ADDIS ABABA UNIVESITY

SCHOOL OF GRAGUATE STUDIES

Satellite City and its Importance for Urban Socio economic Development, the case of Addis Ababa and its Surrounding Towns

A Thesis submitted by

Yonatan wodajo

Submitted to the Department of Public Administration in Partial Fulfillment of the Requirement for the Degree of Masters in Public Administration

Addis Ababa University

Addis Ababa, Ethiopia

December, 2014

ADDIS ABABA UNIVESITY COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF PUBLIC ADMINSTRATION AND DEVELOPMENT MANAGMENT

Satellite City and its Importance for Urban Socio economic Development, the case of Addis Ababa and its Surrounding Towns

By

Yonatan wodajo Miteku

Advisor

Jemal Abagissa (PhD)

A Thesis submitted to the school of graduate studies of Addis Ababa University in partial fulfillment of the requirements for the degree of Master in public management and policy specialization in development management

December, 2014

Addis Ababa, Ethiopia

ADDIS ABABA UNIVESITY

SCHOOL OF GRAGUATE STUDIES

DEPARTMENT OF PUBLIC ADMINSTRATION AND DEVELOPMENT MANAGMENT

Satellite City and its Importance for Urban Socio economic Development, the case of Addis Ababa and its Surrounding Towns

BY

YONATAN WODAJO MITEKU

Approved by Board of Examiners:

Advisor	Signature	Date
External Examiner	Signature	Date
Internal Examiner	Signature	Date

Table of Contents

List of Tables

List of Figures

List of Annex

ACRONYMS

AACG	Addis Ababa City Government
AACRA	Addis Ababa City Road Authority
CSA	Central statistical authority
FDRE	Federal democratic republic of Ethiopia
GHEA	Greater Horn East Eastern Africa
GO	Government Organisation
WDR	World Bank World Development Report
UN	United Nations
MoFED	Ministry of Finance and Economic Development
AU	African Union
UN-ECA	United Nations Economic Commission for Africa
NGOs	Non-Governmental Organisation
UNDP	United Nation Development Programme
UN-HABITAT	United Nations center for Human settlements
UNPD	United Nation Population Division

ACKNOWLEDGMENTS

First and foremost, I shall praise God who gave me the courage to make this study possible from the beginning until its completion.

I want to thank and express my gratitude to my advisor Dr. Jemal Abagissa for his unreserved guidance and encouragement that made this study to be completed successfully.

I am very glad to express my sincere gratitude and appreciation to Ministry of urban development and construction Bureau of urban planning, sanitation beautification, particularly the three departments Research and study, Training and development and urban plan evaluation implementation, monitoring and feedback department', and Addis Ababa and the surrounding Oromia integrated development plan project office' workers for their encouragements and material supports which significantly contributed to my study.

My heartfelt thanks are also extends to my family, my mother sisters and my brothers, Sisaynesh, Nardos, Semhal, Eyerus, Kelemoa, Zelalem, Tesfu, Baky and Markos, You are all the core of my existence and I'm blessed and grateful for all the love and joy you have brought to my life. Specially my sister semhal for you were at front in my endeavor of every sort including provision of moral support in doing this paper.

Last but not the least, I want thank to my friends, Dere, Samy, Berhane, Jenu, Kidest, Nur (sharing the concept), Hagos, Bizen, Yonas, Hewan, Yilma, Zelalem and all the others for their constant encouragement and help. I appreciate all the love and support you gave me and I pray that God continues to bless you all.

ABSTRACT

The unprecedented pace of urbanisation in Addis Ababa has created a sense of urgency to address the agglomeration effect of urban facilities, particularly in social and physical infrastructure of the city. This thesis examines the socio economic trends in Addis Ababa, and considers alternative responses through the lens of satellite city development in surrounding towns of Addis Ababa. It illustrate the positive prospect of satellite city to increasing the socio-economic and physical infrastructure of urban land use, transport and buildings; access to improving water, waste management and other facilities. Therefore, in order to address those issues, the researcher used primary data collected through structured questionnaire, Key informant interview and referred to secondary source of data. As result, the collected data and information were compiled, analyzed and finally, puts in the form of manageable to presentation. Hence, the outcomes of this thesis provides specific attention to urban area to introduce the satellite city concept for major towns in the surrounding towns of Addis Ababa and the study highlight the general profile of surrounding towns and also incorporate the brief study of Gelan, Dukem, Suluta, Burayu, Holeta, Sebeta on the loop around Addis one which serves a significant regional function for northern, southern, eastern and western part of Addis Ababa. These towns have important land holdings and resources in the areas and can achieve the required outcome with an appropriately developed Master Plan. These towns has planned future role of the town related functions could be allowed to develop urban infrastructure facilities such as transport, housing, health facilities, water, sewerage, drainage and solid waste management to channelize their future growth and to enhance the sustainability of urban infrastructure. Accordingly, if these town well-articulated as satellite city form at which all facilities will be contained; ranging from economic activity (industry and commerce) and social services (education, health, house and leisure) It provides citizens more residential area, and thereby, improves the living quality of the people and also reflect the image, culture and wellbeing of the communities they serve, at the same time they play a dual role by serving both as satellite towns of Addis Ababa and capitals of the rural countries and thereby reduce the burdens of Addis Ababa in many ways.

Key words: Satellite City, Urban Development, Surrounding Towns, Addis Ababa

CHAPTER ONE

1. INTRODUCTIO

Excessive concentration of population in the cities and unprecedented increase in the demand for infrastructure facilities and amenities has led to problems of land shortage, housing shortfall, inadequate transportation etc. Management of essential infrastructure like water supply, sewerage, drainage, solid waste disposal has become more challenging. The concentration of economic activities and population in Addis Ababa has put tremendous strain on the delivery of services. At the same time there has been growing realization that there is a need for decentralization of activities so as to reduce the burden on the mother city.

Addis Ababa is regarded as the diplomatic center of Africa. This fact is attributed to Ethiopia's historical influence in the continent, in addition to which the culture, the weather, the hospitality, the security, the relative economic stability to name but a few, makes many governmental and non-governmental organizations choose Addis Ababa for their headquarters now started to face congestion in addition to low infrastructure utilization.

The surrounding towns in other hand properly built as a satellite towns will, therefore, provides international as well as local organizations with a more hospitable working and living environment thus supplementing what Addis Ababa has to offer. This will in return maintain and augment Ethiopia's grasp of the international organizations, investors and reduce future congestion.

1.1. Background of the study

Taking together the available data on urban population and infrastructure, it seems likely that there has been acceleration in urban growth and that Addis Ababa is maintaining its position as the manufacturing and services hub even if the natural population is increasing relatively slowly. The evidence that shows, however, insufficient to suggest that other nearby towns have 'taken off' as satellites of Addis Ababa, but instead activity seems to have migrated more to distant cities. This is the basis on which the development of satellite towns is needed in order to develop modern vibrant urban form in the surrounding towns of Addis Ababa which includes:

- A mixed use activity centers that allow alternatives to regional and local agencies of the surrounding towns.
- To increasing the attractiveness of an area through investment in high-quality of urban facilities.
- To build vibrant locations that makes use of proper traffic system rather than choke on the effects of congestion.

The satellite towns, designed to strengthen economic and social activities of the surrounding towns and Addis Ababa, through modern use of city planning strategy, which includes well- structured urban facilities and transportation facilities taking into consideration their common interests.

The development of satellite city is not only to provide solutions for urbanisation problems, but also able to meet international standards, the surrounding towns and Addis Ababa will have their own internal plan. While these cities enjoy a level of cooperation with Addis Ababa on socio economic and other issues of mutual interest, and to strengthen their relationships in terms of economical social benefit and to create

a self-sufficient city to benefit their local people as well as for the surroundings rural people and aim to create a sustainable local urban infrastructure with separate self-governing region.

Article 49(5), of the Ethiopian Constitution clearly states that "the special interest of the State of Oromia in Addis Ababa shall be respected in terms of provision of social services, utilization of natural resources and joint administration matter".

The main reason for developing satellite towns to ease the co-operation and development of surrounding towns and Addis Ababa to control the urban sprawl of this city, Plus joining both area with infrastructure and other activities could create better opportunity for mutual development and aims to modernize the city in urban development's once more promoting the city's historic social and cultural heritage. It is obvious that cities play a significant role in social, economic, political, and cultural transformations of the people.

Taking into account, the existing scenario and the urgency to augment urban infrastructure this study assess the development of satellite towns in the surrounding of Addis Ababa by taking selected surrounding towns so as to reduce the burden of the mother city. The satellite towns aim to create economically productive, efficient, equitable and responsive cities in an integrated framework with focuses on economic and social infrastructure, basic services to urban poor and the satellite towns should be spatially separated from the mother city.

1.2. Statement of the problem

Addis Ababa is not excessively large compared with other African capitals but it has nonetheless started to face congestion, low infrastructure utilization, relatively weak traffic management and in adequate public facilities.

For most of the developing economic cities of the world, urbanization is becoming a great challenge– be it environmental, economic or social – as they lack well-built and wide resource base that adequately fulfills basic requirements associated to their ever increasing residents.

According to Urban Development Indicators of Addis Ababa (2006), mayors from 135 cities worldwide have rated those pressing urban problems as: unemployment 63%, inadequate housing 43%, Garbage Disposal 38%, violence/crime 36%, poverty 34%, sanitation/sewerage 33%, inadequate social services 22%, civil apathy 22% and discrimination 14%. Most of the spotted factors are also true for Addis Ababa (MoFED, 2010).

Another aspect of urbanization in Addis Ababa is the wide range of polarization in the level of urbanization. Slums are emerging in different parts of the city, slum dwellers on the basis of quality of housing, overcrowded living spaces, access to and quality of infrastructure, security of tenure and are the only choices for the majority of the city dwellers that are poor.

The need for housing is not integrated with the need to prevent horizontal expansion and hence saving land. Formal and informal settlements are stretching out horizontally from the central capital in all directions. In Addis Ababa, squatter settlements are mainly located in the peripheral areas of the city.

Generally, sprawl and land misuse in Addis is a result of population pressure (rural-urban migration), in physical terms, this high growth has puts a tremendous pressure on both social and physical infrastructures. Further, the city has been undergoing horizontal expansion as the result of rapid urban development and increase in number of population leads the city to become a mega city status.

In order to mitigate these challenges, a multitude of efforts with a variety of development dimensions is a must. Hence, this research work has examined satellite town's development for various aspects of urban development the case of Addis Ababa and surrounding towns so as to become a safe and livable city for healthy, productive society with improved access to the social services and infrastructure. As a capital city that should developed a strong set of metropolitan of the surrounding towns of which on the loop around Addis Ababa, these towns designated as satellite towns to absorb population growth, unemployment and housing problem.

Finally, one would expect that the role of satellite towns is not studied in Ethiopia so far. Thus this paper outlines detailed examination of how satellite cities have evolved, or what their impacts have been.

1.3. Research Questions

This paper attempts to answer the following question

1. What is the role of satellite city for urban development?
2. What are the opportunities of satellite city development for future surrounding towns?
3. What are socio-economic problems in Addis Ababa, due to population pressure and how satellite city approach reduces the problem shown in Addis Ababa?

1.4. Objectives of the Research

1.4.1. General Objectives

The objective of this study is to introduce satellite city approach and its importance for urban socio economic development. Basically, it emphasis on how satellite city approach important for the development of modern vibrant urban form in the surrounding towns, and how these towns minimize the burden shown in Addis Ababa, particularly the growth rate increased by in-migrations from rural areas starting early in its existence and it began rise to megacity status and now the population has been growing dramatically. This high growth has puts a tremendous pressure on both social and physical infrastructures.

1.4.2. Specific Objectives

- To examine contributions of satellite city for urban socio-economic development;
- To explore urban challenges encountered in Addis Ababa city and to forward optimal solutions;
- To recommend on what shall be done so as to have a better access on urban development;

1.5. Significance of the Study

The study discovers the importance of satellite city implementation in surrounding towns where urban activities are already taken place. It also reveals the impacts of satellite city on local people, resources and role of urbanization in local economic development. Thus, the findings of the study can be replicated for other capital city

surroundings of Ethiopia by comparing the existing realities and potentials of the respective surrounding towns. This can be important documents for policy makers to design guidelines and regulations on importance of satellite city implementation for surrounding towns of Addis Ababa. The findings can also help the respective surrounding town administration in coordinating different stakeholders towards the development process of modern vibrant urban form.

1.6. Scope and Limitations of the study

1.6.1. Scope of the study

While this study is conducted on satellite city development and its importance the case of Addis Ababa city and surrounding towns. The situations indicate that Addis Ababa has been expanding horizontally over the peripheral areas to include lands that were previously under the rural village. With the city's expansion and the existing problem on the city, pose a multitude social and economic burden on the life of the people.

Therefore, the study primarily focused on the positive prospects of satellite city development and examines possible solutions to minimize the problem that has been stated in the afore-mentioned.

1.6.2. Limitation of the study

This paper as it is indicated in the above it is the first of its kind for academic research in Ethiopian context, and the in availability of adequate and recent data, from government and non-government organizations during the research process, considered as a major limitation of the study. The other limitation of the study is also very limited awareness

of satellite city concept in most of the people. Furthermore, this study relay on the available data of surrounding towns.

1.7. Structure of the Research

This thesis divided into five chapters. It starts with the introduction of the Paper followed by literature review and after methods of data collection then description of the surrounding towns and again result and discussion finally conclusion and recommendation.

The first chapter gives an introduction about the paper. It starts by the introduction / background of the problem and then subsequently the chapter discusses the research objectives and the questions that this research will address.

