Survey (2011)

Table 5.8 portrays the type of investment that respondents belong to. Out of twelve respondent companies, nine are domestic, three are foreign direct investment. In the study area there is no company owned by joint venture between Ethiopians and investors from different countries and state. The respondents were also asked to mention their origin of country if their company belongs to one of foreign direct investment. Accordingly, the origin of these groups of investors found to be from Holland, India and Israel. In addition, majority of these investors were operating elsewhere in Africa or Europe in the same industry. This indicates that the investment is the mix of subsidiaries of transnational corporations and entrepreneur capital both from local and abroad.

Current development and future prospects of horticulture industry in Ethiopia is mostly contingent up on country's horticulture investment policy. Most of skills and technologies developed elsewhere are coming into the country implying good opportunity for spillover effect despite the fact that spillover effect is yet to be investigated. For instance, joint venture creates

good opportunity for Ethiopians to gain access to resources, market and skills and technologies of DCs. But still the country could not be beneficiary of it. Domestic growers can be characterized as educated urban entrepreneurs implying good opportunity to access market information, support institutions, funds/loans etc.

5.5.3 Reasons for Choosing Ethiopia and Sebeta Area for Investment

The respondents, which belong to their foreign direct investment, were asked to explore the most important factors making Ethiopia in general and Sebeta area specifically their choice for investment area, as some has said 'production hot spot' for foreign investors.

Table 5.9: Rank Order of Reasons for Choosing Ethiopia for Investment

Items	Rank order
Favorable climatic conditions	1
Proximity to consumer market	3
Favorable investment climate in Ethiopia	5
Availability of cheap labor	4
Low cost for land	2
A better security	6

Source: Field Survey (2011)

The list of most possible factors, which were thought to be important in attracting foreign investors to invest in Ethiopia were provided to respondents to rank according to their importance. As tables 5.9 above shows the respondents feel that the most important reasons are favorable climatic conditions, low cost for land, proximity to consumer market, availability of cheap labor, favorable investment climate in Ethiopia and a better security situation in the country as compared to some African countries. From this, it appears that comparative advantage of Ethiopia to be competitive in attracting foreign investment in horticulture industry lies in its endowment with favorable natural factors. The respondents were provided with the lists of possible factors that determine their choice of specific location and the result is shown in the table 5.10.

Table 5.10: Reasons to Choose Specific Locations (Sebeta area)

Items	Levels of Responses									
	Critically important		Highly important		Fairly important		Less important		Not important	
	No	%	No	%	No	%	No	%	No	%
Its closeness to airport	2	16.70	7	58.30	-	-	3	25	-	-
Availability of water for irrigation	11	91.70	1	8.30	-	-	-	-	-	-
Topographic and soil factors	-	-	1	8.30	3	25	5	41.70	3	25
Infrastructure and service availability	1	8.30	5	41.70	5	41.70	1	8.30	-	-
Availability of cheap labor	1	8.30	3	25	6	50	2	16.70	-	-
Suitable climatic conditions	10	83.30	1	8.30	1	8.30	-	-	-	-
Availability and low price for land	4	33.30	5	41.70	2	16.70	-	-	1	8.30

Source: Field Survey (2011)

As one can easily understood from the table, majority (11 of the respondents said availability of water for irrigation is critically important factor in determining their specific locations for horticulture (fruits, vegetables and flowers) production. Next to this, ten of them feel that suitable climatic condition is again critical whenever they made choice regarding their specific locations. Availability and low price for land stood third (four and five said critically and highly important respectively). Closeness to airport is another factor considered highly important by the majority of respondents (seven respondents).

The respondents also rated availability of infrastructure and different services between highly and fairly important factors that determine their choice of specific locations. Pedagogical factors and availability of cheap labor considered to be fairly to less important indicating that soils in Ethiopia are more or less suitable for production of horticulture and no as such significant differences in labor cost from place to place. In general, the respondents feel that irrigation water, climatic conditions, and availability of land are priority factors, which stood from first to third in determining locations of their farm.

5.5.4 Infrastructure and Institutional Framework

Table 5.11: The availability and adequacy of infrastructure and services in the country

Items	Levels of responses									
	More than enough		Adequate		Somewhat adequate		Inadequate		Poor	
	No	%	No	%	No	%	No	%	No	%
Road	-	-	2	16.70	5	41.70	4	33.30	1	8.30
Telecommunication	-	-	2	16.70	4	33.30	4	33.30	2	16.70
Power/electricity	-	-	6	50.00	3	25.00	3	25.00	-	-
Customs/ clearance services	-	-	2	16.70	6	50.00	3	25.00	1	8.30
Availability of institutions that support you	-	-	-	-	-	-	6	50	6	50

Source: Drawn based on field data (2011)

Regarding infrastructure and services, road, electricity/power, telecommunication, and customs and clearance services are thought to be vital for operation of the industry. Therefore, the views of the respondents were assessed concerning the level of availability of these infrastructure and service. The respondents viewed that road situation is somewhat adequate. It was found that most fruits, vegetables and flowers farm are located along major asphalt roads from Addis to regional cities, which are in a good condition. However, most of roads, which connect farms to main asphalt roads, are in difficult situations, especially during rainy seasons. This causes mechanical /physical damage on products during transportation. This again has great impact on quality level and eventually prices they get on final market.

Telecommunication is another important infrastructure needed by fruits, vegetables and flowers growers. Exporters must frequently communicate with their trade partners to get market information and to arrange logistics. Market information is also critically important to be competitive since they are rapidly changing sector. Hence, access to means of communication is paramount importance. It was found that half of the respondents viewed telecommunication service is not adequate. The problems mentioned by the respondents include particularly poor

service of mobile telephone and internet. Electric power is also important infrastructure and found to be better as compared to telecommunication. Power supply should be continues so as to keep farm-cooling facilities always functional. However, frequent power failure is the major problem and respondents use their own generators to supplement it. This increases production cost and may deter their competitiveness as they spend high amount of money for fuel.

As part of an institutional framework laws and regulations surrounding the industry are vital for the flourishing as well as development of a given industry. The respondents were asked about situations of laws and regulations that govern private investment in general and horticulture industry in particular. Eight of the respondents feel that they are encouraging and workable while two said highly encouraging and others two on the contrary said somewhat obstacles. This shows the policy environment related to horticulture industry is at least not impeding if not highly encouraging. These rules and regulations are related to general investment guide that includes incentives for investors regarding import of capital goods and other necessary inputs, tax related issues, land lease policy, etc. Institutions provide support to the industry especially in business support, training, consultancy, and research areas are very limited and most of them use private foreign and capable horticulture enterprises to get services like research, management consulting, skill training for workers and technology improvement on payment.

Although, labour is available in ample and cheap in Ethiopia, skills required, for example, in on, modern production techniques and agronomy, overall production and logistics managements are deficient in the country. Institutions, which give trainings in these regards, are also limited. Agricultural colleges and universities and offering general trainings in agronomy or horticulture, but as per executive director of EHPEA and producers themselves, students graduated from those institutions lack practical knowledge in fruits, vegetables and flowers production that entails inexistence of demonstration and practicum on horticulture production, protection and management in curriculums. Moreover, there are no enough consulting firms or institutions, which given short-term trainings and technical support in the industry. Agricultural research institutions are also lagging much behind as far as horticulture is concerned. Existing research centers, none of them conduct research on horticulture. As a result, producers are obliged to use

some expatriate technicians and foreign consultants with high payments that eventually affect their competitiveness by increasing production cost.

Producers also complain about financial institutions, which are providing loans. Development Bank of Ethiopia is the major source of loans for producers engaged in horticulture industry. The lengthy procedure and processes to get loan is main source of complain by producers. Development Bank provides loans on installment basis whereby it monitors the performance and progress of the previous installment before it provides any next installment. This is time taking procedure and if the producers want to start construction until they get approval from the bank, according to its regulations, does not allow them to assume construction and made any investment related to that project. Proper organization of the industry itself is paramount importance for the development of the industry in the country.

