

# The Feasibility Study on Urban Horticulture for Sustainability- A Case Study on Robe Town

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**Abstract:** *Bale-Robe is one of the urban centres in south central Ethiopia. Around 33,115 households has 73,859 people are living in Robe Town. The migration rate is 17% and urban unemployment is around 45% and rest 55% is very ideal from the work. Raising per capita income is the emergence. The small and medium-sized production and distribution of agro and horticulture products are generally considered the engine of economic growth, as well as a means for poverty reduction by virtue of their numbers and their significant economic and social contributions. Believe that, urban horticulture plays significant role for sustainability in Ethiopia. This Sector must recognize for contribution to food, nutrition, economy, employment, social security, health and environment. Awareness about horticulture and its importance is unidentified for sustainability and giving awareness to the young generation is prime importance for long run sustainability in Ethiopia. With a view, the study was conducted whether urban horticulture is feasible or not, to produce in Robe Town.*

**Keywords:** Urban Horticulture, Feasibility & Sustainability

## 1. Introduction

Horticulture is the science, technology and business involved in intensive plant cultivation for human use. Food is basic need for human life. In addition, Horticulture provides nutritional support. Ethiopian's have the most to benefit from the rising importance of horticulture. Riley Anderson defined urban horticulture' refers to the relationship that humans and our society have with plants or more broadly with nature.

Bale-Robe is one of the urban centres in south central Ethiopia. The around 33,115 households has 73,859 people (2013 Municipality Census) are living in Robe Town. The migration rate is 17% and urban unemployment is around 45% and rest 55% is very ideal from the work. Thus, urban horticulture will play major role for sustainability in Robe Town.

## 2. Problem Statement

Urban Horticulture plays a crucial role of environmental protection, Social and economic development.. The study confined to the feasibility of urban horticultures in Robe town

### Objectives of the Study

The study was carried out with an objective to examine the feasibility for urban horticulture in Robe town.

### Hypothesis (H: 1)

The study assumed (Hypothesis) that the (H: 1): Robe town is feasible for urban horticulture.

## 3. Material, Method and Tools

The study employed a random sample of 350 respondents from Robe Town. To test the hypotheses, Sample design created, a total of 14,772 Commercial workers are in Robe

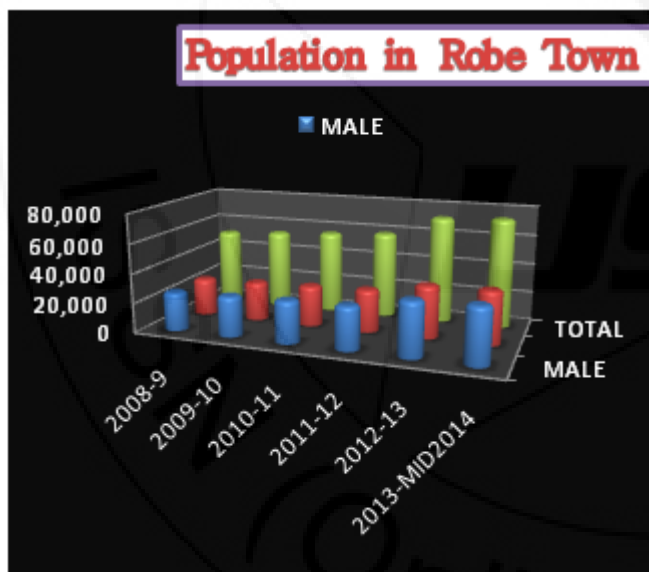
town, 1% designed for Interview. 2% of 2216 Farmers (45 farmers), 25 from Merchants, 25 from Handicraft workers, 30 from State workers (4136), 50 informal workers (2954) and 28 unemployed peoples were interviewed. The collected data analyzed with the help of statistical techniques like ratios and, percentage.

## 4. Review of Literature

A deep probe into the study on importance horticulture and urban horticulture for sustainability reveals that the Horticulture products are the Food which provides nutritional support. Around 2,000 plant species (WIKI) are cultivating for human use. In Sub-Saharan Africa, Kenya is the largest supplier to the EU with over 45,000 tons in 2000. It earned, Kenya Shilling 71.6 billion in 2009 (MoA) high demand for the products with a greater value and returns on investment and ample scope to expand horticulture industry for economic development. Ethiopia produced \$113 million from flowers and other horticulture product exports last year. During 2008-09, income generated USD 118 million was from export of 1.2 billion flower stems and \$20 million from sales of 43,000 tons of horticulture products (EHDA, 2010) Alzar Ahmed(2007) Conducted a study on Horticulture marketing in Ethiopia (2007) reveals that most of horticulture companies are profitable. World Bank (2004) reported Poverty Reduction and Economic Management can possible. A Study conducted by Sisay Habte (2004) reported In Sub Saharan Africa (SSA) an increase of about 25% is observed In Ethiopia, a total of almost 261,875 hectares in 2003. Thus it reveals continuously increase in the production of Horticulture products. Philip English of World Bank reported The value of fresh fruit and vegetable exports increased, Sub-Saharan Africa now exceed \$2 billion trade. Thus, review reveals that, urban horticulture will play role in sustainability for Ethiopia.