The second chapter starts with the definition of important concepts and terms and that leads to a more detailed review of literature on definition of urbanization and urban growth followed by analysis of population pressure, horizontal expansion and problem of urban infrastructure in Addis Ababa, concept of satellite city and characteristics and definitions of satellite cities and satellite city in other countries. In the Third chapter, a discussion is presented on the adoption of methodology for this research. Chapter Four; result and discussion, the primary data obtained from respondents and informants and secondary data gathered from different data sources organized, combined and interpret the results and also assessment of the researcher were used to explain in related to the positive prospects of satellite city development. The Five chapter presents conclusion and recommendation.

CHAPTER TWO

REVIEW OF LITRATURE

2.1. URBANIZATION AND URBAN GROWTH

Urbanization and urban growth are two different concepts often found in the literature of urban studies. As cited by (Haregewoin, 2005), The distinction should be noted that urbanization refers to proportion of the national population living in urban areas, and urban growth refers to an increase in urban population size, independent of rural population (United Nations Population Division, 2002).

Urbanisation offers opportunities and improved standards of living, in people work and live, higher life expectancy and higher literacy levels as well as better environmental sustainability and a more efficient use of increasingly scarce natural resources. In addition to that urbanisation for women, create access to employment opportunities, lower fertility levels and increased independence (Tacoli, 2012).

Urbanization in other hand viewed and perceived by different peoples a characteristics of social and economic progress and interaction affecting both population and land use. For instance, physical scientists particularly ecologists define urbanization from stand point of the built-up environment (Haregewoin, 2005).

Hence, urbanization has powerful social and physical transformation force throughout the world. It became the driving force for settlement change in periphery area. Urban growth is basically a combination of three basic processes (Redman and Jones, 2004).

- First is rural-urban migration: it is a key source of urban growth since the origin of cities. Rural-Urban migration is driven from perceived economic opportunities, insecurity in rural areas, climate or economic problems, etc.
- Second is Natural increase: this is a combination of increased fertility and decreased mortality rate.
- Third is Re-classification of land from rural to urban categories: Many cities are rapidly growing into their fringe, engulfing former villages and farm lands and transforming them into urban development (Redman and Jones, 2004).

Unlike the developed world where urbanization process trigged by industrialization, the urbanization process in developing countries is characterized by demographic changes such as rapid natural population growth and rural-urban migration, which in turn stimulate by urban growth. Poor African countries are not often capable of managing rapid urban growth. Planning, land allocation, infrastructure and service are inadequate to cope up such situation. As a result, an increasing part of urban population lives in unplanned, often illegal, shanty-towns with limited access to basic needs and with environmental condition that threaten health (UN HABITAT, 2010).

2.2. Urban Growth and Horizontal Expansion of Cities

Urbanization is nowadays a mounting movement seen all over the world, particularly in an alarming rate in developing countries. This makes cities grow both in number and in physical size. For instances, the percentage increase in population it also increase by

more than proportional percentage of an urbanized area. This is a sign that the two growth rates differ and urban area grows in a more rapid pace (Haregewoin, 2005).

Despite the economic benefits, the rapid rates of urbanization and unplanned expansion of cities have resulted in several negative consequences, particularly in developing countries. As cited by (Minwuyelet, 2005), Most cities in developing countries are expanding horizontally and the population is moving to unplanned settlements on the peripheries at the expense of agricultural lands and areas of natural beauty (Lowton, 1997).

Unplanned and uncontrolled expansion of cities' built-up areas usually lead to problems of soil erosion, segregation of low-income groups in ecologically sensitive areas, and increased costs in terms of infrastructure provision, As cited by (Minwuyelet, 2005). In most cities in developing countries the problems relating to rapid physical expansion are not due to land shortage but to lack of appropriate policies and strategies to guide new development, since overcrowding occurs in particular areas and yet at the same time large amounts of land are left vacant or only partially developed in other areas (Hardoy et al., 2001).

About half of the world population lives in urban areas. It is estimated that, by 2020, the developing countries will account for about 75% of all urban dwellers. However, while urbanization brings a number of socio-economic benefits, the rapid increase in urban population ushers in a number of challenges. Urban authorities find themselves heavily challenged in terms of their capacities to provide adequate services such as housing, infrastructure, facilities and employment. The continued expansion of urban areas into the immediate hinterlands often leads to the conversion of potential agricultural lands

into non-agricultural land uses. This takes place at a time when many cities are saddled with the challenge to tackle growing unemployment and poverty (Thomas, 2013).

Some cities have adopted urban agriculture as a strategy to address the increasing urban unemployment, poverty and hunger (Thomas, 2013). This is because urban agriculture supports food security and nutrition, provides employment and generates income for the urban poor in general and the disadvantaged groups such as women, the disabled, the elderly and the unemployed youth. About 200 million urban dwellers in the world participate in urban farming and the sector provides about 800 million people with at least some of their food.

Having defined urbanization, urban growth and expansion, the next question that arises is what are the effects due to rapid urban horizontal expansion in Addis Ababa and what characterizes urban growth as rapid horizontal expansion. As a means of showing different literatures regarding on rapid rate of horizontal expansion in Addis Ababa and its effects on the livelihood of the people.

According to (Meheret, 1999), Addis Ababa is a fast growing urban centre that is beset with problems afflicting most cities in the developing world, including extensive poverty, joblessness, inadequate housing, severe overcrowding, congestion and undeveloped physical infrastructure.

As one of the cities in the developing countries, Addis Ababa has experienced a rapid rate of physical expansion. This trend is largely influenced by spontaneous growth, which has resulted in the emergence and development of squatter settlements. As new houses are being built in the existing squatter settlements, the number and size of squatter settlements in Addis Ababa has been increasing over time. This situation has

aggravated the unplanned and rapid horizontal expansion of the built-up area of the city, which in turn has led to increasing costs in terms of infrastructure and basic urban services provision (Minwuyelet, 2005).

As a result of rapid horizontal expansion and the spontaneous growth, Addis Ababa is now confronted with different types of problems, one of which is the emergence and development of squatter settlements. 'Squatter settlements' refers to those residential housing units built on publicly-owned land without the legal claims, authorization, or permission from the relevant authorities. According to the study conducted by the Urban Development and Works Bureau (UDWB 2002), in the year 2000 the total area covered by squatter settlements in Addis Ababa was 2000 hectares and about 300,000 people were living in 60,000 squatter housing units (UDWB, 2002:2). Major squatter settlements are found in the peripheral areas of the city, where they are characterized by their irregular shape and large plot sizes. As a result, they have significantly contributed to the unplanned and rapid horizontal expansion of the built-up area (Minwuyelet, 2005).

Urban agriculture is defined as the practice of food production within a city boundary or on the immediate periphery of a city it includes the cultivation of crops, vegetables, herbs, fruit, flowers, orchards, parks, forestry, fuel-wood, livestock, aquaculture, and bee-keeping. Urban gardeners around the world are very often rural migrants or immigrants who used to rely on the land for food, or who need supplements to their food supply or income. They tend to be a vulnerable population, and the gardens and farms act as a means of increasing security and health **(**Mara, 2009).

Urban agriculture is a traditional practice in Ethiopia, and the urban-based population is used to keeping cattle, sheep, and chickens, or growing rain-fed crops such as maize

and vegetables, on the plots adjacent to their houses. The ability to grow food in cities helps increase the standard of living, access to healthy and abundant produce, and income of everyone from the most disadvantaged populations upward (Mara, 2009).

The Addis-Ababa City Government has recognized urban agriculture as one of the important tools to end poverty. However, its contribution towards income generation, employment creation, food security, poverty alleviation and environmental protection has remained negligible It was due to the apparent paradox between the latent and actual contribution of urban agriculture in Addis-Ababa City (Thomas, 2013).

Addis Ababa, the capital and biggest city in Ethiopia, where urban agriculture provides income, employment, and security for disadvantaged populations, women, those who are illiterate and/or unskilled, and migrants, but which is quickly becoming endangered through urban expansion (Mara, 2009).

2.3. POPULATION

The positive impacts of urbanisation are being leveraged by the rapidly increasing global urbanisation. By 2030 at least 61 percent of the world's population will live in cities, and by 2060 the world will likely be fully urbanised (that is, more than 80 percent of the world's population will live in cities). However, some cities are performing far below their potential, particularly those in Sub-Saharan Africa, resulting in lost opportunities for their populations and in unrealised development benefits for their region (Cities Alliance, 2006).

Developing cities, like their industrialised counterparts, face considerable uncertainty. Most cities are confronted with the tasks of managing unprecedented population

growth rates and are already unable to cope with existing backlogs (Cities Alliance, 2006).

Addis Ababa, with an area of 540 km is divided into 10 sub-cities and 116 woredas. Hosting 30 percent of the urban population of Ethiopia, Addis Ababa, the capital of Ethiopia and the city is the country's political and economic center, the seat of Head Offices of African Union and United Nations Economic commission for Africa. It also accommodates many international Aid and Development organization and more than 100 embassies. Its population has nearly doubled every decade. In 1984 the population was 1, 412, 575, in 1994 it was 2,112, 737 (UNHABITAT, 2008).

Between 1994 and 2007 the population of Addis Ababa grew from 2.12 million to 2.73 million, and it is currently thought to be 4 to 5 million. UNHABITAT estimates with the current population growth rate of 2.1% the city population is estimated to reach 12 million in 2024 years (UN-HABITAT, 2008).

Figure 1: Spatial structure and Map of Addis Ababa

According to CSA, the projected population of Addis Ababa by size and sex is presented in the following table.

Table 1: population size of Addis Ababa from 2009-2013

Region	Year	Male	Female	Total
Addis Ababa	2009	1,359,000	1,492,000	2,851,000
	2010	1,387,000	1,526,000	2,913,000
	2011	1,420,001	1,560,000	2,980,001
	2012	1,452,968	1,595,668	3,048,631
	2013	1,460,758	1,659,242	3,120,000

Source: CSA, Population projection For Ethiopia, (A.A BoFED, 2013).

Based on the table above, in 2009 the total population of Addis Ababa was 2,851,000 of whom 1, 359,000 were male and the remaining 1,492,000 were female. In 2013 the size of the city population increased to 3,120,000 with an annual growth rate of 2.1%. Out of this population, 53 %(1,659,242) were female, all of the population are urban inhabitants. Generally, the city population has been growing at an increasing rate in the subsequent years mentioned above.

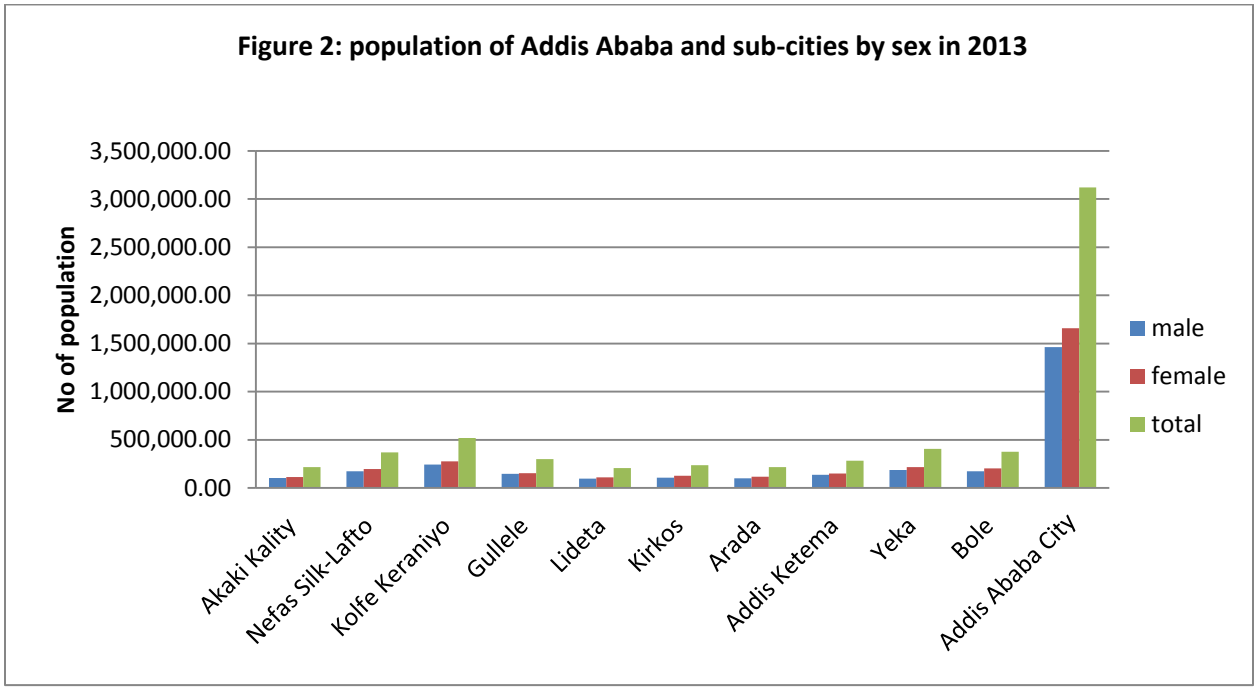
Table 2: The Projected Population of Addis Ababa by Size Sex, Sex Ratio, Area, and Density of The Sub Cities: July 2013

Sub-Cities	**2013**			**Ratio to Total population**	**Total Area in Km²**	**Population Density**
	Male	**Female**	**Total**			
Akaki-Kality	103,437.6	112051	215,488.6	6.91	118.08	1,824.937
Nefas-Silk-Lafto	172,254.9	196969.9	369,223.8	11.83	68.3	5,405.912
Kolfe-Keraniyo	243,139	274364	517,504.1	16.59	61.25	8,449.047
Gullele	144,521.1	153040.6	297,561.8	9.54	30.18	9,859.569
Lideta	95,416.56	110890.4	206,306.9	6.6	9.18	22,473.52
Kirkos	107,060.2	127226.6	234,286.8	7.51	14.62	16,025.09
Arada	100,145.6	117393.2	217,538.7	6.97	9.91	21,951.43
Addis-Ketema	135,082.9	148351.3	283,434.2	9.08	7.41	38,250.23
Yeka	186,837.2	217531.4	404,368.6	12.96	85.98	4,703.054
Bole	172,862.9	201422.6	374,285.4	11.99	122.08	3,065.903
Addis Ababa City	**1,460,758**	**1,659,242**	**3,120,000**	**100**	**540**	**5,777.778**

Source: CSA, Projected Population of Addis Ababa, (A.A BoFED, 2013).