EHPEA is the only organization established by horticulture producers and exporters including those engaged in production and export of vegetables, flowers and fruits with the main objective of supporting the sector. EHPEA is providing limited to member producers and exporters like representing them on national and international workshops, trade fairs, exhibitions, and other issues related to the sector. It also lobbies government for appropriate policies and actions on behalf of producers. Current market information is vital for fruits, vegetables and horticulture exporters, as it provides insight into the products, varieties in demand, consumption patterns, prices, and marketing strategies. In other words, exporters and producers will be able to know trends of the changing requirements of the consumers.

It was found that the majority of respondents view current market information as an essential aspect of their competitiveness (half said highly important and others of them said important). Among the sources that they use to get market information, electronic database found to be the popular among all respondents. They get market information through agents, personal visits to international trade fairs; EHPEA also provides domestic investors on market situation important websites and assist to participate on trade fairs. In addition, all exporters have integrated electronic database that enhance their competitiveness, but the level of internet service is not as such satisfactory. On the other hand, it is not known that whether Ethiopian horticulture industry

receive adequate market information and determine consumers' preferences. However, half of the respondents replied that they use the market information obtained to adjust their products to demands of current market proactively. Dependency of many producers on auction also shows that the limited market information on other channels of distribution. As interview with expert of EHPEA revealed, Ethiopian producers (mainly domestic investors) do make visit to trade fairs and other market places in the consumer market. This is due to either they do not have financial capability to pay such trips or they do not want to make such a significant expenditures today anticipating future benefits.

As a consequence, they rely on few known agents for market information and bulk level of sale. Form this, it seems that one of the EHPEA's priority areas to support the growers is providing market information and devising mechanisms through which local growers can access market information on continues basis. EHDA is also performing in this regard. However, with their limited capacity in terms of manpower, finance and logistics; they cannot provide required market information. Moreover, they cannot provide capable services and technical support in the production, protection and overall management to improve the existing constraints.

5.5.5 Input-output Supply Situation

5.5.5.1 Supply of Inputs

Major inputs used by fruits, vegetables and flowers production include planting materials/seeds and cuttings, different types of fertilizers, insecticides, chemical for treatment, green house materials and equipment, trucks, irrigation materials and equipment, and packing materials. Most inputs are imported and few of them are available in the country. Starting materials are the most important inputs required by the industry consuming the major part of initial investment in addition to green house and irrigation set-up. All of these inputs have been imported from abroad until recently. At the time of survey of this study and study area (Sebeta) one company namely Ethio-Plant PLC was found engaged in propagating planting materials and supplying for fruits, vegetables and flower industries. In the country some farms propagate by their own and others either purchase from propagating companies or still import from abroad if varieties in need are

not found in the country. Production of planting materials in the country is a good prospect for development of the industry; however, lack of enough breeding companies in the country constrained the activity, since companies who are engaged in propagating starting materials' are obliged to pay royalties for breeders in foreign currency.

Concerning packing materials, different factories are producing packaging materials designed for packaging these products. Despite the fact that there are many factories engaged in producing packaging materials, respondents reported that its quality especially strength and attractiveness are inherent problems. As a consequence, some of them are obliged to import this input including chemicals used by producers include chemicals, fertilizers, insecticides, fungicides, refrigerators and other preservatives to prolong vase-life of products after harvest. Adamitulu Agrochemicals PLC is the only chemical factory producing some of such inputs and the major problems associated with the company are diseconomies of scale due to low level of demand/ market in the country and lack of necessary raw material.

Regarding inputs in general, locally available industries and importing companies are oriented towards supplying general agricultural inputs while horticulture in nature requires cleaner and more soluble fertilizers, specific pesticides, and more sophisticated packaging materials and refrigerators than existing industries can deliver. In this regard, the respondents reported that inputs supplied in the country are with low quality and not adequately supplied making them to rely on imported inputs, which is characterized by mounting prices that again increase production cost and deter their competitiveness in the international market. Though government at policy level allowed duty free import of such essential inputs including chemicals, the lengthy processes to get license for each import and the devaluation of Birr are becoming serious problems. According to respondents opinion forwarded delay in supply and fluctuating prices are the most prevailing problems faced frequently while high price and low quality of inputs are problems encountered sometimes. Input supply system is not developed to the level that it well supports the industry and producers have no control over input supply system. Low level of development of input supply system coupled with lack of producers' control over inputs supply in terms of quality, consistence and volume, may put the industry at risk and retard its competitiveness.

Concerning land availability, the land policy of the country states that land is a public property where the government particularly at the regional level is relatively a custodian and administrator of the land. Availability of suitable land at low price is the major comparative advantage of Ethiopian horticulture industry as producers elsewhere incur high cost to get land. Producers can obtain land from government or lease from farmers. This shows that getting land is not a problem for horticulture production, though the land price is recently increasing. The producers can easily expand their production to reach at critical volume given that other activities of the service delivery are functioning well. Similarly, availability and quality of irrigation water is paramount important for fruits, vegetables and flower production. Water quality, irrigation techniques (overhead or drip irrigation), and drainage/run-off must all be managed correctly. Eight of the respondents in this regard replied that they depend on borehole as source of water for irrigation whereas four use water from rivers. Almost all of the respondents use state of art drip irrigation technique. Regarding loans availability, major sources of capital for the area horticulture investment are development Bank of Ethiopia and the investor's own equity. The amount of capital registered does not go in proportion with their land size under investment. The amount of capital the investors accessed to, criteria need and the lengthy process to get loan make the problem difficult. This clearly leads to unsatisfactory yields.

5.5.5.2 Output Distribution Facilities

5.5.5.2.1 Storage and Transportation Facilities: Out of the twelve respondents, eleven produce flowers (mostly cut flowers) and one produce fruits and vegetables. Cooling facilities at production point and on the transportation from farm to airport, cold storage at airport and cold chamber in the airplane where the supply side cold chain ends up. Fruits, vegetables, flowers are highly perishable products and are thus crucially dependent on efficient and speedy distribution channels so as to keep quality of produces at required level. At production, all farms have invested on post-harvest handling facilities. Post-harvest activities include products put them in preservative solutions, transport to cold rooms where grading, sorting punching, draining and packing into final boxes take place.

As the most (ten) respondents replied, there is inadequate post-harvest handlings facilities, and means of transportation from farm to airport and insufficient cold storage at airport to keep freshness of the products at required level, timing and carrying the products at required volume. The problems related to this are due to bad road conditions especially from specific location of farms to asphalt roads. This situation deteriorates quality of products, which makes the industry less competent in international markets. Cooling store at airport is constructed by Ethiopian airlines to accommodate all perishables exported and transported by planes including fresh fruits, vegetables and flower products. The respondents complain that the service delivery of cold room at air-port is inadequate reasoning that cold chain and handling service delivery is beyond control of growers and exporters.

The fact that horticulture products are highly perishable products, they need speedy and efficient means of transportation from producing country to destined trade. Airfreight is the only transportation option in the case of cross border trade like trade between Africa and Europe. Therefore, the availability of low-cost and high quality airfreight service between exporting country and country of destination is the major determinant of competitiveness and consequent success of the sending country. Ethiopia has location advantage due to its close proximity to continental Europe, the major market for fruits, vegetable and flowers products, as compared to her fellow exporters in Sub-Saharan Africa. However, proximity to main consumer market is necessary condition, but not sufficient to be competitive. In Ethiopia, Ethio-Horti-Share Company, established by horticulture exporters, is working as freight forwarder by chartering air cargo from Ethiopian airlines. Reliable, low-cost, and efficient freight service /cargo service is needed to be a successful supplier.