## 5. Test & Result

Robe, more commonly known as Bale Robe (in order to differentiate it from other towns in Ethiopia which are also called Robe), is a town and separate woreda in south-central Ethiopia. Located in the Bale Zone of the Oromia Region, this town has a latitude and longitude of 7°7'N 40°0'E with an elevation of 2,492 meters (8,176 ft) above sea level. It is located about 430 kilometres by road from Ethiopia's capital Addis Ababa. Robe is located in Bale Zone, as one of the urban centres in south central Ethiopia. Robe has unique feature in the Ethiopia. Robe is interconnected center for several villages and remote places like Goro, Malayu, Agrafa, Dinsho, Sof-umar, Gobba, Dollomanna so on. The growing population in Robe (4.4% Growth Rate), around 33,115 households has 73,859 people (2013 Municipality Census) are living in Robe Town. The migration rate is 17% and urban unemployment is around 45% and rest 55% is very ideal from the work. During 2009, 26,210 male and 25,340 people are living in Robe Town (Total 51,550). 53,817 during 2010, year 2011, 28,567 male and 27,618 female (Total 56,185). During 2012, total 58,657 people were living. A drastic increase during 2012-2013 shows 23.206% increased ( $72,269/58657=1.23.206$ ). During 2013-14, a total of 73,859 in which 37,668 male and 36,191 female is recorded (Bitootessa,2000, Roobe/Baalee). The following Bar Chart shows the how population has increased in drastically in Robe Town. Table Showing Population in Town.



The Bar Diagram depicts the result of increasing trends in Robe town, a total of 51,550 people are living, and it is the base year 2009-10. Next year 4.398 % (2010-2011) and 10.89% increased during 2011-12. 11.38%, shows a drastic changes in growth within 2 years. 14.0192% increased in short period of 3 years and finally 73,859 during 2013-mid 2014(EC, 2006). These results are 50% biased. More than 100,000 people are living. That Robe town population has drastically changing. To conclude, these changes will enhance the urban horticulture and it will give the sustainability in Ethiopia.

## 6. Testing of Hypothesis

Urban horticulture has a favorable and feasible in Bale Robe town, many factors strides on urban horticulture such as Climate conduciveness (The average annual temperature in Robe is 14.4 °C. The rainfall here averages 930 mm, Source: enclimate), labor abundance (Active workers Male 23,726 and female 22,805 age group between 18-60, total population 73,859 in which 37,668 male and 36,191 female during 2013-2014, consider other informal workers, even under age can also employ in urban horticulture, 24,373 total underage, Source: City Municipality, Robe ), Plinth area( 40x60,50x60 60x80 80x100 all dimensions are in feet, Minimum 15% - 60% area occupied for construction and reaming can be utilized for Urban horticulture), Profitability from sale( Zero -5% expenditure and 95- 100% Profit), Marketability( 100% demand for consumers and commercial purpose), access to market( Nearness to market2-5% cost for transport), cost benefit(1:10 Benefit), economy( Individual households and country as whole) and, migration( creates more demand), livelihood( 10-20% can depend their livelihood) and work engagement( ideal time management), self employment generation, GDP( Agri and Horti in Ethiopia , 55%), export, nutrition, health, social benefit, environmental benefit and overall sustainability

## 7. Major Findings

The Major findings of the study reveal that the urban horticulture is highly feasible in Robe Town but lack of awareness is denying the urban horticulture and its role for sustainability

## 8. Suggestion

This report draws the attention of policymakers on urban horticulture; Policymakers recognize the sector's current contribution to the urban food supply and to urban livelihoods and give awareness to the young generation is prime importance and consider urban horticulture is emerging area in Ethiopia.

## 9. Conclusion

Urban Horticulture will play important role in sustainability in Ethiopia. Town like Robe is one of the fast developing urban centres. Giving awareness is most important and developing Urban Horticulture in Ethiopia will help us to more Sustainability for next generation

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