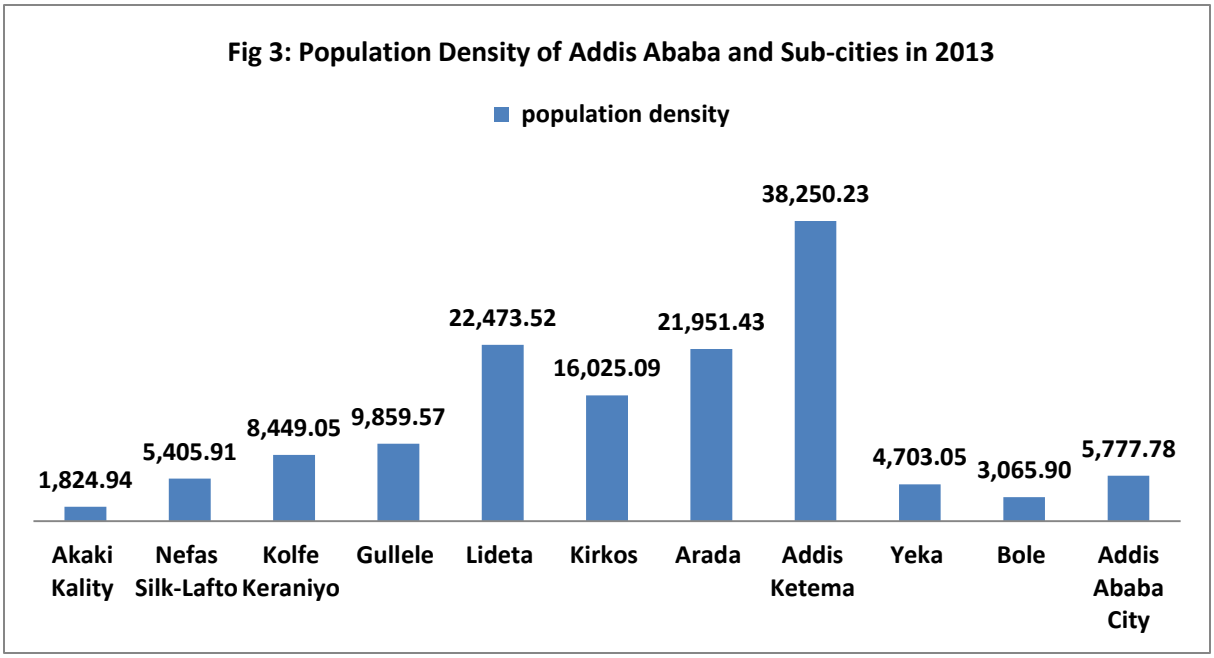
The table above shows that, in 2013 the total population of Addis Ababa was estimated to be 3,120,000 of whom 1,659,242 were females and the rest 1,460,758 were males.

The population size of the sub-Cities varies from sub-city to sub-city. As a result Kolfe-Keranyo, Yeka, Nefas-Selk and Bole, (16.59%/517,504), (12.96%/404,368), (11.83%/369,223), (11.99%/374,285) have the largest share of population of the city respectively. On the other hand, Akaki-Kality (6.91%/215,488) and Lideta (6.6%/206,306) Sub-cities have the smallest share of the city's population.



Source: CSA Projected population of Addis Ababa, (A.A BoFED, 2013).

The population density of Addis Ababa city in the year 2013 was 5,777.778 people per km sq. Thus it is one of the densest populated areas in the country. With regard to population density of the sub-cities, it varies from sub-cities to sub-cities .Hence, Addis Ketema sub-City was the densest (38,250.23people/km sq.) followed by Lideta and Arada 22,473.52, 21,951.43 respectively. And Akaki- Kality relatively was sparsely populated sub-city, which were 1,824.937 people /km sq.



Source: CSA, Projected population Of Addis Ababa, (A.A BoFED, 2013).

In addition to the national growth, Addis Ababa's growth rate increased by in-migrations from rural origins starting early in its existence and now the population has been growing dramatically. This high growth has been putting a tremendous pressure on both social and physical infrastructures such as housing problem, unemployment, inadequate public facility, poor sanitation, inadequate health facilities, urban slums and poor infrastructure facilities.

2.3.1. Rural-Urban Migration

Migration has direct effect on the geographic distribution of the population. The population of Addis Ababa is significantly affected by migration as it is the capital city of the country providing employment opportunities and public facilities, thus attracting migration from various parts of the country.

About 57 percent of the population of Addis Ababa is migrants. In Addis Ababa about 10 percent of the population is those who migrated in recently. Addis Ababa had the

highest all time net in-migration 430 per 1000 population and recent net in-migration 45 per 1000 population,

Table 3: In-migrants, Out-migrants and Net-migrants by region among all migrants and recent migrants, ICPS 2012

Region	Rate per 1000 current population of the city					
	All migrants			Recent migrants		
	In migrants	Out migrants	Net migrants	In migrants	Out migrants	Net migrants
Addis Ababa	452	22	430	96	51	45

Source CSA, ICPS 2012.

As official statistics shows, the capital continues to attract new residents every year. In general, it appears that much of this growth (probably up to 70 percent of the total), takes place in the slums and squatter settlements of the city. It is worth highlighting that the greater part of this growth is due more to net in-migration (1.69 percent per annum) than to natural increase (1.21 percent per annum) Addis Ababa features such a low rate of natural increase. This shows that migration has equally important role in determining the population size of Addis Ababa City. The fertility rate of the city is an average 1.9 children per woman, with crude birth and death rates of 27.6 and 6.7 per 1,000 respectively. Life expectancy remains at 62.8 and 66.5 years for males and females respectively (Un-Habitat, 2007).

Addis Ababa is not excessively large compared with other African capitals but it has nonetheless started to face congestion, low infrastructure utilization, relatively weak traffic management and inadequate public facilities. Addis Ababa attains the largest portion of the country's population and is a robust economic hub offering strong pull factors of better living standards than all other cities in the country. Like access to basic services, infrastructure and employment opportunities for citizens across the country. This has attracted Addis Ababa as the principal city to migrate. As a result, Addis

Ababa is constantly overburdened by the pressure coming from an exploding population growth and the difficulty associated with meeting the consequential rising demand for housing and other basic services.

2.4. URBANISATION AND IFRUTRUCTURE DEVELOPMENT

The role of infrastructure for economic development has been well documented in the various literatures. Infrastructure development, both economic and social, is one of the major determinants of economic growth, particularly in developing countries. Direct investment in infrastructure creates:

- Production facilities and stimulate economic activities,
- Reduce transaction costs and trade costs improving competitiveness and,
- Provide employment opportunities to the poor.

In contrast, lack of infrastructure creates bottlenecks for sustainable growth and poverty reductions (paravaker, et.al, 2010).

One of the social problems of developing cities and urban centers are lack of adequate and efficient infrastructure the delivery of services like water, sanitation, transportation and energy directly benefit households and can dramatically improve their welfare. Needs are increasingly well recognized in many developing countries but key infrastructure services are still in serious short supply and of poor quality. Although these problems are most severe in low-income countries, they remain sizable in most middle income countries. Moreover, coverage is typically much lower in rural areas, where most poor people live particularly in developing countries. But urban coverage is also under pressure, partly because of rapid rural-urban migration in many countries. Similar situation have been observed in Addis Ababa (A.A BoFED, 2013).

2.4.1. HOUSING

Housing is one of the most important basic services, which affects the life of most of the population of the city. Because of rural-urban migration and natural increase there is an alarming population increase in the urban areas. This causes shortage of social utilities including housing in the urban centers. Likewise, housing is the major problems of Addis Ababa. According to the 2008 welfare Monitoring Survey of CSA, the available stock of houses can only sufficiently accommodate about 73% of the households and the remaining 27% are homeless people. Therefore, housing is one of the critical problems of the city. However, most houses of the city are old and below standard, unplanned and inconvenient for living. According to the study out of the total 387,000 houses in the city, about 238,000 of them or 61.5% were residential. Which means only 53% of them was used for living. According to this study 150,000 of houses were under government tenure, 76% were older and without any maintenances. Furthermore, 31% of the houses were with single room, 25% without toilet and 27% without kitchen. Generally 75% of the houses were made of mud and wood (A.A BoFED, 2013).

The integrated housing development program aims at developing the saving culture of the society: creating job opportunity, providing houses for those middle and lower income sections of the society and changing the image of the city. Furthermore, it enables ensuring equitable wealth share of the residents. As indicated in the report of office of the Mayor of 2013, the performance of housing development and transferring to the dwellers in the past five years shows, 45,024 houses were built up to the end of 2009. In 2013 a total of 20,355 houses were transferred to the dwellers. Currently over 95 thousand of houses are under construction (A.A BoFED, 2013).

(Dubbale et.al, 2010) wrote, the construction of public housing has shown still a promising start after the restructuring of the city administration, at the initial the government has plan to construct 250, 000, condominium houses with in five years period but it is constructed including under construction houses, 203, 482, houses within ten years period this shows that the accumulated deficiency has made far out of sight. In 1994 the number of housing units was 374,742, which is 9.5% less than the total number of households. After 10 years the difference increased to 24.8%, though the total housing stock rose to 471,429.

2.4.2. ROADS

Safe and comfortable road is an essential infrastructure that lay basis for the development of other social and economic sectors. One of the key and prior tasks is filling development gaps by constructing standardized and quality roads to meet the growing development needs of city dwellers. In the past five years different types of roads have been built by city administration, residents and other development stakeholders. Over 530 pedestrian sidewalks have been constructed. Over 22 km asphalt road maintenance carried out. And 108 km drainage line have been constructed and become operational in 2012. In the same way 41.5 km asphalt road, 53.74km gravel road, 550.15km coble stone road were constructed in2013. Furthermore , the maintenance of 13.82 km asphalt road ,51.63 km gravel road, expansion of 2.05 km drainage line, clearing of 121km drainage line , maintenance of 13.9 km drainage line and construction of 9 bridges took place in the same year (A.A BoFED, 2013).

According to AACRA annual report of 2013, over 3841.5km of roads have been constructed and become functional in the city in the past years. In addition, as AACRA report indicated, in the same fiscal year the city had a total of 1,848.5 km asphalt road, 1,830.74 km gravel and 827.15 km cobble stone each with seven meter width. The road network coverage rose from 9.8% (2009) to 15.6 % (2013).

However, Traffic congestion and hazardous driving conditions on the account of the extremely poor condition of roads make driving in Addis a difficult task. Large segments of the city area have evolved without basic urban planning. Streets are narrow, winding and lack basic drainage structure and pedestrian ways (Dubbale et.al, 2010).

Due to lack of regular maintenance, most asphalted roads quickly develop many pot holes. There is no sufficient parking space and drivers park their cars on sidewalks causing terrible traffic chaos and repeated accidents. The relative rise in automobile ownership together with the poor condition of the roads and the poorly functioning traffic system have resulted in high level of congestion particularly at peak hours. Even though the city administration issued road and traffic safety regulation, the practicality of those management tools is virtually non-existence (Dubbale et.al, 2010).

2.4.3. Public Transport Services

Transport service is a vital economic sector that helps for swift movement of people and goods from one location to another. Taxis, mid buses and public buses dominate public transport in Addis Ababa. In Addis Ababa like other developing urban centers there is an inefficient and shortage of public transport services.

Condition of public transport and infrastructure in Addis Ababa city is regarded as one of the poorest in the world. As cited by (Dubbale et.al, 2010), There is no rail way transit service in the capital (it is now under construction) and thus public transport in Addis Ababa only refers to bus and taxi services. Car ownership among residents is very low, unlike other cities in the country; bicycle use is insignificant due to the hilly terrain. Public transport in Addis Ababa is carried by a mixture of ownership structures, of which public and private operators are predominantly contenders for business. The modes of transport include public bus; minibus; taxis, midi Bus (Higer) and the non-motorized transport such as walking and animal transport in the periphery. Currently, taxis, city buses and private cars altogether account 30 percent of the modal share of which is 26 percent bus, 70 percent taxis and 4 percent private cars and seventy percent of the urban travel made on foot (AACTA, 2008).

2.4.4. Water Resource and Supply

Since water is the basic necessity, the sufficiency and quality of its supply directly affects the wellbeing of the society living in that particular city. Safe collection and treatment of waste water is almost equally important as the supply part, since inappropriate handling of waste water and sewerage create disease prone living environment (A.A BoFED, 2013).

Water access and adequacy is one the conditions that makes an urban centre comfortable place to live in. Potable water is one of the favorable conditions of urban centers that attract people to live in. In this regard, in meeting water needs of the growing population. Accordingly, Provision of water to meet the ever growing needs of residents, from underground (70,152,807 m^3) and surface water sources (42,062,760 m^3).