At the time of survey, an interview that was made with the exporters, ten of them replied that the maximum flight per week is six charters while total volume per charter is 43 tons. Some exporters are using passengers' airplane to send their products. This shows that cargo service is not adequate either due to less frequent flight or limitation of cargo space per flight. According to eight of the interviewee, the air transport is less frequent flight, fluctuating freight rates and cargo space limitation arise not only due to low level of efficiency and effectiveness of cargo service in the country but also due to lack of critical volume and limitation in production forecast

and export plan well ahead of time from the side of exporters. Hence, it can be said that Ethiopia has cost advantages as far as freight charge is concerned.

5.5.5.3 Market Chain and Relationships

It was found that all farm owners considered in this study are both producers and exporters by themselves. Half of respondents export all of their products and the rest again export above 90 percent of their products to foreign market. The one who produces fruits and vegetables export all of their products to Djibouti, while the rest five flower producers export their products to Europe and the rest six send their products Middle East, Europe. Among the European countries, Netherlands and Germany take the lion's share while UK, Switzerland, Italy and Spain are other destiny countries. Though targeting such lucrative market gives an opportunity, its requirements in terms of quality and consistency load heavy burden on producers. The products should be fresh, clean, free from disease, and undamaged. It also needs high quality and ability to supply steady volume, timorously and at an agreed upon rate. To respond to these requirements, producers need to invest in production, post-harvest handlings, quality management and packaging. Despite the fact the Ethiopian producers have made investment on production and post-harvest handlings including inland transportation, they are constrained by less development of input supply system, inadequate institutions, and limited capability to assume functions like marketing in the main consumer market.

Concerning distribution channels, the list of existing distribution channels in European horticulture trade was provided to the respondents to assess on which channels they relay and trends in using them. Commonly known distribution channels include auctions (Mostly Dutch based), wholesalers, and retail chain. In all cases exporters from Ethiopia use agents if they do not have representative there. Agents remained the connective mechanisms between producers and auctions, wholesalers and even retail chain except three companies, which have import subsidiary there. In addition to their receiving, handling and transfer of products to buyers, agents provide market and product information, provide consultancy services, thus filling the gap that local producers are lacking. Agents transmit information from buyers such as actions, wholesalers, and retailers, lead firms. Those producers, who have targeted the retail chain sale

their products to supermarkets in the Germany and Switzerland. Super markets want to buy directly from capable producers through long-term contracts at an agreed price. Two respondents, who are selling to retail chain, said that supermarkets are concerned about the conditions under which horticulture produces are grown. In order to get into supermarket chain, producers need to make high investment on production, post-harvest facilities and logistics. Hence, Ethiopian producers mostly depend on actions. But only few experienced Ethiopian producers entered into the most profitable chain, retail chain though the impact of entering into such a profitable as well as the most demanding chain needs further investigation.

As respondents view, the most critical factors competing global market comprise quality of the product, consistency in quality, price of the product, logistics of supply, consistency in timing, packaging etc. in rank order. Here it seems that the competitive pillars of the Ethiopian horticulture producers and exporters rest mainly on the supply of required quality and on the consistent basis. Strict requirements like quality, consistence in quality, volume, and timing by European buyers obviously influenced structure and nature of industry in the country. To be qualified in such situations producers must made high investment on production, post-harvest and transportation facilities. Horticulture production process includes types of technology and input including chemicals and fertilizers, quality management system at production, post-harvest and transportation. Moreover, how much and when to deliver is another important issue especially in perishables like fruits, vegetables and flowers due to task complexity and time pressure. Characteristics of the products produced and exported by the Ethiopian horticulture industry are mainly determined by their respective buyers.

Concerning the logistics, auctions receive the entire amount sent to them provided that quality of product is as required. In this case, producers take prices determined at the auction centers. As a consequence producers who depend on auctions get less price premium than others. Wholesalers make an agreement with exporters regarding type of fruits vegetables and flowers and tell the producer on characteristics of products and production process that they require interpreting their respective customers. Logistics that is how much and when to deliver are determined by both parties depending on amount of order by wholesaler and capacity of producer. As far as retail chain is concerned, producers are supplying their products on the basis of standing order

agreement. Supermarkets specify everything that they need: type including detail characteristics, ways of packaging and concerned about production process like type of chemicals and other inputs, storage and use of chemicals. As regard to logistics, producers enter into agreement to delivery steady volume over the agreed period of time. Typical type of governance than market that supply and demand determines price and producers get return thereof. Supermarkets also monitor the performance of horticulture producers in Ethiopia against their standards and requirements through hired consultants or agents.

They also assist producers to meet the standards and improve their overall production and management system so as to improve output of the chain. Assistance comes in the form of training, consultancy and information provision. Producers who are selling to supermarkets chain said that they have to supply meeting the exact requirements of their buyers, steady volume with consistent as well as improved quality on timely basis. They have to also prepare bouquets mixing different varieties of fruits, vegetables and flowers and demonstrate quality packaging. The relation between suppliers and buyers of horticulture product is becoming more and more formalized. Due to increased pressures from governments and NGOs as well as increased consciousness of consumers concerning quality, safety, labor and environment during production, European buyers, especially retailers are adopting different standards as their performance criteria for selecting suppliers and set mechanism to ensure these requirements are met. Lack of known local labeling and certification hamper competitiveness because it leads to exporting undesirable products by some exporters that may lead to bad image and regulation.

Regarding quality, consistency and other issues in the European market, horticulture growers in Ethiopia should upgrade on continues basis to enter into more profitable chains. Upgrading, be it product, process or functional, is the result of research and innovation. In such fiercely competitive industry, producers need to invest in research and development to upgrade their position or/and secure their present position. Activities performed by buyers concerning products include packaging, marketing/advertisings and coordinating logistics. This shows there is room for producers to add value to their products without going into new products. All of the respondents feel that they have been upgrading their products since they started export to global market. Respondents view that problems impeding them to upgrade their products especially by

innovation include limitation of knowledge and finance, lack of infrastructure and technology required in the country, and limited information on the consumers' preferences. Process upgrading has to do with efficiency in the production and distribution systems. In the horticulture sector, it includes systems integrated to ensure quality, safe production in terms of environment and labor. According to them, respondents introduced new machinery or equipment. They also employed new technologies to control quality but they worked less on introducing new management and information system that is vital to improve the whole production and distribution systems. However, it was found that Ethiopian producers have gone little in this regard.

This makes the firms assume new functions in the chain that was previously performed by other chain actors. There are ample functions in the chain but not performed by producers giving opportunity to upgrade provided that they develop capability and competence. It was found that producers made an attempt to move both backwards and forewords in the chain. Some of the respondents expanded to backward linkages to exert control over important inputs. For example, they started to produce planting materials and fabricate packaging materials. This is to ensure quality and continuity of inputs that in turn help control quality and consistency of their products as required by their buyers. On the other hand, producers have gone somewhat forward to control logistics. They have jointly established freight forwarding Share Company, Ethio-Horti-Share, which is working with Ethiopian airlines by chartering cargo and negotiating charge rates and arranging cargo services on behalf of the producers.

By doing so, the fruits, vegetable and flowers companies are able to partly control the supply side logistics arrangement that helps them to enhance reliability and consistency of supply. On marketing and logistics functions, it was able to find that Ethiopian producers are at different level of capability. Those producers who have entered into retail chain have assumed new functions like marketing and oversea logistics. Inexperienced and incapable domestic horticulture firms are locked into half net-work channels such as auctions via agents with limited market information and less financial as well as organizational capacity to assume new functions. Despite the fact that majority of the respondents perceive research and innovation is very important for the competitiveness of horticulture industry, their competitive advantages are based

more on natural factors than research and innovation. It was noted that most of the respondents have been involving in the global market for less than six years that they have not yet developed sufficient experience to innovate and explore all possibilities to upgrade their products, processes, or functions except few foreign firms (who were operating elsewhere). Therefore, it can be concluded from this that with present level of capability Ethiopian horticulture industry continue to grow in size and supply world market as long as there is demand in such markets and of course cheap labor, land and climatic conditions in the country.

5.5.6 SWOT Analysis of Ethiopian Horticulture Industry

This section gives a broad analysis of the main strengths, weaknesses, opportunities and threats with regard to the horticulture sector and its business environment in Sebeta area in particular and Ethiopia In general.

5.5.6.1 Strengths: Ethiopia has favorable geographical and climatic conditions, both low land and high land as well as good soil and water conditions, which is a crucial strength to the horticulture sector. Production seasons are favorable as the rainy season in Ethiopia coincides with European summer implying that horticulture exports are lower when prices are also lower in Europe. There is a strong directive from high Ministerial level and regional government bureaus to promote investment and export of the horticulture sector. The Government has taken steps to improve the business climate setting up EIA and MOTI, liberalizing foreign exchange and introducing incentives for exporters (i.e. import duty exemption on capital equipment or spare parts; tax exemption on capital remittances; income tax holidays; export guarantee scheme; overseas loan guarantee; permission to carry initial losses forward; and customs warehouse facility). The Development Bank of Ethiopia provides a finance package specifically targeted at new investments in horticulture.

The EHDA under ministry of agriculture is working on capacity building, create linkage and collaboration among stakeholders, promote export and provide market information. EHPEA is a sector wide association of growers and exporters that is well established and recognized as a representative body. This level of organization in early stages of growth of the sector is certainly

an important strength to its further development. The sector has a relatively high participation of local investors, which makes it a more mixed sector and better integrated into the country and its economy. The relative openness amongst growers and the sense "to make it happen collectively" is also considered an important advantage to the sector in Ethiopia. The high security and relaxed atmosphere in Ethiopia has been an attraction to growers from other countries.

The horticulture sector has grown rapidly and has already been widely acknowledged for its significant contribution to employment generation and export earnings. Though the skills and experience amongst laborers is very low, they tend to be loyal, willing to learn and carry out their tasks willingly. In general, there is a positive atmosphere at farms and a healthy relationship between management and employees. In some cases, this has led to a pro-active attitude amongst employees and sense of "making joint achievements". In comparison with competing countries, the labour costs are relatively low. However, with the rapid pace of growth, there is already an upward trend in salaries of unskilled labor. Cool chain facilities (hardware) are relatively good and certainly up to required export standards. Moreover, the new handing facilities of Ethiopian Airlines at the airport are about to be opened and a strong consortium of private investors have an investment plan of similar facilities, including the provision of cooled transport service from farm onto airplane.

5.5.6.2 Weaknesses: The legal structure and regulatory system is not transparent and not conductive to the export business. Amongst growers as well as authorities there is a lot of confusion about who has the mandate and responsibility for what. This leads to "ad hoc" decisions by authorities or agents in order to enable exports or the expand farms while a structural solution is not reached. The airfreight capacity is insufficient, unstable over the year and often unreliable. The cargo flight of Ethiopian Airlines does not cool its freight. Moreover, there is no competition yet of dedicated cargo freighters on Addis Ababa airport. Although the cool chain facilities are up to modern standards, the use and fine-tuning of the facilities is weak. At the moment, warehouses and cold rooms are not properly utilized. Although the Development Bank of Ethiopia offers an attractive investment package, its implementation is highly bureaucratic and weak, thus impeding efficient use of the valuable resources. Moreover, this facility is poorly accessible to Ethiopian investors. There is a lack of technical capacity, market

information and practical experience in export horticulture, especially amongst Ethiopian growers, which is found to be a weakness to the sector's future development.

In addition, there is a serious lack of trained and experienced personnel right from lower level jobs to supervisory level. The sector has no local supportive cluster, which implies that practically all inputs, services, equipment and advice have to be imported and that growers need to keep considerable stock. Exports from Ethiopia to the EU are governed by a 100% check on SPS at the import side due to a lack of export volume and lack of trust in the local SPS and plant protection service. The geographical concentration of large export farms leads to water problems in selected areas (water gift of boreholes falling down significantly) and disputes over staff between nearby farms (for in-house trained or experienced labourers). Moreover, a number of farms require urgent improvement of their water management and/or irrigation systems. Geographical information on soil and water conditions is scattered and poorly accessible. Though the establishment of EHPEA has been a good start, the association has difficulties to keep up with the booming horticulture business and urgently requires strengthening of its organizational and institutional capacity. The fruit and vegetables sub-sector has a particular weakness of depending too much on the export of only few products and for a relatively short season.

5.5.6.3 Opportunities: The strong "positive drive" from the Governmental side to support the export horticulture implies a clear opportunity for growth and development of the sector. Moreover, this "drive" does not get stuck in words and promises, but is also translated into action and initiatives. Current public investments in infrastructural facilities like roads, airport, electricity and communication services are favorable to the sector's development. Ethiopia is in a fine position to learn from the experiences of other African countries and to avoid their mistakes and replicate their successes. Cool chain facilities are good and modern which implies that Ethiopia has the opportunity to do better than its competitors and avoid their initial problems. The sector is highly dynamic and enjoys a general positive feeling which-like a self-fulfilling prophecy- invites others to come in, may pull in input and service providers, encourage the government stakeholders to do their part and jointly "make it happen". There is growing interest from international organizations in private sector development in the country (i.e. subsidies from

like the African Development Bank etc.) The fruits and vegetables sub-sector has the particular opportunity to benefit from the rapid increase in floriculture and the local capacity improvements that it brings.

5.5.6.4 Threats: For long, the political and financial stability had been an important opportunity attracting foreign investors and boosting exports. However, this situation changed considerable after the elections in May 2005 and the developments afterwards. Geographical concentration of large export farms in few areas entails water problems and disputes over staff threatening and future investments. There are farms that do not live up to export requirements and international environmental and social standards. Incidents or bad practices at such farms can have negative impact on the image of the sector as a whole (or "a few bad apples can spoil the whole barrel"). Though export development has been given high priority by policy makes at national level, centralized thinking by lower and executive level authorities still hampers investments. Ethiopian Airlines provides its cargo services below cost price. This indirect subsidy hinders a healthy development of the sector in the long run as investments are partly based on false market signals. Horticulture investments of the country are highly concentrated nearby the capital city-Addis Ababa. The complete dominance of Ethiopian Airlines on dedicated cargo services out of Addis Ababa is also considered to be a market distortion with negative effects for long run development of horticulture export as it impedes competition in dedicated cargo services for their perishable character.

With regard to fresh vegetables, Ethiopian exporters compete almost only in few products and in a short export season. Moreover, in that season there is stiff competition from relatively large exporters in other countries exported in containers by sea!, managed to establish better post-harvest management and handling facilities thus supplying prepared products ready for steaming or cooking etc. At the moment, Ethiopian exporters cannot compete with them. Furthermore, other countries are trying to lengthen their export season (for example by producing under tunnels) thereby threatening Ethiopian export. Vegetable exporters focus on the highly competitive EU market while they have overlooked for a long time the potential of markets in the Middle East and neighboring countries.