Regarding water coverage, it had risen from 52% in 2008 to73% in the 2011 and made considerable performance in the year 2012 and reached 94%. The amount of water production per day also shows a significance improvement from 232,000 m^3 in 2008 to 374,000 m^3 in 2012.

Poor maintenance and lack of new facilities combined with rapid population growth has been causing water shortages in many areas of Addis Ababa. This shortage particularly affects the low income section of the city dwellers. The majority of slum dwellings have no easy access to water supply. These residents get water from public taps, which are frequently interrupted. High volumes of wastage due to faulty piping also contribute to the shortage of water (Un-Habitat, 2008).

2.4.5. Solid Waste Management

Addis Ababa as being the centre of political and economy of the country, there is a high rate of population agglomeration accompanied by rural–urban migration resulted in the generation of huge amount of solid waste. If not properly managed, it would become a source of health and other related problems. According to City administration BSC study team assumption, (February 30, 2010) of the total solid waste generated 76% from residential, 9% from commercial areas, 6% from street sweeping, 5% from industries, 3% from hotels and 1% was from hospitals.

The Per Capita solid waste generation rate is 0.45 kg/capita/day and as a total 1,020,000 kg/ capital or 3,063.06 m^3 with density of waste per year and 330 kg/m^3 per day. There is a 5% rise of urban waste generation per year, (A.A BoFED, 2013).

The proportions of housing units disposing solid waste through vehicle or a container is 65 percent, and 35 percent of the solid waste generated by the city is never collected, and instead is dumped into rivers, ditches, roadsides, and other open spaces. It is a common sight to find children playing and scavenging in these areas, adding an immediate and community health risk to the problem. Also, what is being collected is not being recycled, as there is no sanitary landfill site. All the collected wastes are dumped on open fields, creating another source of soil, water and air pollution. The absence of a disposal system for hazardous and medical wastes ensures that this too is being mixed with the remaining waste. This mix continues to be a hazard for informal recyclers, who make a livelihood of collecting re-usable waste, such as discarded objects, plastic, metal, etc.(Un-Habitat, 2008).

Having understood the existing situation and concentration of population in Addis Ababa, the unprecedented increase in the demand for infrastructure facilities and amenities, thus that led to problems of land shortage, housing shortfall, inadequate transportation and urban horizontal expansion etc. Management of essential infrastructure like water supply, sewerage, drainage, solid waste disposal has become more challenging. These led to concentration of economic activities and population in Addis Ababa and put tremendous strain on the delivery of services. Hence, there has been growing realization that there is a need for decentralization of activities so as to reduce the burden of Addis Ababa.

2.5. Satellite cities and Decentralization

It is accepted as a principle that when the population of the city, with all its urban requirements has reached a certain size, it is wise to call a halt to continuous spread.

The alternative is a policy of decentralization to selected sites conveniently placed. This is the satellite form of development. If this principle is adopted it will be evident that the amount of decentralization is dependent upon the adoption of certain standards of living conditions and proper functioning. This will help for healthy growth, prevention of further congestion and the reduction of overcrowding (Abercrombie, 1956).

One great advantage of the satellite method is that it allows for flexibility in growth as well as for development in stages. Each satellite can be planned as a town, allowing for the most economic provision of services. The construction of a number of satellite towns provides an opportunity for development with standards of open space, public and communal buildings, shopping facilities, net densities and street layouts more nearly approaching the ideal than is generally possible when an existing town is re-planned(Abercrombie, 1956).

With the rapid increase in population living in urban settlements around the world, the principles of decentralisation of population and decongestion of cities are now followed universally (Acharya, 2012). However, the decentralisation of responsibility to the local level an imperfect and uneven process at best is often not matched by the allocation of resources or authority. As the numbers of urban poor grow inequalities in opportunity and income deepens nearly three-quarters of Africa's urban residents reside in slums, often unrecognized and un-serviced by their local government (Cities Alliance, 2006).

Regional and local development and planning have distinct goals and objectives. The goals of regional and local development are: (a) achieving regional and local economic growth; (b) redressing development inequities between regions and achieving spatial equity; and (c) promoting civil or political stability through increased participation of

the local community in development. These goals require strategies and policies which in turn have to be informed by theoretical insights (Tegegne, 1998).

Theories of regional development have been dominated by the development from-above approach and have emphasized spatial decentralization in order to diffuse development throughout the country. As cited by (Tegegne, 1998). For example the growth center strategy has focused on expanding industry in a small number of propulsive centers away from the metropolis. These centers are expected to diffuse development to the surrounding rural areas through their spread effect. The strategy of spatial decentralization has focused on strengthening and developing small and intermediate urban centers throughout the country. This strategy is assumed to have a number of contributions to spatial equity and national development. The suggested contributions include (Simon, 1990):

- Improved access to services by residents and those of surrounding rural areas;
- Better provision of shelter and physical infrastructure to improve mobility and access to markets;
- Promotion of agricultural diversification and the production of surpluses;
- Stimulation of small-scale and labor-intensive industry;
- Better utilization of local resources; and
- Retention of population which would otherwise migrate to large centers.

Decentralization in Ethiopia involves a high degree of political decentralization or devolution. The nine regional governments are 'relatively autonomous' governments in that they are elected bodies and have the power to make legislation and policy decisions regarding many activities. According to the constitution of the Ethiopian

Federal Republic, the activities within the powers of the regional governments include: (Tegegne, 1998).

- Establishing regional administration on the basis of self-determination and establishing a democratic system;
- Formulating and executing the regional constitution;
- Formulating and executing the economic and social development policies and strategies;
- Administering land and natural resources on the basis of the federal law;
- Determining taxes and collecting revenue from regional sources;
- Formulating and executing laws concerning civil servants administration and work conditions in the region; and
- Maintaining peace and order in the region and establishing regional police forces.

Meanwhile, Cities expanded in rapid rates to absorb the rapidly population growth and to provide sites for industrial development in the major cities, satellite towns were planned and developed around their urban cores (Yeh and Yuan, 1986).

The modern concept of urban planning began to evolve in Britain during the second half of the nineteenth century. As (Acharya, 2012), the origin of the Satellite city concept associated with the UK new towns act of 1946 (Merlin, 1980). The core part of this theory is by building satellite cities near the metropolitan area, a part of migrants can be attracted and therefore population growth is controlled in the central area; or some urban function, especially the industrial function, is decentralized into the newly-built area (Pan, 1957). Sir Patrick Abercrombie's, who was appointed to design a regional plan for Greater London, proposed to develop new towns in a ring around London at a distance of twenty to thirty miles from central London (Merlin, 1980). Sir Patrick

Abercrombie's plan had great similarity to Ebenezer Howard concept of garden cities (Acharya, 2012). The idea of Garden City was a great enlightenment and had profound edificatory effect on urban planning and urban development afterwards. It became the foundation of satellite towns and new towns. The concept of "Satellite Cities" was introduced by Graham Romeyn Taylor in 1915 (Mengyi, 2011).

Thus, Satellite cities are cities in which all aspects of development are determined before construction begins and have the following features: (Pan, 1957).

- Satellite city is a large development that has a comprehensive and mixed-use design conforming to a single master plan that seeks to produce a range of valuable social, environmental, and economic benefits.
- The satellite cities, new settlements that would bring together the best features of town and country while avoiding the disadvantages of social, environmental and economic benefits of the livelihood.
- Satellite towns are previously planned and it is determinate where it is going to be infrastructures, economic activity (industry and commerce) and social services (education, health and leisure).
- The satellite towns requires community infrastructure ranging from parks, schools, museums, hospitals, libraries, and police and fire stations to water and sewage systems and citizens have the opportunity to participate in city governance and influence on political decisions during city creation.

Many countries like china, India, Turkey, Nigeria and in east African countries have started developing satellite towns. The development of satellite towns in China were

started in 1950s when suburban area was chosen as the sites for nationalized industries and they were mainly industrial towns (Yeh and Yuan, 1986).

The inclusion of rural countries in the administrative boundaries of municipalities is mainly to supply vegetables and agricultural products to the urban population living in the central cities and suburban districts. Industrial districts are mainly found in the suburban districts close to the central city. In contrast, satellite towns are mainly located in the capitals or townships of rural countries in the municipality, farther away from the central city than the industrial districts. For satellite towns that are located in capital of rural countries, they play a dual role in the municipality, serving both as satellite towns of the central city and capitals of the rural countries.

Similar to satellite town development in other countries, satellite towns in china has designed to decentralize population and industries from the large cities (Yeh and Yuan, 1986).

They were developed around the large metropolises and designed to recipients for urban residents and industries transferred from the central cities. On the other hand, satellite towns were developed around the central city of large cities to release their population and development pressure. Thus, the development of satellite towns can be considered as an important spatial recognition strategy in the large cities that aimed to alleviate their urban problems which mainly occurred, and were not visible in their central cities (Yeh and Yuan, 1986).

To avoid satellite towns from being absorbed by the rapid expansion of the built-up areas of the central city and its suburban, the planners of shanghai considered the optimal distance between the satellite town and the central city to be within a range of 10 to 50 km. the location of satellite towns should have convenient water rail transport and have good potential for a road network to link with the central city. The optimal

size of the satellite town should range from 50,000 to 200,000. This was considered to require less capital investment in housing, urban infrastructure and public utilities. The development of satellite towns would be mainly industrial led, with the population dependent on the needs of industries located there. Because of the concern over production and employment, the type of industries to be located in the satellite towns was seriously considered. This was not only the question of industrial locations but also the nature and development directions of the satellite towns. Six types of industries were considered to be suitable for locating in the satellite towns: (Yeh and Yuan, 1986).

1) Specialized large industries complexes that require large amounts of land such as iron and steel complexes and petrochemical factories;
2) Polluting industries;
3) Industries that need special environment;
4) Industries whose raw materials and products are linked with places outside the city region;
5) Industries that can utilize local resources and labor with little linkages with industries in the central city, and
6) Industries that can utilize existing infrastructure and public amenities of the satellite town.

2.5.1. Satellite Cities in Eastern Africa

East Africa hasn't urbanized at the same rate as the rest of the world. While over 50 percent of the world's population now lives in cities, the East African region of Tanzania, Kenya, Uganda, Rwanda and Burundi the members of the regional intergovernmental organization East African Community will only reach an urban population of 31 percent by 2030 (Falk, 2012).

But while the countries as a whole aren't following the urbanization trend at the same pace as other places, some of their biggest cities are among the fastest growing in the world. Of the projected top 20 fastest growing cities in the world from 2010 to 2025, five of them are located in East Africa (Falk, 2012).

Kampala, Uganda is expected to grow by 99.5 percent, followed by Dares Salaam, Tanzania (85.2 percent), Kigali, Rwanda (79.9 percent), Mombasa, Kenya (79 percent), and Nairobi, Kenya (77.3 percent). To deal with the strain of urban population booms some of these cities are turning to satellite cities as part of their solution, according to a report, State of East Africa Report 2012, from the Society of International Development (Falk, 2012).

Satellite cities have been constructed or proposed in these East African countries: Outside Nairobi, Tatu City and Konza Technology City, Kigamboni adjacent to Dares Salaam, Kakungulu in Kampala (Falk, 2012).

These satellite cities hope to tackle two different aspects: accommodating urbanization and creating modern cities to complement development. They also seek to embrace their respective countries' advantages. For instance, Konza City in Nairobi, Kenya is a multi-billion dollar ICT city park. The Kenyan Permanent Secretary in the Ministry of Information and Communication expects Konza City to be Africa’s home of computerization, the equivalent of Silicon Valley in California, complete with skyscrapers, business centers, international schools and hospitals. It is no secret that Nairobi aspires to be the technology hub of East Africa (Falk, 2012).

Another reason why there is such a focus is explained by the Government of Tanzania which claims that satellite cities would hope to bring urban services closer to residents

and consequently decongest the city center. This strategy implies that the only way to improve city conditions would be to have less people traffic. Perhaps only then can authorities focus on developing the original cities (Falk, 2012).

The Greater Horn East Eastern Africa (GHEA) Outlook highlights the region's new satellite cities in Kenya, Uganda, Tanzania and DR Congo.

2.5.1.1. Tatu City (Nairobi, Kenya)

Figure 4: Tatu City (Nairobi, Kenya)

Source: **http://www.tatucity.com/**

Tatu City in Kenya is a brand new city that will complement, not replace Nairobi and it looks new and different form other projects (every toilet in Tatu City will flush with recycled water. Every roof should harvest rainwater).The site of the proposed development is covers 1,000 hectares (2, 400 acres) in size. Part of the land to be developed is currently a productive coffee farm and coffee production will continue on

a further 4,000 ha during the development of Tatu City. The site is situated directly in the path of a continuously growing urban development extending northwards from Nairobi (GHEA Outlook, 2010).

The development will result in the creation of a new decentralized urban centre to the north of Nairobi in line with the Nairobi authority's planned creation of decentralized development areas to alleviate the congestion with in Nairobi. Tatu City will be home to an estimated 62,000 residents who will have the opportunity to live, work and play within their community and is also expected to attract around 23,000 day visitors. Tatu will create 3,000 houses a year in a country that has an annual housing shortage of 35,000 to 40,000 per year (GHEA Outlook, 2010).

The proposals fit the requirements outlined by the government. "Aligned with the vision and purpose of the Nairobi Metro 2030 Strategy – which is part of the overall national development agenda for Kenya –Tatu City is a model of the African city of the future and a place where everyone will undoubtedly desire to live, work and play"(ibid).