5.5.7 SWOT Analysis Summary of Ethiopian Horticulture Industry

Table 5.12: SWOT summary of export horticulture in Ethiopia

Main Strengths	Main Weaknesses
Geographical and climatic conditions production seasons Strong directive from Government side Finance package by DBE Sector wide association EHPEA High participation of local investors Personal safety and better private security Cool chain facilities Low Land lease and labour costs Openness amongst growers Potential for irrigation	Airfreight capacity and competition geographical information on soil and water implementation of financial package EDB Institutional capacity of EHPEA Technical capacity amongst local growers Fine-tuning of cool chain and use of facilities Trained and experienced personnel Supportive cluster and related businesses
Main opportunities	**Main Threats**
Positive drive from Government side Public investments in infrastructure Learn from other countries Potential to do better than competitors Positive feeling to "make it happen"	Political and financial instability Water availability trivialized Lack of competition in cargo flights Global competition in fruits and vegetables market

Source: summarized from the study finding (2011)

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

The main objective of this study was to assess challenges and opportunities of horticulture industry in the country in general and particularly in the case of Sebeta area farms, Finfinne Surrounding Special Zone, where many horticulture farm clusters are found and to explore its contribution to the Ethiopian export diversification as a high-value /non-traditional agricultural product to minimize export earnings instability. Regarding the contribution of horticulture industry to the Ethiopian export diversification, recent secondary data on major export commodities including horticulture produces were inputs. Concerning exploration of challenges and opportunities of the industry development Sebeta are fruits, vegetable and flowers farms, EIA, EHDA and EHPEA were main sources.

The basic questions which were posed in the study were: Is horticulture industry optimally contributing in diversification of the country's export recently?, What are the major challenges for expansion of horticulture industry in Ethiopia and particularly farms of Sebeta area?, What opportunities are there to develop horticulture industry in the country?, and how can the horticulture industry optimally contribute to the export diversification of the country? In the study, both quantitative and qualitative research design were employed. Primary data were collected through questionnaire, interview, FGD and observation. Secondary data were also collected from different publications. The data collected were analyzed using SPSS and SWOT analysis. Based on the analysis, the results obtained can be summarized as below.

The export sector of the country shows fluctuation in both volume and value. The nations export sector is strongly dominated by a few primary traditional agricultural commodities like coffee and oilseeds, which are exposed to international price fluctuation, volatility and decline of agricultural commodity price. For long times, the trend of the country's export indicates monoculture-coffee, whose contribution to export is lion's share. Coffee's price is highly affected by the fluctuation of international market price and the country's economic activities

fluctuate together. For this, the trend of country's overall balance of payments is negative and widening deficit.

But the current share of dominant export items, particularly traditional commodities share to the total export is falling. This is due to horizontal export diversification strategy i.e., the establishment of new export areas took over some portion of the total export sector by shifting from traditional dominant export commodities to non-traditional dominant export commodities like horticulture produces. This may provide a safeguard against the risk of international price fluctuation. Presently, Ethiopia has development strategy based on the requirements of the world markets for horticulture industry. Hence, now a day, horticulture has shown promising results. The industry has been grown rapidly and widely acknowledged for its significant contribution to employment generation and export earnings. Currently investors from foreign and domestic in number and both amount of capital they invest are rapidly increasing. Especially the inflow of foreign investors is increasing after the formulation of a comprehensive industrial development strategy and investment policy of 2003. In 2009/10, the generated income account from the sector is for 10% of the nation's foreign currency earning and accounts for 12% of the total export from agriculture which was only 3% before four years ago. The sector is becoming the 3rd largest source of foreign currently, next to coffee and oilseeds. The share of flowers out of total earning of horticulture is 80.67% in average.

Due to incentive schemes given and natural comparative advantages the country has, the sector is remarkably booming. The government established EIA, MOTI, DBE and EHDA to enhance the expansion of the industry. Horticulture industry investment, are encouraged by the government of Ethiopia through several incentives for example through beneficial tax schemes for export investments. Besides this, these organizations are working on providing a one window stop service, market expansion, capacity building and investment promotion. The EHPEA established by members horticulture growers and exporters is also working on promoting, expansion of the merging horticulture export sector, facilitating market access and linkage, organizing, supporting delivering capacity building activities for members and relevant partners, promote and safeguards and competitive positions of the country's horticulture sector within the global market, initiating partnership building and networking among stakeholders in the sector, acting

as a voice of the sector at both national and international levels, actively involved in discussion with the government and concerned stake holders regarding service provision, national policies, and the regulatory frame work provide up-to date market information for producers, buyer's and international market.

The other the most important reasons in attracting foreign investors to invest in Ethiopia are favorable climatic conditions, low cost for land, proximity to consumer market /transportation cost, availability of cheap labour and favorable investment climate and better security situation. But the industry is not without bottle necks for its expansion. In the country, there is a great gap with respect to managerial and technical skills available required by the industry. The country's water management is weak. No joint venture companies in the area implying that most of skills and technologies developed coming in to the country are not in way for spillover effect and access to resources, market and skills, technologies. Domestic growers can be characterized as only educated urban entrepreneur indicating that need of opportunity access to makes implying that need opportunity to access to market information, support institutions, loans at rural level.

There is a serious problem of infrastructures such as road, electricity, telecommunication in the rural areas of the country. Because of these factors most horticulture farms are located along/ just adjacent to main asphalt roads nearby the capital city Addis Ababa in average distance of 51 kilometers and closeness to airport. The other constraints are lack of inputs such as chemicals, fertilizers, packing materials and loan accessibility. The legal structure and regulatory system is not transparent and not conducive to the export business. Air freight capacity is insufficient, unstable over the year and often unreliable, warehouse and cool rooms are not properly utilized. The DBE service delivery is highly bureaucratic and weak, thus, impeding efficient use of the valuable resources. There is lack of technical capacity market information flow. The sector has no strong local supportive cluster. Though the establishment of EHPEA has been a good start, the association has difficulties to keep up with the booming horticulture business and urgently requires strengthening of its organizational and institutional capacity. The fruit and vegetables sub-sector has a particular weakness of depending too much on the export of only few kinds and amount products and for a relatively short season.

Ethiopia's research and extension systems do not meet the needs of the horticultural industries. Due to lack of knowledge, the country fails to apply proper post-harvest and marketing practices, poor infrastructure management, and weak systems/facilities. As a result, still too many instances of failure to meet foreign buyers' quality standards and insufficient volume of export quality horticultural commodities available to significantly influence most markets. On other hand, Europe and the Middle East countries are also highly demanding horticultural products from Ethiopia. Ethiopia has a potential to grow almost all types of fruits and vegetables and flowers. Currently investors of flower growers who came from different countries as well as domestic investors are highly engaged in the sector. The export revenue from horticultural crops especially flower improved as a result of higher volume of export to different destinations despite marginal decline in the international prices. Thus, horticulture sector is on a way in contributing as means of horizontal export diversification.

6.2 Conclusion

The study's result is concluded that the country offers great opportunity to the investments in horticulture industry. Easy access to land, suitable agro-ecology, the potential future of the domestic market flight coverage to major markets, and financial support are a few of the major opportunities that open the road to investment in the industry. However, these opportunities are not without threats. Infrastructural bottlenecks appended by shortage of agricultural inputs, narrow product range, and lack of adherence to international codes of practices are major perceived barriers. Further, airfreight cost and capacity, competition, access to finance and foreign currency, and international regulatory norms and expectations are the major perceived threats.

As a whole, the finding reveals that foreign investments, government support through EIA and EHDA and the formation of the EHPEA are the major catalysts in the industry. The success of Ethiopia in the horticulture produces export from Africa has been remarkable. Ethiopia enjoys certain advantages that create ample opportunities for being one among the principal producers and exporters of horticulture produces in the world.

In general, there is a growing trend in the development of the horticulture industry in Ethiopia. With the attention given by the government to this sector coupled with comparative advantages that Ethiopia has in this industry, the country has been able to attract both domestic and foreign investors. Ethiopia's performance in the industry acts as an eye opener for other African countries. However, in spite of being benefactor on several accounts, the country exports at a minimal in comparison to the potential it has.

Generally, there is a promising growth potential in terms of production, processing and export of horticulture produces. The high level support of the government and the investment incentives have given a clear advantage to attract many foreign investors. The policies have the intentions to put more generous and attractive incentive schemes to attract and benefit private investment (both public and private). The favorable investment conditions and incentives provided have been an important factor in attracting both foreign and domestic investors in horticulture export business. However, the government support schemes are severely constrained at the implementation level. The implementation of the incentive schemes and related support processes is not as smooth and efficient as it should be. The bureaucratic hurdles along the implementation practices like getting loan, incentive scheme, etc., need to be efficient in facilitating the objective of the government.

The last few years witnessed major and accelerated investment in horticulture sub-sectors, although the increased investment tends to be biased in favour of flowers sector. Investment levels in the fruit and vegetable sub-sectors for the development of export production for the high quality markets in Europe, North America and Japan have been limited to few projects only.

Entry barriers in the international fruit and vegetable markets appear to be major restricting factor. The high concentration of buying power among the supermarkets in combination with their strict demands in terms of quality and safety compliance, traceability and consistency of contracted supplies implies, new comers in to the markets need to have highly effective and efficient production and post-harvest systems. Furthermore, the level of competition from existing exporting countries is high. Successful development of the export-oriented fruit, vegetable and flowers sub-sectors targeting the high value markets international and elsewhere

require additional efforts in raising the competitiveness of the sectors and facilitate easy market entry.

The performance of the smaller scale fruits, vegetables and flowers growers and exporters in the supply chains targets the lower value markets in the Middle East which is also not always easy to access. Lack of market transparency combined with buyers' concentration at the importers' side are hampering further growth and development of the sectors. The current transaction costs are high. Handling, packing and transportation of the produce create considerable losses during the post-harvest process. Competitiveness can only be enhanced in these supply chains with a comprehensive approach that simultaneously addresses these issues.

6.3 Recommendations

The above SWOT analysis on horticulture industry sub-sectors (fruits & vegetables and flowers) serve as a basis for a sector wide and export oriented horticulture development strategy in Ethiopia, as a strategy only becomes useful when it is widely accepted or "owned" by relevant stakeholders who are committed to its implementation.

- So as to safe guard export earnings of the country against risk of international price fluctuation due to over reliance on a limited number of traditional, low-value per weight, bulky agricultural commodities horizontal export diversification strategy through horticulture is appropriate and can be effective. In order to expand the industry, both natural and man-made comparative advantages the country has should be effectively used.

- Upgrade the knowledge, skill and experience of key actors like producers, associations, supervisors and subject matter specialists to increase production and productivity. Producers need adequate skills in production management practices starting from seed selection to post harvest technology, marketing principles, bargaining skills, business planning, quality management pests and disease management and post-harvest handling of horticultural products.

- It needs improving marketing of horticultural products which revolves around the arrangements of institutional, legal, educational and developing market facilities by establishing and enforcing a legal system in the marketing management, defining quality parameters, standards, grades and putting in place regulatory frameworks that enforce pricing based on quality is important, legalize the functioning for their practices and enforce true functioning of a competitive marketing system, strengthening the existing traders and producer association to organize them as business associations and build their business management capacities to operate as partners rather than rivals, improving market information and delivery system (market information and dissemination.

- It needs enhanced investment on marketing infrastructure: Expansion of the road and upgrading of the existing infrastructure needs to be continued and expanded further to feeder roads in rural Ethiopia. In addition to this, the post-harvest handling facilities such as warehouse, shade and cold house, transportation facilities needs to be expanded in order to make the industry competitive. The private sector, the public sector and the development partners' could share responsibility in putting in place such facilities.

- Use standard handling materials and grading of products: Investing in trainings on farming methods and techniques, in post-harvest handling, marketing and processing techniques should be given adequate attention. Wholesale markets in the main cities of the country should improve their physical facilities and should adopt fresh product handling practices. Wholesalers should upgrade their services and standardize post-harvest handling practices to keep the freshness and the quality of products. The quantity of products should be standardized. All horticultural products are perishable for this reason care must be taken at times of transportation and distribution. They also need enough attention and comfortable movement to arrive being fresh and lively.

- It needs improving in packing materials: Efforts should be made to improve packaging for export markets especially for horticultural products to meet importers' demand and standards. Rather than importing standard packaging, packaging industries in Ethiopia should able supply international market standard packages for exporters.

- It needs transforming towards agro processing industry: Horticulture should not remain as typical smallholders' fresh product supplying business. Modernization and transformation of the sub-sectors, especially in to agro processing, is key to success and survival of the business.
- It needs promoting out growers' scheme: Smallholder farmers are potential sources of labor and land. Therefore; smallholders and commercial farmers should jointly work in out growers' scheme. This business linkage creates mutual benefit and encourages the smallholders and the private companies.
- It needs the shift from the current subsistence level of production by smallholder farmers to commercialized production through promotion of out grower schemes. This is important for the future horticulture sub sector of Ethiopia. Therefore an all rounded efforts needs to be made to promote out grower scheme.
- Procedures in horticulture export are tedious as exporters are required to pass through several government offices. To facilitate export, the procedure should be improved.

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Annex A

Checklists for Depth Interview with Horticulture investment Experts in EHDA, EHPEA and EIA

- Name of the respondent_____
- Name of your organization_____
- Position in your organization_____
- How long have you served in your organization?

1. When is the current horticulture production and export policy put into effect?
2. Was it (the horticulture production and export policy) designed by drawing lessons from other successful countries?

    2.1 If No, why?

    2.2 If Yes, from which country/countries? Was it (the horticulture production and export policy) commented up to by investors?

    2.3 If yes, what did they say?

3. How many working days does it take for an investor to get investment license?
4. Do you try to collect the opinion of the horticulture producers and exporters about your service in a standardized manner?

    4.1 If No, why?

    4.2 If yes, how did they rate the service?

5. What activities did your organization perform to enable horticulture producers and exporters develop positive attitude towards Ethiopian's horticulture investment atmosphere?
6. How do you try to attract horticulture producers and exporters (foreign/domestic)?
7. What facilities and opportunities do you prepare for horticulture producers and exporters?
8. What incentive does your organization provide to horticulture producers and exporters?
9. Are there any adverse consequences resulting from horticulture producers and exporters?

10. Are there any investors who have shut down their business activities of horticulture production and exporting?

    10.1 If Yes, how many?

    10.2 Why? And When?

11. Does the number of horticulture producers and exporters show increment year to year?

    11. 1 If yes, why do you think?

    11.2 If No, why?

12. Was there any discussion forum organized among the stakeholders to facilitate horticulture production and export in the country? (Ethiopia Horticulture Producer and Exporter Association, Ethiopian Investment Agency, and Ethiopian Horticulture Development Agency)

12.1 If yes, what was the consensus reached?

12.2 If No, why did not you organize?

13. From your experience, what are the reasons inhibiting huge horticulture producers and exporters not to come/leave in Ethiopia in general and a particular area?
14. In general, do you believe that there are further actions needed to be taken to positively address horticulture production and exporter climate of the country?

    14.1 If yes, what?

Thank you in advance!

Annex B

Questionnaire for Horticulture Investors

The purpose of this questionnaire is to obtain information for research work in partial fulfillment of the requirement of MA degree in Regional and Local Development Studies (RLDS) at Addis Ababa University. This questionnaire is designed to collect data on challenges and opportunities of the Ethiopian horticulture industry in production and export. The study is purely for academic purpose/research. The research has important implication for the developments of endeavor that different stakeholders have pursuing to make the industry efficient. In particular it will help the existing and potential horticulture investors in the area as well as in the country. Hence the validity of information obtained from the questionnaire is necessary. Therefore, your co-operation being genuine and frank in answering the following questions is highly indispensable for the intended goal and objectives of the research work. You may not need to mention your name/company name.