2.5.1.2. Konza Technology City (Machakos, Kenya)

Figure 5: Konza Technology City (Machakos, Kenya)

Source:**http://www.itnewsafrica.com/2011/08/kenya-set-on-multi-billion-konza-city/**

The Konza Technology City phase one of the project will be the construction of a science park, business process outsourcing centre, international finance centre, tourism facilities and a research centre. In phase two, it is anticipated that the development will create 39,000 jobs nationally, with half of those direct jobs to be found within Konza Technology Park (GHEA Outlook, 2010).

2.5.1.3. Kakungulu Satellite City (Kampala, Uganda)

The Kakungulu Satellite City is located on the Kampala-Entebbe highway, 18 kilometres from Kampala. It is built of a new 50,000-seater stadium, 2,500 houses and apartments, a business centre, schools, hospitals, hotels and shopping malls (GHEA Outlook, 2010).

2.5.1.4. Kigamboni Satellite City (Dares Salaam, Tanzania)

The government is considering constructing a new urban expansion area in the Kigamboni region of Dares Salaam. Negotiations are taking place between the government, residents and the Temeke Municipality. Temeke is included in the equation due to the fact that a minimal number of households that will be displaced will be relocated in Temeke (GHEA Outlook, 2010).

In keeping with Action Plan's vision, the Kigamboni project aims to create planned and serviced housing and shelter to the people of Dares Salaam (GHEA Outlook, 2010).

With Regards to housing and shelter, the Action Plan intends to augment housing delivery within local authorities, increasing the supply and improving the quality of

rental housing and ensuring that there are widespread readily available and affordable housing finance facilities (GHEA Outlook, 2010).

2.5.1.5. The Six Satellite Cities Project in Tanzania

The Government of Tanzania is establishing six satellite towns at the periphery of Dares Salaam. This project carried out by the Ministry of Lands, has the following main objectives:

1. Reduce the growth of existing unplanned settlements and prevent the formation of new ones
2. Stimulate planned land development
3. Bring urban services closer to residents thus decongesting the city centre the proposed centres are MjiMwema, Kimbiji and Kongowe in the Temeke Municipality (South of DaresSalaam; PuguKajiungeni in the Ilala Municipality (west of Dar es Salaam), and Bunju and Luguruni in the Kinondoni Municipality (north of the city) (GHEA Outlook, 2010).

The planned activities are: sensitization of property owners to facilitate land acquisition; planning and surveying of the area; valuation and compensation; relocation of existing settlers; sale of plots by tender to prospective developers; and allocation of offers for the right of occupancy and title deeds. In the Kwembe area, the Project has already been implemented through development of plans and payment of compensation to owners whose structures have to be demolished (GHEA Outlook, 2010).

2.5.1.6. La Cite Du Fleuve, River City (Kinshasa, DR Congo)

Figure 6: La Cite Du Fleuve, River City (Kinshasa, DR Congo)

Source: Greater Horn of Eastern Africa (GHEA) Outlook # 18

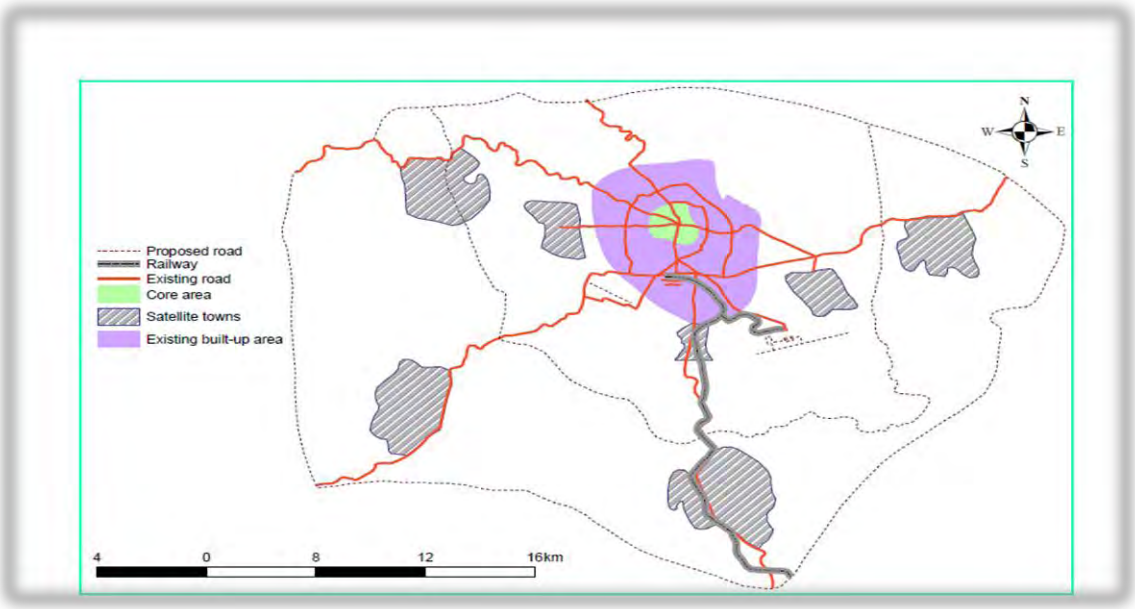
There is no doubt that La Cite du Fleuve (River City) is an innovative project. Arguably Africa's most ambitious construction project, the city is to be built on two islands on the River Congo. Dubbed "the new Manhattan" La Cite du Fleuve is expected to house thousands of flats, villas, offices, hotels and shopping centers. La Cite du Fleuve will provide a standard of living unparalleled in Kinshasa and will be a model for the rest of Africa. La Cite du Fleuve will showcase the new era of African economic development (GHEA Outlook, 2010).

2.6. British Town Planning Practice and satellite towns in Addis Ababa

After the liberation, Addis Ababa entered another era when the planning tradition shifted to British town planning practice (Yirgalem, 2007). Based on the

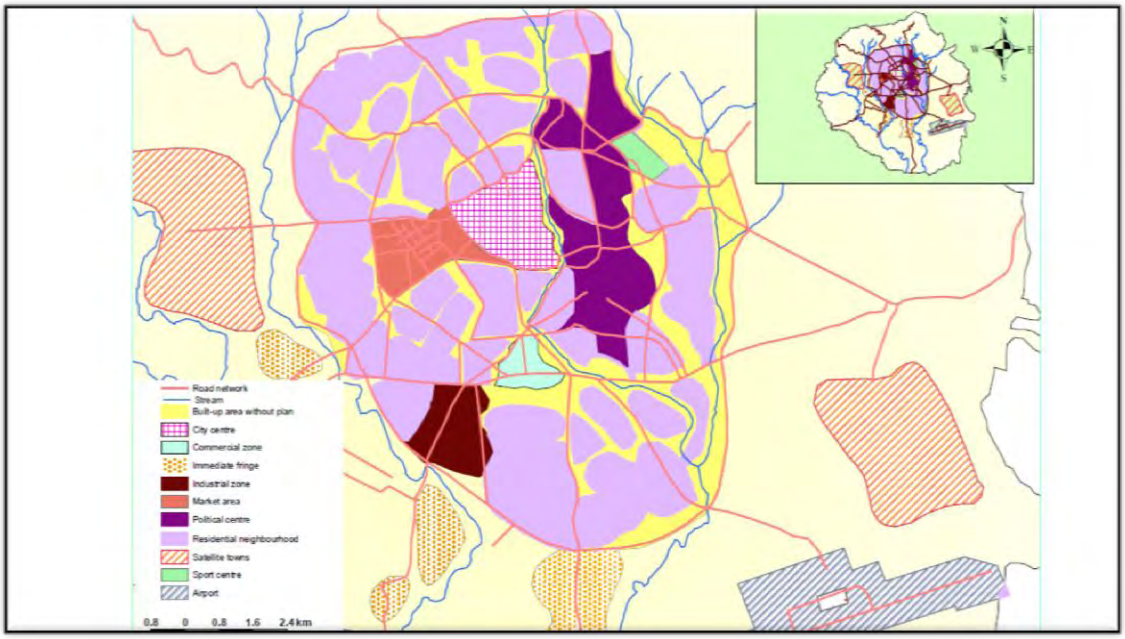
recommendations of Sir Patrick Abercrombie, a sketch plan was prepared to guide the development of the city during the early post-war period (Pankhurst 1957). Sir Patrick Abercrombie's proposal was a park system plan, which suggested the use of existing river valleys as a green belt surrounding the city. The land use zones were organized as an industrial zone, residential zone, government office zone, and a cultural activities zone. The residential zone was proposed to house a population of 460,000 in neighbourhood units with adequate socio-economic services. Abercrombie also considered the creation of satellite towns to accommodate populations exceeding the maximum limit, and proposed six satellite towns (Yirgalem, 2007).

Fig 7, proposed Satellite towns by Abercrombie



Another British planner, Bolton Hennessy, was assigned to revise Sir Patrick Abercrombie's plan. The revision was mainly intended to elaborate the former plan for a greater population size (Yirgalem, 2007).

Fig 8, the growth of Addis Ababa According to Abercrombie's Revised Master Plan



CHAPTER THREE

Data Sources and Collection Procedures

3.1. Research Methodology

This paper predominately a descriptive research using qualitative data and tries to discuss the concept in two ways: general literature review and case discussion. In the light of the limited published data available on satellite city, this paper is predominantly dependent on qualitative rather than quantifiable data. Accordingly, the researcher comprehensively reviewed and analyzed various literatures from books, journal articles, brochures and working papers, reports proceedings to build the conceptual foundation for the qualitative research and expand the knowledge base.

3.1.1. Source of Data

Considering data source approach the paper relies on both primary and secondary data source that deals on satellite city concept, relevance, applications and related issues to obtain the necessary information for urban development the case of Addis Ababa and the surrounding towns.

3.1.1.1. Primary data sources

Primary data obtained from key informant interviews, questionnaires and assessment of the researcher is used to explain issues related to positive prospects of satellite city for socio-economic and urban development.

3.1.1.2. Secondary data sources

Secondary data were collected from annual report, documents, journals, different books and research papers on various relevant urban issues is reviewed. Most data and figures are from United Nations center for Human settlements (UN-HABITAT), and United Nation Population Division (UNPD) and branch offices that deal with population, urban and environment related issues. The website is also a prominent source of materials used in this research.

Additional facts and figures are taken from country fact and regional and national statistics offices. It should be noted that the availability of data that is accurate and up-to-date is in short supply in developing countries.

3.1.2. Methods of Data Collection

In order to assess the impacts and prospects of satellite city on urban development, the researcher collects information from primary and secondary data sources. Primarily data were collect through the combination of structured interviews and questionnaires. Secondary data were collect from government reports and publication, books, articles, and reports of related institutions.

Survey questionnaires prepared to acquire data on socio-economic, demographic dynamics and impacts of satellite city development. Therefore, survey questionnaire is administered through a face to face interview type in most of respondents for Ministry of urban development and construction among the five tiers of urban planning, sanitation beautification Bureau. The three Department Research and study, Training and development department, urban plan evaluation implementation, monitoring and feedback department and in addition to that bureau of finance and economics (BoFED) department of policy study and population affairs core process. Both open and close

ended question is adopted in the questionnaires to capture more information on research gap.

Key informant interview is also carried out with those individual who have wider concept and idea on the issue. Key individuals from Addis Ababa and the surrounding Oromia integrated development plan project office, (BoFED) department of policy study and population affairs core process head and to urban plan evaluation implementation, monitoring and feedback department head.

To obtain relevant and sufficient information and to administer key informants around the issue, a guideline is prepared. The guideline prepared includes issues like challenges, opportunities and socio economic importance derived from urban development.

3.1.3. Sampling Method

Survey questionnaires are selected on purposive sampling method to Ministry of urban development and construction among the five tiers of urban planning, sanitation beautification Bureau the three department Research and study, Training and development department and urban plan evaluation implementation monitoring and feedback department in addition to that bureau of finance and economics (BoFED) Policy study and population affairs core process department selected as the major respondents for the application of satellite city development.

Table 4: Sample size of respondents

NO	Respondents	Sample Size	Total
1	Urban Research and study department	10	40
2	Urban Training and development department	10	
3	Urban plan evaluation implementation, monitoring and feedback	10	
4	(BoFED)- Policy study and population affairs core process dep.	10	

Accordingly, the researcher has made intensive and in-depth interview with the city administration office of Addis Ababa and the surrounding Oromia integrated development plan project office head, (BoFED) policy study and population affairs core process leader and ministry of urban development and construction department of urban plan and evaluation office head selected as the major respondents for the application of satellite city development.

3.1.4. Data Analysis

During data analysis and interpretation, primary and secondary data were combined in explaining, confirming, refuting and enriching data from one approach to another. Hence, primary data obtained from Survey questionnaires, informant interviews and assessment of the researcher were used to explain issues related to the positive prospects of satellite city development.

Moreover, secondary data obtained from various data sources were organized and analyzed to compliment the survey results. This includes statistical reports of the central statistical authority, Ministry work and urban office, A.A city municipality office, Ministry of culture and tourism, Oromia Urban Planning institute and other relevant secondary data sources.

CHAPTER FOUR

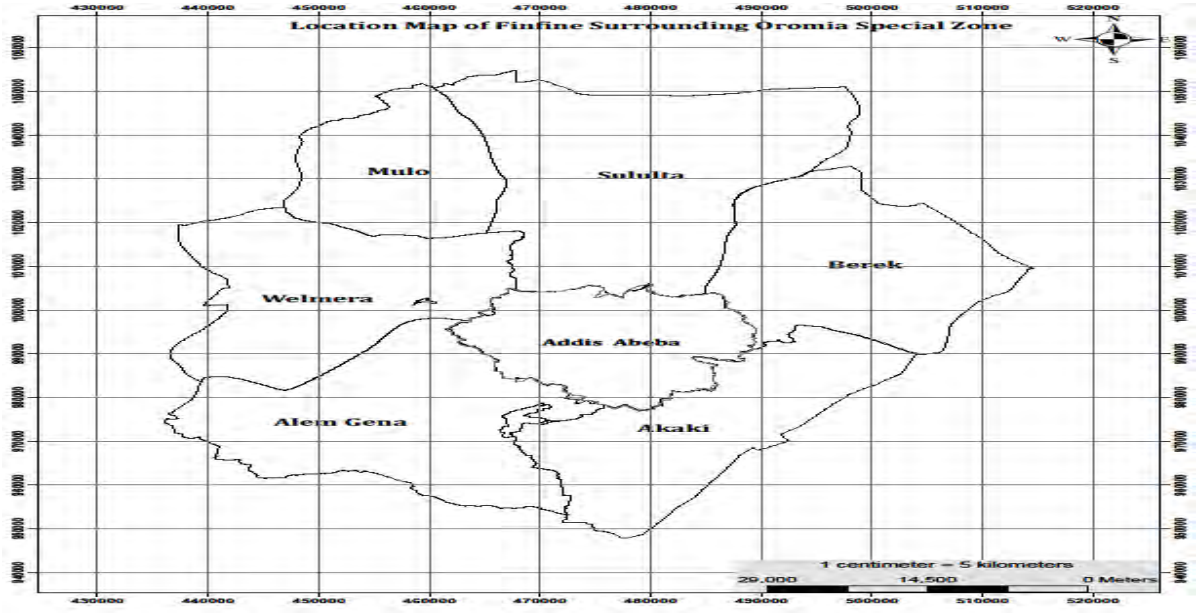
Results and Discussion

This chapter deals with analyzing and presenting the fact collected by questionnaire and interview concerning the importance of satellite city. In addition to that, secondary data also analyzed and presented. The analysis of the study tallied and structured so as to make it manageable for presentation and analysis. To facilitate ease in conducting the empirical analysis, the results of the survey with its detail interpretation and discussion is presented. Therefore, this section of the study contains facts and information about the importance of satellite city for urban and socio economic development the case of Addis Ababa and its surrounding towns.

This study provides specific attention to urban area to introduce the satellite city concept for major towns in the surrounding towns of Addis Ababa and the study highlight the general profile of surrounding towns and also incorporate the brief study of selected six towns based on accessibility/proximity to key infrastructure which has capacity for further growth and in a way to reduce the burden of Addis Ababa city.

The Surrounding of Addis Ababa, consisting of six core sites (six administrative *Weredas*) Akaki, Berek, Mulo, Alemgena, Wolmera, and Sululta, with a total area about 375, 976 hectares and eight major towns (Burayu, Dukam, Gelan, Holata, Laga Xaafoo – Laga Daadhi, Sebeta, Sendafa – Beke, and Sululta) (FSSEZOLUPS, 2011).

Figure 9: Location Map of Addis Ababa and Surrounding Towns



With regard to demographic characteristics, the 2007 census result reveals that the total population size is 702,539; whereby 171,114 live in eight major urban centers. The following table give the exact figure of inhabitants in each major towns based on the 2007 census result.

Table 5: Population Distribution of Towns and Districts Surrounding of Addis Ababa

Name of Town and District	**Town**	**Population**		**Total**
		Urban	**Rural**	
Akaki District	Dukam and Gelan	6,669	71,160	**77,829**
Burayu Town	Burayu	48,864	15,009	**63,873**
Berek District	-	-	81,205	**81,205**
Mulo District	Chancho	2,295	32,835	**35,130**
Laga Taafoo /Laga Daadhi and Sendafa Town	Laga Taafoo / Laga Daadhi and Sendafa Town	10,750	-	**10,750**
Sebeta District	Sebeta	62,704	127,173	**189,877**
Sululta District	Sululta	12,452	116,870	**129,322**
Welmera	Holata	27,380	87,227	**114,607**
TOTAL	**Surrounding Towns**	**171,114**	**531,479**	**702,539**

Source: (CSA, 2008).

5.1. Responses of satellite city approach

As of the survey responses, most of respondents are explaining the satellite city approach and concept in number of ways according to respondents' from policy analysis and study office and department of urban plan and evaluation office satellite city has an important advantage in terms of development and thinking about the future. It is an innovative concept and would have a significant impact in the surrounding towns as well as for Addis Ababa and it has also capable to respond the socio-economic problems seen in Addis Ababa as well as in the surrounding towns and provide opportunities to citizens accordingly:

- It boots up the local economy as well as decision making of the local government and balance the regional growth including satisfactory provision of infrastructure and basic services (education, health, water and sanitation); and adequate revenue generates to local government and the surrounding rural areas.

- It enhances the national economy there by developing social, political and economic systems capable of responding to environmental and demographic changes and it reducing the residential pressure, slowing down population growth in Addis Ababa.

In addition to that, as of respondents the surrounding towns have a potential in amount of resource and land capacity to be satellite towns. Furthermore, as of informants policy analysis and study office head stated that the satellite city approaches indeed important economic forces not just for Ethiopia but to the entire Africa. When they are well-articulated with the national and provincial governments, these towns can yield critically important results for the nation as a whole.

5.2. Proposed Satellite Cities

According to (Yeh and Yuan, 1986) stated in the literature, one of the factors to be a satellite city it has to be around the large metropolises and designed to recipients urban residents and industries transferred from the central cities. Therefore, Gelan, Dukem, Suluta, Burayu, Holeta, Sebeta on the loop around in Addis Ababa has a potential to be a satellite towns and one which serves a significant regional function for northern, southern, eastern and western part of Addis Ababa. It has a level of importance for Addis Ababa and the country as well. These towns have important land holdings and resources in the areas and can achieve the required outcome with an appropriately developed Master Plan. The current town strategy has to be reviewed, modified and updated to meet the satellite city objectives relevant to the new super city structure.

Table 6, Population Distribution and geographical location of surrounding towns of Addis Ababa

Surrounding Towns	Area/coverage	Population		Total	Geographical location
		Urban	Rural		
Gelan	7,516ha Land	6,669	71,160	77,829	31kms south-west of A.A
Dukam	3,796ha land				37kms, South-east of A.A
Sebeta	9,645 ha land	62,704	127,173	189,877	24kms west of A.A
Burayu	6,789 ha land	48,864	15,009	63,873	15kms western fringe of A.A
Holeta	5,589.8ha land	27,380	87,227	114,607	40kms North-West side of A.A
Sululta	4,461.1ha land	12,452	116,870	129,322	23km Northern part of A.A
Total		158,069	417,439	575,508	

Source, (CSA, 2008)

Gelan has a level of importance for satellite town and one which serves a significant regional function for the south-west part of Addis Ababa. According to (FSSEZOLUPS, 2011), currently in Gelan the plan shows industrial area dominantly develops. As far as the proposed satellite city is concerned, there will be several industrial areas and

residential centers. In the residential areas, there will be a whole set of cultural establishments and welfare centers. The satellite towns will be the economic, social and cultural hubs at which all facilities will be contained. According to informants, Gelan has important land holdings in this area and opportunity for significant further residential development to create a truly mixed use and urban facilities by adopting a compact urban shape with appropriately developed Master plan to achieve efficient and standard urban form. To this end, it should review the Gelan plan based on "satellite towns" strategy be adopted and implemented modern urban form. And these redevelopment areas will significantly add to new Gelan.

According to (FSSEZOLUPS, 2011), the land use features are observed in the existing land use of Dukam, that is manufacturing, storage and mixed development are the common ones. satellite city in other hand mainly industrial led all sort development light and complex industrial as well as manufacturing, ranging from small to big ones in particular areas of the towns.

As to informants Dukem has a potential for satellite town development and supported as a priority for urban development as it is well articulated and planed with appropriately developed Master plan. It will serve and meet medium/high value employment and population needs. These areas will transform the locality and it will significantly benefit from a mixed-use residential development in addition to the industry and manufacturing and it has important land holding and opportunities for efficient and standard urban form.

Sebeta looks a direct extension of Addis Ababa, it shows the character of satellite and self-sufficient town is supported as a priority for development currently the town has a

compact urban form and it has important land holding and resources (FSSEZOLUPS, 2011).

As of informants from department of urban plan and evaluation office and policy analysis and study office head that, Sebeta town is one of the economic growth node it would have a modern urban linking with Addis Ababa and the surroundings of local urban-rural areas to generate employment, economic development and modern urban facility standard.

Burayu the area adjacent to Addis Ababa is well developed. As the trend indicates that, more than 75percent of the town is still green. The land capability shows a significant proportion of service development which is an indication of local urban economic development (FSSEZOLUPS, 2011). According to informants from department of urban plan and evaluation office and policy analysis and study office head that, if it is articulated with appropriately developed Master plan burayu has a level of importance as a satellite town and able to play a role in the ongoing development of the region and to the nation as a whole.

As of informants from department of urban plan and evaluation office and policy analysis and study office head that, Holeta and Sululta has also potential towns in terms land holding and both towns have a green area in many part of place accordingly if this towns plan appropriately with modern urban mixed facilities this towns will play a great role in the economic, social and cultural development of the region and to the nation as a whole.

5.3. Inter-relation of the surrounding towns with Addis Ababa

- Location, proximity & land use network of urban center in relation to Addis Ababa;
- Topography/settlement structure of the urban center and its surrounding;
- Availability water resource area;
- Proximity to agricultural productive area;
- Already established development;

The location of these towns with Addis Ababa and Proximity to agricultural productive area these towns have appropriate location to boosts, diversify and channelize the economic activities. These towns are center for Addis Ababa and the surrounding rural and urban areas they play a dual role by serving both as satellite towns of Addis Ababa and capitals of the rural countries. These towns and their rural areas towns are rich in different agricultural products cereals, vegetable and other products though the urban centers have potential to be hub for agro based establishment and engine of economic development. On the other hand, Topography of these towns is another factor that contributes for the development satellite city in each town. Suitable urban land in terms of slope makes area preferable for satellite town's development. Especially big investment needs large flat land. These towns are attracts due to their vast flat land and water resource (FSSEZOLUPS, 2011).

The surrounding towns have also tremendous water resources, both surface and ground water. From these resources potentials, only few have been developed. Some to mention from the surface water are dams of Legadadi, Gefersa and Dire for Addis Ababa water supply and Aba Samuel Dam for Hydroelectric power. Besides, river Awash and its tributaries are used for irrigation purposes in several places at small scale. There are several ground water developments for different purposes for

municipality, institutions, and private investors and for individuals both for domestic and industrial uses. Akaki well field is the most known developed ground water for Addis Ababa water supply with very high yield, some wells up to 90l/s (FSSEZOLUPS, 2011).

As of informants during interview with bureau of urban plan and evaluation office highlighted that, the development of satellite city has brought a significant impact on slums and blighted areas of the surrounding towns and would be re-developed to adequate open space standards, and thus slum property will sink to zero, those slums will be pulled down and the cities occupied by modern urban infrastructure facility, and also reduce the burdens of Addis Ababa in many ways.

In addition to that, most of respondents and informants from policy analysis and study office head and department of urban plan and evaluation office, indicate that the surrounding satellite towns contribute to urban and rural development in the following ways:

- Acting as centres of demand/markets for agricultural products from their surrounding rural region, either for local consumers or as links to broader markets.
- Acting as centres for production and distribution of goods and services to their rural land. Such concentration is assumed to reduce costs and improve access of rural population to a variety of services (health, education, administration, leisure).
- Becoming centres for the growth and consolidation of nonagricultural activities and employment through the development of high and medium-size enterprises and industries.

- Attracting rural migrants from the surrounding region offering them job prospects and perhaps decreasing migration pressures of Addis Ababa.

These towns have unique natural areas or resources, strategically located vacant or underutilized land, protected open space, and traditional institution and indigenous knowledge. Among opportunities in these towns is proximity to capital city and diversified market, tourism, access to information (FSSEZOLUPS, 2011).

In general term, most of respondents and informants from policy analysis and study office head and department of urban plan and evaluation office indicate that, the adoption of satellite city programme to surrounding towns would bring the following major outcomes.

- Help population pressures away from the mother city, those who migrate to the mother city would shift to these satellite towns and those who live in the mother city would migrate to these satellite towns for sustainable and well-paying jobs.
- It contributed significantly to housing needs, enabling hundreds of thousands of people to benefit from improved housing conditions, coupled with the job opportunities that the satellite towns provided and become, economically viable and meet the demands of their population.
- It helps towns to become autonomous and decentralised units that are sustainable cities of the future.

5.3.1. Economic Analysis

As far as the proposed satellite city is concerned, there will be several industrial areas and residential centers. In the residential areas, there will be a whole set of cultural

establishments and welfare centers. The satellite towns will be the economic, social and cultural hubs at which all facilities will be contained. Near the city, complex industrial zones will be created where all sorts of industries, ranging from small to big ones, will be built. These industries will be owned by entrepreneurs whose co-existence and synergy would facilitate knowledge and skill transfer from the most experienced to infant industries.

The formation of such industrial cluster will play a pivotal role in the structural transformation process of the nation. On top of that, there will be sectoral integration in the country as the expansion of industries in the surrounding localities would create immense demand for agricultural products, manufactured goods and services.