Date_____

Questionnaire number_____

General Instruction

Note: The questionnaire has open ended and closed ended questions.

- For the close ended questions you are kindly requested to encircle the letter of your choice that holds your opinion and you can encircle more than one in a single question for if you have more than one (multiple) answers.

- For open ended questions, write your opinion precisely in spaces provided.
- For further explanation use the attached sheets by indicating the questions' number.

Confidentiality: The information obtained from the respondents is used only for this research purpose. Therefore, the respondents have to feel free and provide honest response. At last, I want to thank you in advance for your devotion in filling the information and on time reply.

I. Ownership and background of the company

1.1 Types of the ownership

A. Foreign (FDI) B. Domestic C. Joint venture D. Other (specify) _____

1.2 When was the date of establishment/ start of this business in Ethiopia?

1.3 If the answer for 1.1 is local (domestic), then

1.3.1. What is the form of investment? A. Private limited company B. Share company

C. State-owned D. Cooperative E. Other (specify) _____

1.3.2 What is your level of education? A. Secondary school or below B. Diploma

C. Degree D. Masters or above

1.3.3 What were you doing before getting in to this business?

A. Engaged in other business B. Employed in government institutions C. Employed in other companies/ institutions D. School graduate E. Others (specify) ____

1.4 If the answer for 1.1, is foreign /joint venture,

1.4.1 What is the country of origin /nationality of foreign owner/s? _____

1.4.2 Is the company established as new or it was operating elsewhere and started investment in Ethiopia? A. It is newly established B. It was engaged in other industry C. It was operating elsewhere with the same industry

1.4.3 Is the manager and owner of the company the same? A. Yes B. No

1.4.4 What is the nationality of general manager? A. Ethiopian B. Expatriate

1.4.5 What is the sex of owner (manager)? A. Female B. Male

1.4.6 Why you have chosen Ethiopia for investment on this particular industry? Write them in rank order as 1, 2…

1. Favorable climatic & environmental conditions ____ 2. Its proximity to main customer market____3. Incentives and improved investment code_____4. Availability of cheap labor_____ 5. Better security___ 6. Low cost for land_____

II. Input-output structure and territory of production and distribution

1. Inputs

2. 2.1 What are important inputs used for production?

Types of Input	Imported/ locally (use code2.1.2)	Directly imported/ purchased from importers (use codes 1.1.2)	Regular supplier/purchased on spot market (use codes 2.1.3)
Planting materials/seeds			
Fertilizers			
Insecticides			
Fungicides			
Other chemicals			
Green house materials &equipment			
Tractors			
Irrigation materials &equipment			
Packing materials			

N. B For 2.1.1 use A=for imported, B=for locally produced

For 2.1.2 use A=I directly import, B= I purchase from importers

For 2.2.3 use A= I have regular supplier, B= I purchase on spot market

2.2 If imported materials are locally available, what is the reason for importing?

A. High price B. Low quality C. Not adequately supplied D. Other (specify) ____

2.3 What has been the trend of prices of the major inputs have been buying since your establishment? A. Decreasing B. Increasing C. Remained Stable

2.4 What are the major problems that you face in securing inputs?(Most of the time=A, some times=B, occasionally=C, not a problem=D)

1.4.1 Low quality_____ 1.4.3 High price_____

1.4.2 Delay in supply_____ 1.4.4 Fluctuating price_____

2.5 What is the source of water supply for irrigation and other uses?

A. River C. Ground water (bore hole)

B. Lake D. From the water sys supplied by government

2.6 What type of irrigation system do you use to irrigate your farm?

A. Drip irrigation B . Flood irrigation C. Sprinklers D. Other (specify)_____

2.7 What is the source of power for your industry?

A. Electricity from main grid lines B. Owner generator C. Both

2.8 If the answer above is 2 or 3, why you choose those alternatives?

A. Main grid power is not available at all B. Main grid power is available but not sufficient

C. Due to frequent power failure D. Other reasons (specify)_____

2.9 Which projection mechanism do you employ on your farm?

A. Shaded field D. Shaded field and green house

B. Green house E. Hothouse and green house

C. Hothouse F. Shaded field, green house & hothouse

2.10 Do you use additional light? A. Sometime B. Usually C. Not at all

Location

2.11 Location of the industry, Regional_____zone_____,woreda_____kebele_____

2.12 What are the reasons for choosing your specific region/locality?

(Critically important=A, highly important=B, fairly important=C, less important=D, not important=E)

2.12.1 Its closeness to airport_____

2.12.2 Availability of water for irrigation_____

2.12.3 Topographic and pedological /soil factors_____

2.12.4 Infrastructure and service availability_____

2.12.5 Availability of labour force_____

2.12.6 Ideal climatic condition_____

2.12.7 Availability and low price for land _____

2.13 What is the size of your farm (at start_____hectare, at this _____ hectare?)

2.14 What are your products? If your products are more than one please provide percentages for each product A. Fruits___% B. Vegetables___% C. Flowers___% D. Others (specify)_____%

Logistic/ Cold Chain Management

2.15 How do you rate the condition of cooling facilities at your production point? A. Excellent B. Very good C. Good D. Adequate but not complete due to various reasons E. Poor

2.16 What do you use to transport your products from production point to airport? A. I have my own refrigeration truck B. I use rented one C. I use jointly with other growers

2.17 How do you rate the efficiency of your means of transportation from production point to airport in terms of its capacity, speed (time), keeping quality of products as required? Use codes (Excellent=A, adequate=B, moderate=C, inadequate=D poor=E).

2.17.1 Its capacity_____ 2.17.2 Speed____2.17.3 Keeping quality of products_____

2.18 How do you rate the condition of cold storage at airport in terms of use codes (Excellent=1, adequate=2, moderate=3, inadequate=4, poor=5)

2.18.1 Storage capacity_____2.18.2 keeping quality of products at required level, _____

2.18.3 Management and timely delivering of service to you_____

2.19 How do you rate airfreight, service in terms of the following parameters? Use codes (Excellent= A, adequate=B, moderate=C, inadequate=D, poor=E)

2.19.1 Flight frequency/timing_____ 2.19.3 Required volume_____

2.19. 2 Freight cost/charge _____ 2.19 .4 Timely delivery of service_____

Export and/ Market

2.20 For which market you are producing A. for local market only B. For export only C. For both

2.20.1 If for both (local ____%, export____ %)

2.21 What is the modality of selling/exporting? A. Sell to other exporter B. I myself/ Company itself exports

2.22 Which region is your target of export? (Give percentage for each if more than one)

A. Europe___% B. Middle East (Dubai)____% C. Russia ___% D. USA___% E. Others (specify) ___%

2.23 If Europe is the target of your export, where is the final density for your products? (Multiple answers is possible, give percentages of your estimates)

A. Germany_____% B. Netherlands_____% C. Italy_____% D. UK_____% E. France_____% F. Switzerland_____% G. Other (specify) _____%

2.24 How many times do you export per year? A. Only once B. Twice C. Three times

D. More than three times

2.25 Do you export for seasonal markets or for year round consumption? A. Seasonal markets B. For year round consumption

2.26 How many days it takes for your product reach the point of final sale on average? _____

2.27 Have you made any charge regarding shortening the number of days that your products reach final point of sale? A. Yes B. No

2.27.1 If yes, from_____ days to _____days

2.28. What is the distribution channel for your products /what is your direct buyer?

A. Directly to auctions B. Auctions via agents C. To improve whole sellers D. To a retail chain via agents E. Directly to a retail chain F. I have import subsidiary there G. Others, specify ___

2.29. If it is to retail chain, which among the following? A. Supermarkets B. DIY department stores C. Garden centers D. Florists