The agglomeration of industries will create a great deal of employment opportunities, which would enhance structural and agricultural transformations. The prime target of all socioeconomic policies of Ethiopia is to achieve structural transformation whose prime aim is to minimize the role of agriculture in the long run and thereby fortify the industrial base of Ethiopia. The expansion of industries will have also spillover effects as it creates a lot of employment opportunities and do away with the foreign exchange constraints of the country.

This would facilitate economic growth and development. Indeed, the development experience of the west and other developing countries witness that it is the industrial sector that should lead the economy if fast and sustainable growth is to be brought about. The expansion of industries and other economic sectors will have its own role to raise adequate tax revenue for the local government, which would abridge the expenditure gaps of the government.

According to data gathered from most respondents and informants, the critical role of satellite towns seen as centres from which innovation and modernisation would trickle down to the rural population.

From rural areas physical access to the markets in satellite towns and the extent of these towns' connection to wider network of mother city and urban areas, satellite towns have a key influence on bring together a range of intensive economic activity and are a critical part of the country economy.

- Flows of agricultural and other commodities from rural based producers to urban markets, both for local consumers and for forwarding to regional, national and international markets.
- Flows of manufactured and imported goods from urban to rural settlements.
- Flows of people moving between rural and urban settlements, either commuting on a regular basis, for occasional visits to urban-based services and administrative centres, or migrating temporarily or permanently.
- Flows of information between rural and urban areas include information on market mechanisms – from price fluctuations to consumer preferences – and information on employment opportunities for potential migrants.
- Reflect the image, culture and wellbeing of the communities they serve. They provide the breadth of services private community. And also reflect the social structure of the various parts of the region and are important places for social connection.

5.3.2. Historic Analysis

Ethiopia, a country whose history goes back to the ancient Axumite kingdom and had then been known by the name Abyssinia, may be ranked among the longest surviving states in the world.

Historical evidences have also shown that this nation was among the strongest states of the earliest. The fact that many antiquities are still dwelling may testify this issue.
The foot prints of ancient civilization are found in each and every corner of the country. The existence of unadulterated and pristine culture of the society engenders the nation to be the cultural center of Africa. The existence of this immense culture combined with modern urban infrastructure could attract a significant number of tourists.

According to the world tourism organization's (Tourism 2020 vision), forecasts that tourism movement to Africa will increase to 47 million arrivals by 2020. This represents an average annual growth rate of 5.5% in contrast to the global forecast rate of 4.1%. Africa's market share of global international tourism is projected to increase. With an estimated total of 44 million international travelers, Africa confirmed its good momentum, sustaining the growth of 2006 and is now averaging a 7% growth a year since 2000. In 2007, North Africa (8%) appears to have done slightly better than sub-Saharan Africa (7%), primarily due to Morocco's 14% rise. Such promising trend of tourist flow to Africa, the construction of satellite city considered as a supporting corner to the new millennia with a new feature and initiative.

According to (MoCT and WB, 2012), Ethiopia has immense tourism potential owing to its natural, historical and cultural endowments the land of the Queen of Sheba, home of the Ark of the Covenant, the birth place of coffee and 'Lucy'- the world's oldest known almost-complete hominid skeleton, more than three million years old. One of the reasons behind the sector's poor performance is lack of infrastructures.
Tourism faces a combination of hard and soft infrastructure bottlenecks; the principal hard infrastructure bottlenecks with respect to tourism development in Ethiopia include low road density, lodging infrastructure capacities especially in the regions, and domestic air transport capacity. Main soft infrastructure bottlenecks refer to a limited

capacity of payment systems, especially credit card payment systems, including availability of ATMs, particularly in the regional areas (MoCT and WB, 2012). There is a serious shortage in number and type of tourist facilities at existing and potential tourist destinations and vicinities; moreover, the quality of service is poor and unsatisfactory to tourists (MoCT, 2009). Therefore, there is an urgent need to increase the supply of good quality infrastructure; the satellite town's programme will have a significant role in order to improve the competitiveness of the sector.

Table 7: Existing hotel capacity, projected and unsatisfied demand (Actual data for existing hotel capacity and unsatisfied demand)

Year in G.C	Projection of Tourist Arrival	Room Night Demand	Existing Hotels Annual Capacity	Unsatisfied Demand
2011	523,438	2,093,752	1,778,280	315,472
2012	574,212	2,296,848	1,778,280	518,568
2013	629,910	2,519,640	1,778,280	741,360
2014	691,011	2,764,044	1,778,280	985,764
2015	758,039	3,032,156	1,778,280	1,253,876
2016	831,569	3,326,276	1,778,280	1,547,996

Source (Ebisa and Andualem, 2013)

Table 8: The Number of Room Capacity – all hotel establishments in Ethiopia (2008 to 2011) Ministry of Culture and Tourism (MOCT)

Years/ Ratings	2008		2009		2010		2011	
	Count	%	Count	%	Count	%	Count	%
Deluxe	0	0	0	0	0	0	0	0
5 stars	469	3.51	794	5.62	794	4.38	794	4.17
4 stars	1,073	8.03	921	6.52	921	5.08	921	4.84
3 stars	1,368	10.24	1,691	11.98	1,691	9.33	1,692	8.89
2 stars	1,527	11.43	1,465	10.38	1,465	8.08	1,465	7.70
1 star	695	5.20	698	4.94	698	3.85	698	3.66
Unclassified Hotels	8,226	61.58	8,549	60.55	12,559	69.28	13,455	70.7
TOTAL	13,358	100	14,118	100	18,128	100	19,025	100

Source: (Ebisa and Andualem, 2013)

Compared to other African countries, the number of hotels in Ethiopia is smaller and in this regard Ethiopia has less competitiveness to attract big international conferences than other countries. In the regional states, the shortage of accommodation which meets international standards is quite serious and improving the existing accommodation and constructing additional lodging are crucial to attract international tourists to the natural and cultural tourism destinations in the country (Ebisa and Andualem, 2013).

5.3.3. Political Analysis

The existence of huge concentration of diplomatic Corps in Addis Ababa provides the city with a suitable environment whereby nations come closer to share ideas of common interest that would promote their ideals and exchange views of wider significance.
The prevailing unique diplomatic atmosphere would call for an initiative towards celebrating the all-out efforts of countries through sharing the politics, economics and socio-cultural assets of their respective countries with the international community. Such initiative indeed needs the existence of a multi-facet city, which could avail conducive environment for diplomats and other international bodies.

As informants during interview with policy analysis and study office head and department of urban plan and evaluation office that, a significant number of international and national headquarters are based in Addis Ababa. As a matter of fact, subsequent political and other related meetings and conferences are often held in Addis Ababa. Hosting such huge political and other meetings require the having of well-furnished cities that could provide full-fledged services to the participants. The construction of Satellite City gives the country an opportunity of hosting big political and other meetings and hence engenders the nation to have an influential political role in the continent and in the world. On the other hand, the construction of satellite city is

believed to have a concrete response for the hesitation others may have concerning the location of the headquarters of AU.

5.3.4. Technological Analysis

Here, the result of the survey and informants during interview shows that the construction of such city will lure many international companies whose existence will play paramount importance for technological transformation. Currently, Ethiopia is attracting the attention of many investors and will do the same with the corporate world as well. The construction of such city will also have a huge importance for technological generation, diffusion and dynamism.

Contemporary growth theories indicate that accumulation of human capital would ease the use of technologies and new innovations that accelerate the growth of nations. As this city will have its own schools, universities and other technological centers, new technologies will be born and existing ones will be modified to the better. The industrial agglomerations, if accompanied by massive educated labor force and availability of well-organized research centers, could be the center of technology.

The experience of developed nations shows that countries first started from simple and manageable industries whose expansion later requires the coming of complex and huge industries. Such approach is traditionally called bottom up approach. In Ethiopia, many light and medium industries are being built. The having of such industries will help the coming of large scale industries. Generally, the existing industrial climate will have positive repercussions on the technological advancement of the city in particular and the nation in general.

The existence of dynamic technological transformation in the developing nation inspires other nations to build technology-based economy. Ethiopia introduced a five

year growth and transformation plan, which aims at bringing dynamic and sustainable economic growth in the country. The introduction of such policy will definitely help the technological advancement of the nation. The proposed city will contribute its own share for the fulfillment of the plan.

The survey results were asked respondents to express their opinion and the result is given bellow:

Table 9: Respondents responses

Level of Agreement	**Respondents**				**Total**
	Urban research and study dep.	Urban training and development department	Urban plan evaluation implementation, monitoring department	(BoFED) policy study and population affairs core process bureau	
Strongly Disagree	-	-	-		
Disagree	2.70%	-	5.41%	5.41%	13%
Neutral		2.70%			
Agree	54.05%	51.35%	37.84%	43.24%	87%
Strongly Agree	43.24%	45.95%	56.76%	51.35%	

Source: Survey Result, 2014

As can be seen the (Table 10) above, each response has shown their agreement on the adoption of satellite city approach. From urban research and study department (97.29%) of the response agreed on satellite city development and from urban training and development department (97.30%) and from urban plan evaluation and implementation department (94.6%) and from policy study and population affairs core process bureau (94.59%). From total responses 87% of the response agreed on the adoption of satellite city. Considering these views and answers from respondents, the satellite city strategy is a hub for cooperating among cities and Addis Ababa in terms of social, political and economic activities of the country, on top of that the objective of the satellite city strategy is

obviously to promote self-determination and self- sustain cities and to benefit the inhabitants of the local people and the local government power to make decision and a plan for their economic development. From the total respondents (13%) of them disagree on the adoption of satellite city the reason is that, satellite city displacing the local farming communities their culture heritage and identities further it control the land by wealthy class distant people on top of that as Ethiopia is an ethnic diversified nation the adoption of satellite strategy may cause for conflict and political instability among nations.

In addition to the questionnaire, the researcher has been made an interview with informants. Their view shows that satellite city is a contemporary city planning strategies that advanced the towns meaningfully and deepen mutual benefits among the surrounding towns and the capital; but according to them, the adoption of satellite city approach in the surrounding towns should in a way to preserve the demography historical, traditional cultural and language of the indigenous people. In addition to that as in formants from Addis Ababa and the surrounding Oromia integrated development plan project office, the federal system in Ethiopia less concern for application of satellite city development because in federal system all regions has equal status and self-administer.

CHAPTER FIVE

Conclusion and Recommendation

6.1. Conclusion

In order to view the concept and importance of satellite city, in the case study of Addis Ababa and the surrounding towns, it is essential to get a concrete understanding of the concepts in a way that to make possible conclusion and recommendation.

Addis Ababa is undergoing a major transformation as evidenced by the development of road networks, schools, healthcare institutions, hotels, condominiums, real estates, banks, shopping centres, and many other businesses. However, Addis Ababa has been overwhelmed by the high rates of population growth in the city.

In order to minimize the growth rate of population and the malaise of urbanization in Addis Ababa, actions would be taken for the prospect of satellite city development in surrounding towns of Addis Ababa. Satellite cities offer a viable way for countries to meet the demands of urbanised cities. Satellite cities allow a city to grow in ways that sustain long-term viability of the urban areas. It allows a city to develop social, political and economic systems capable of responding to environmental and demographic changes.

Gelan, Dukem, Suluta, Burayu, Holeta, Sebeta on the loop around Addis has a potential to be a satellite towns and one which serves a significant regional function for northern, southern, eastern and western part of Addis Ababa. It has a level of importance for Addis Ababa and the country as well. These towns have important land holdings and

resources in the areas and can achieve the required outcome with an appropriately developed Master Plan. These towns has planned future role of the town related functions could be allowed to develop urban infrastructure facilities such as transport, housing, health facilities, water, sewerage, drainage and solid waste management to channelize their future growth and to enhance the sustainability of urban infrastructure.

The proposed satellite city in surrounding of Addis Ababa will have greater values in terms infrastructural development such as land management and decentralise of the city with full social, cultural, and environmental planning concepts that take in to account the impact it can have on the environment. Therefore, to achieve physical design of modern and vibrant surrounding towns that justifies social, cultural, environmental, historical and economic benefits and maintains the value of the indigenous communities.

As mentioned earlier, Addis Ababa faces infrastructure bottlenecks the surrounding towns also not in a modern urban form, technology and infrastructure, but the development of satellite city in surrounding of Addis Ababa will directly benefit the country in immense ways. Cities with modern and vibrant urban form are powerful and are considered to be successful economic development engines. They normally attract industries related to time-sensitive manufacturing, tourism, hospitality, telecommunications, e-commerce and logistics as well as high value agricultural growers.

It is obvious that, cities consume a far greater amount of resources than any other human environment and offer opportunities for sustainable development. The development of a satellite city in the surroundings of Addis Ababa will attract the attention of the investing world to Ethiopia in a way that has never been done before. The plan of such cities as Tatu and Konza Technology City in Kenya, Kigamboni city in

Dares Salaam, Kakungulu in Kampala with Ethiopian heritage and culture that carried strongest social, political and economic tool to securing foreign investment, promoting positive international attention and indeed signaling a new national economic awakening. This is supported during interview with most informants the development of satellite city would bring a general success in economic and in social terms, it has wider benefits in terms of the national and regional economies and social development.

Furthermore, as Ethiopia aspires to become a middle- income nation, urbanization is an important vehicle and key path towards this goal. The dream to be a middle-income country is difficult to be achieved with the current level of Ethiopian urbanization. In cognize of this satellite towns play a great role to create a balanced development and enable towns play their respective appropriate roles in the process of urbanization and development.

Finally, satellite towns help to meet the government plan of scaling up the role of urban centres in Ethiopia economy through achieving 30% and 50% level of urbanization in 2023 and 2038 respectively and creating a strong urban system.