2.30. If you used more than one channel, with which you started export? _____and to which you know exporting? _____

2.31. Why you changed the distribution channel your buyer? A. To get more price per unit of product B. To get more market information C. To sale more volume D. To get technical support E. To have continuous relationship F. To previous buyers excluded me

Governance

3.1. What type of transportation relationship do you have with your trade partner buyer? A. Spot market B. Arm's length temporal relationship C. Standing order relationship D. Vertically integrated E. Others form of (specify) _____

3.2. What are most critical success factors that are required by your buyers? Please give ranks as 1, 2, 3, ----------

Nº	Critical success factors	Rank order
1	Price of the product	
2	Quality of the product	
3	Volume of the product	
4	Consistency in quality	
5	Consistency in timing	
6	Consistency in volume	
7	Types input used in production	
8	Types of processes /techniques used in the production	
9	Logistics	
10	The way horticulture products packaged	
11	Innovation	

3.3. Do your buyers require you to be certified /registered in any of the following programs, which are concerned with regulating quality, environment or safety of the employees? (Compulsory =A, Optional =B, Not Necessary =C. Not Known =D) A. EVEP-GAP C. Other (specify) _____ B. MPS (The Milieu Project Sierteelt), Environmental Program

3.4. To what extent you are subject to inspection and audit from the agencies who offer certificate on above issues? A. Strongly B. Normal C. To some extent D. Not at all

3.5. Is there any code of practice /label initiated in Ethiopia regarding environment employment? And safety of the workers employed in the industry? A. Yes B. No

3.6. Who sets the quality standards for your products?

A. You yourself C. I produce known /standard products

B. Buyers D. Others (specify) _____

3.7. What will happen to you, if your products are not as per the standards set?

3.8. Do you do any monitoring or control on your program? A. Yes B. No

3.9. Do your buyers provide you technical support? A. Yes B. No

3.10. If the answer above is yes, what type of support you get? Multiple answers are possible?

A. Financial support D. Assist in acquiring equipment and machinery B. They send exports C. Provide training E. Introduce new technology F. Consultancy in management system

3.11. Who or what determines the types of products that you are produce?

A. Market B. Parties involved in distribution channel (buyers) C. You yourself

3.12. Who or what determines the types of processes?

A. Parties involved in distribution channel (buyers) B. You yourself C. Both

3.13. Who or what determines the logistic arrangement (how much and when to export)?

A. Market B. Parties involved in distribution channel (buyers) C. You yourself

Market Structure

Nº	Structure	All of the time	Most of the time	A good bit of the same	Some of the same	Hardly ever	Never
1	Do you export to the same party repeatedly?						
2	Is the cost to switch trade partners low?						
3	Do you supply your products according to customer's specification						
4	Do the imposter buyers monitor and control your production						
5	Are you and your trade partner depends on each other?						
6	Are you dependent on large buyers						
7	Are you vertically integrated into a chain?						

Institutional Framework

4.1. How do you rate the availability and adequacy of infrastructure and services in the country that support your production?

(Poor=A, Inadequate =B, Somewhat adequate =C, Adequate =D, more than enough =E)

4.1.1. Road _____ 4.1.2. Airfreight /airport service _____4.1.3. Telecommunication_____

4.1.4. Customs /clearance services_____ 4.1.5. Power /electricity_____

4.2. How do you see the laws or regulations that affect your business in the country? A. Highly encouraging B. Somewhat obvious C. Workable D. Impeding /obstacles

4.3. Have you ever received business support services from the following institutions?

A. EHPEA B. Ethiopia export promotion agency C. Chamber of commerce D. Others (specify) _____

4.4. Have your received the following services and how they are made available?

Nº	**Types of services**	**Who provide services**	**How it is available A= paid , B= free**
1	Research on variety development, soil, adaptation etc.		
2	Quality improvement		
3	Technology, improvement		
4	Marketing		
5	Management consulting /training		
6	Legal services		
7	Skill training for workers		
8	Setting quality standards for the products		

Use these codes to fill column "who provide services?"

A= Government agencies B= Trade organizations C= EHPEA D= EIA E= EHDA

F= Capable horticulture enterprise G= other private institutions

4.5. Do you think that current market information is important for your competitiveness? A. Highly important B. Important C. Less important D. Not important

4.6. Which sources do you use to get market information like color, smell and shape of the products, timing and other preferences of the consumers? Use codes (frequently=A, often=B, sometimes=C, never=D) 4.6.1 Electronic database _____4.6.2 Telephone_____4.6.4 Media_____4.6.5 others (specify) __ 4.6.3 Fax_____

4.7. Do you use the market information you obtained for adjusting your production to current market? A. Yes B. No

4.8. If the answer above is yes, what adjustments do you made on your production to current market?

4.9. Please mention how you are able to access market

Upgrading

Product upgrading

5.1. Is your product and user product or buyers add value to it? A. End users' product

B. Buyers add values to it

5.2. What activities are performed by buyers? A. Marketing B. Coordinating logistics

C. Quality assurance D. Processing /packaging E. Advertising F. Others (specify) _____

5.3. Have you make change on /upgrade you products for the last couple of time? A. Yes B. No

5.4. If you have been upgrading your products, what did you do on it? Use codes (All the time =A, most of the times=B, sometimes, =C, never =D)

5.4. 1 I developed my own new produce /new variety_____

5.4.2. I started to produce more demanded variety_____

5.4.3. I added quality require by changing its size, shape or color by innovation____

5.4.4. I added value by changing the way it is packed packaged _____

5.4.5. I prolonged its vase –life using some technologies _____

5.4.6. Others (specify) _____

5.5. How do you rate the importance of the following as constraint to upgrade your products? Use codes (Highly constraint =A, a constraint =B, to some extent =C not constraint =D)

5.5.1 Limitations of knowledge _____5.5.2 Lack of information on characters required _____

5.5.3 Lack of technology or infrastructure _____ 5.5.4 Limitation of finance _____

5.5.5 Others (specify) _____

Processes upgrading

5.6 To what extent did you undertake process upgrading improvement? (All of the time= A, most of the time=B, sometimes =C, never = D)

5.6.1 Introduce now machinery equipment ____5.6.2 Employ now technology to control quality___ 5.6.3 Introduce new management system_____

5.7 What are post-harvest activities that you under take before export? A. Grading B. Grading, packaging, labeling, preparing mixed bouquets C. Grading, packaging D. Others (specify) _____

5.8 How do you value research and development for the competitiveness of the industry?

A. Highly important B. Important C. Less important C. Not important

5.8 Do you undertake research on your competitor's operations and products? A. Strongly

B. Adequately C. to some extent D. Not at all

5.9 Do you conduct research on your competitor's operations and products?

A. Strongly B. adequately C. to some extent D. Not at all

5.10. Why you conduct research on competitor's operation or products?_____

5.11. Do you experience any trust and cooperation in your distribution chain with your trade partners? To what degree? A. strong B. moderate C. to some extent D. Weak E. Do not exist

Thank you in advance

Annex C

Checklist for Focus Group Discussion with Horticulture Experts in EHDA, EHPEA, EIA and Farm owners in Sebeta area

1. What are the main opportunities exist to expand Ethiopian horticulture industry?

   _____

2. What are the main challenges that the Ethiopian horticulture industry is facing?

   _____

3. What strengths have seen in process of Ethiopian horticulture industry expansion?

   _____

4. What are the main threats exist in to expand Ethiopian horticulture industry?

   _____

5. Which organization should perform what duties in order to make horticulture industry effective and generally what do you recommend?_____

Thank you!

Signed Declaration

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

Name: Kebede Keno

Signature: _____

Date of Submission: _____

Confirmation

This thesis has been submitted for examination with my approval as a university advisor.

Name: Issac Paul (Ph.D)

Signature: _____

Date of Approval: _____