6.2. Recommendations

The satellite city plan is aimed at physical development such as land management for better utilisation of land with full social, cultural, and environmental planning concepts. During planning diverse multi layered socio-cultural orders, common shared values, systems, villages, traditional settlements, historical places, sense of belongingness and ownership and related religious amenities of indigenous nature on which planning can have a devastating effect. It will destroy all of these values if not practiced carefully and

if legal measures and institutions are not in place to protect all of these including environmentally sensitive areas.

The planning of the satellite town shall be on the concept of continuity, compactness and self –containment. Each part of the township while being self-sufficient in it should form an integral part of the town as a whole having clear functional linkages with the Addis Ababa and other urban centers in the respective region. The planning of satellite town may adopt different kind of development i.e. low-rise and low-density development high rise medium density or high-rise and high-density development depending on the local and felt demand.

The planning of the town shall address environmental sustainability issues, green buildings and disaster mitigation aspects. In this regard, the town may evolve norms and space standards flexible enough to meet the socio-economic, physical and environmental needs. In providing for infrastructure facilities and services needs to be followed so as to have rational and judicious use of scarce resources both in the form of land and fiscal resources.

However, in spite of these sentiments and aforementioned concerns, satellite cities programme fully considered the various reasons and need to be addressed the following concerns:

- The satellite city programmes has focused on social issues and also socially oriented goal. So, it should be socially responsible towards achieving a wider goal of benefiting the indigenous people as well as the nation as a whole.
- It should protect towards the cultural and historical heritage of the local communities of the people that existed for thousands of years.
- Resettlement and relocation plans should be well structured.

- Satellite cities should include affordable housing.
- Designs should incorporate local landscape and environment, where landscaping will done with the aim of preserving the environment
- Make use of Ethiopians and the local indigenous aesthetics and designs in terms of colures, motifs, names and so on. It should incorporate designs by Ethiopian artists, graphic designers and architects.

Furthermore, satellite towns have a potential to all class of citizens, it should not be towards a certain class of people, the poor and vulnerable populations in the satellite towns may not face an increased risk of further marginalization and impoverishment and this is clearly identified the potential costs of living and working within these cities in order to avoid segregation of social class. Finally, Ethiopia followed a federal system as informants indicate during interview that the federal system in Ethiopia give less concern for application of satellite city development because it considered as disorder the equal status and self-administration of regions. Hence, the aim of the research also to make possible solution for regional development giving full consideration the status and self-administration of the regions on the light of satellite city approach like other federal countries do.

Reference

AACTA, Addis Ababa City Transport Authority. Facts about Addis Ababa City Transport, 2008 http://www.telecom.net.et/~aata/

(AACRA), 2013 City of Addis Ababa Road Authority, Annual Report.

A.A. BoFED, 2005/ 2013 Socio-Economic Profile city administrations of Addis Ababa Finance and Economic Development unpublished.

Acharya, Abhimanyu September 2012, An exploration into Delhi's satellite towns within the Delhi Metropolitan Area (DMA) through a study of spatial structure, linkages and development schemes.

Blumenfeld, H. (1967) The Modern Metropolis (Boston, MA: MIT Press).

Central statistics Authority, Icps, 2012 projection report.

Cherry, G.E. (1988) Cities and Plans (London: Edward Arnold).

Cities Alliance, 2006, Guide to City Development Strategies Improving Urban Performance

Constitution of The federal Democratic Republic of Ethiopia, 1995

Dubbale Daniel A., Tsutsumi J., and Michael J. Bendewald, 2010, Urban Environmental Challenges in Developing Cities: The Case of Ethiopian Capital Addis Ababa.

EBISA C. GOBENA AND ANDUALEM H. GUDETA, 16 AUGUST, 2013, HOTEL SECTOR INVESTMENT IN ETHIOPIA.

Falk, Tyler May 09, 2012, How Satellite Cities Are Reshaping East Africa: www.theatlanticcities.com

(FSSEZOLUPS) FINFINNE SURROUNDING SPECIAL ZONE OF OROMIA INTEGRATED LAND USE PLANNING STUDY PROJECT, MARCH 2011, The National Regional State of Oromia Oromia Land and Environmental Protection Bureau.

Gar-on YEH and Hua-qi YUAN working paper 18 February, 1986, Satellite town development in china problem and prospects, University of Hong Kong, Centre of Urban Studies and urban planning,
CEEPA, Centre for Environmental Economics and Policy in Africa.

(GHEA), 2010 Greater Horn of Eastern Africa Outlook # 18 are satellite cities the official future of GHEA's urbanization? Society for International Development,

Golany, G. (1976). New-town planning: principles and practice. New York: Wiley.

Hardoy, J. *et al*. 2001. *Environmental Problems in an Urbanized World,* Finding Solutions for Cities in Africa, Asia and Latin America, London

Haregewoin Bekele, (2005) Urbanization and Urban Sprawl, 2005, MSc Thesis, Stockholm University

Howard, E. (1902). Garden cities of tomorrow, London,: S. Sonnenschein & co., ltd.

Howard, E. (1898, 1985) Garden Cities of Tomorrow (Rhosgoch, Wales: Attic Books).

Lowton, R. 1997. *Construction and the Natural Environment,* New Delhi

Mara Gittleman, 2009, Tufts University Urban Expansion in Addis Ababa: Effects of the Decline of Urban Agriculture on Livelihood and Food Security

Meheret Ayenew. 1999. The city of Addis Ababa: Policy options for the governance and management of a city with multiple identity. *FSS Discussion Paper,* no. 2, Addis Ababa: Forum for Social Studies.

Mengyi, Chen June, 2011, From Satellite Towns to New Towns, Evolution and Transformation of Urban Spatial Structure in Chinese Metropolises

Merlin, P., 1980. The New Town Movement in Europe, The ANNALS of the American Academy of Political and Social Science, American Academy of Political and Social Science.

Minwuyelet Melesse, 2005, City Expansion, Squatter Settlements and Policy Implications in Addis Ababa: The Case of Kolfe Keranio Sub-City.

(MoCT and WB) Ministry of Culture and Tourism and World Bank Group, October 2012, ETHIOPIA'S TOURISM SECTOR: STRATEGIC PATHS TO COMPETITIVENESS AND JOB CREATION.

(MoCT), Ministry of culture and tourism, 2009, tourism development policy

(MoFED) FINANCE & ECONOMIC DEVELOPMENT BUREAU, 2010 URBAN DEVELOPMENT INDICATORS ADDIS ABABA CITY GOVERNMENT August, 2002E.C Addis Ababa

Oromia National Regional State Program of Plan on Adaptation to Climate Change February, 2011

Pan, J. Z. (1957). On the basic principles of satellite town planning [In Chinese]. Chengshi jianshe,

Parvaker Sahoo, Ranjan Kumar Dash and Geethanjali Nataraj, Octber, 2010, Infrastructure development and economic growth in China,

Redman and Nancy S. Jones (2004), The Environmental, Social, and Health Dimensions of Urban Expansion, International Institute for Sustainability and the Consortium for the Study of Rapidly Urbanizing Regions, Arizona State University.

Sir Patrick Abercrombie, 1956, Mater Plan of Addis Ababa.

SORENSEN ANDRE´, *International Planning Studies, 2001* Subcentres and Satellite Cities: Tokyo's 20th Century Experience of Planned Polycentrism *Department of Urban Engineering, University of Tokyo, Hasamagaoka 3–25–3, Sanda-shi, Hyogo-ken, Japan 669–1545.*

TACOLI, MARCH, 2012**,** URBANIZATION AND EMERGING POPULATION ISSUES WORKING PAPER 7 Urbanization, gender and urban poverty: paid work and unpaid care work in the city.

Tegegne Gebre Egziabher, January, 1998, THE INFLUENCE OF DECENTRALIZATION ON SOME ASPECTS OF LOCAL AND REGIONAL DEVELOPMENT PLANNING IN ETHIOPIA

Thomas P. Z. Mpofu, January, 2013 An evaluation of the performance of urban agriculture in Addis-Ababa City, Ethiopia.

Yirgalem Mahiteme, October 2007, Carrying the Burden of Long-term Ineffective Urban Planning' An Overview of Addis Ababa's Successive Master Plans and their Implications on the Growth of the City Working papers on population and land use change in central Ethiopia, nr. 7

UN-HABITAT, 2008 United Nations Human Settlements Programme Regional and Technical Cooperation Division, ADDIS ABABA URBAN PROFILE.

UN-HABITAT, 2007 SITUATION ANALYSIS OF INFORMAL SETTLEMENTS IN ADDIS ABABA CITIES WITHOUT SLUMS Sub -Regional Pro gramme for Eastern and Southern Africa ADDIS ABABA SLUM UPGRADING PROGRAMME United Nations Human Settlements Programme.

UN Habitat (2010). "Urban Sprawl Now a Global Problem", a report on state of World Cities 2011.

UNWTO United Nation World *Tourism Organisation (2020), Vision* Series of 7 Reports:- Global Forecast and Profiles of Market Segments - 6 regional volumes, volume 1 Africa, www.unwto.org/infoshop.

Questionnaire

Addis Ababa University Department of Public

Administration and Development Management Master in Public

Management and Policy

Dear Respondents;

I am masters student in Addis Ababa University conducting a research entitled "The concept of satellite city and its importance for urban and socio economic development the case of Addis Ababa and its surrounding towns". I would like to express my sincere appreciation for your generous time, honest and prompt responses.

This voluntary survey is a part of my partial fulfillment of MA degree in development management. The purpose of this study is to illustrate the concept of satellite and its importance particularly in Addis Ababa, The core part of the concept is by building satellite cities near the metropolitan, so that a part of rural-urban migrants can be attracted and therefore population growth is controlled in the central area; or some urban function, especially the industrial function, is decentralized into the newly-built area.

Please be assured that your privacy is of utmost importance and that your responses to the survey will remain confidential. This survey has both open and close ended questions and will only take about 10-15 minutes of your time and the answers you submit will provide valuable information. I am thankful for your time and patience in completing this survey and I hope my analysis and results will offer a contribution to the realization of the prospects of the satellite city development in Addis Ababa. If you have any inquiry, Please send your request to: sentyoni@live.com.

Best regards,
Yonatan Wodajo

Annex-I

Section I: Demographic Variables of the Respondents

Please tick "√" inside the box that best represent your answer.

NO	
1	Name of the Respondent _____
2	Sex ☐ Male ☐ Female
3	Which of the following age category describes you? ☐ Under 25 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55 & above
4	Marital status ☐ Single ☐ Married ☐ Divorced
5	How many years you have worked for Ministry of work and urban development? ☐ 0-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21 & above
6	You're educational Qualification? ☐ High school ☐ College diploma ☐ Degree ☐ Technical school graduate ☐ Master's Degree ☐ PHD
7	I work in the Ministry of work and urban development bureau of urban planning, sanitation beautification department of: ☐ Urban Research and study bureau ☐ Urban Training and development bureau ☐ Urban plan evaluation implementation, monitoring and feedback bureau I work in the bureau of finance and economics department of: ☐ Policy study and population affairs core process

Annex-II

Section II: Close ended questions related to satellite city development

NO	Please rate the following statements by ticking "√" only one box below with the response that you think best represents you're feeling about.
1	The development of satellite city is important for urban problem that has been seen at present time in Addis Ababa? ☐ Strongly Agree ☐ No opinion ☐ Disagree ☐ Agree ☐ Strongly Disagree
2	One of the social benefits from satellite city development is to bring a modern urban life to the people? ☐ Strongly Agree ☐ No opinion ☐ Disagree ☐ Agree ☐ Strongly Disagree
3	The linkage of the satellite towns with Addis Ababa includes access of infrastructures such as roads; electricity and water, Movement of population, urban partnership and private investment participation are the major one? ☐ Strongly Agree ☐ No opinion ☐ Disagree ☐ Agree ☐ Strongly Disagree
4	The major factors considered, regarding public facilities in related to satellite city development is housing facility; employment opportunity and adequate infrastructural facility are the major one? ☐ Strongly Agree ☐ No opinion ☐ Disagree ☐ Agree ☐ Strongly Disagree
5	The major reasons to develop satellite city is to improve socio-economic and infrastructural problem in the surrounding towns and in Addis Ababa? ☐ Strongly Agree ☐ No opinion ☐ Disagree ☐ Agree ☐ Strongly Disagree
6	How do you evaluate access of health service delivery, health service facility, medical equipment and health posts, in regard to distributing basic health information, and providing essential services to the surrounding people? ☐ Very good access ☐ No opinion ☐ low access ☐ Good access ☐ very low access
7	How do you evaluate the demand for housing in surrounding towns? ☐ Very good access ☐ No opinion ☐ low access ☐ Good access ☐ very low access
8	How do you rate the level and availability of access to water in surrounding town? ☐ Very good access ☐ No opinion ☐ low access ☐ Good access ☐ very low access
9	How do rate the accessibility of safe and comfortable road in surrounding towns? ☐ Very good access ☐ No opinion ☐ low access ☐ Good access ☐ very low access
10	One of pull factors Addis Ababa offering to migrants has, better living standards than all other cities in the country? Like access to basic services, infrastructure and employment opportunities for citizens across the country? ☐ Strongly Agree ☐ No opinion ☐ Disagree ☐ Agree ☐ Strongly Disagree

11 How do you rate the level of access of public transport availability in surrounding towns?

☐ Very good Access ☐ No opinion ☐ low access
☐ Good access ☐ very low access

12 The adoption of satellite city developments underway in the surrounding towns of Addis Ababa and can these towns indeed share the burdens of Addis Ababa particularly rural-urban migration?

☐ Strongly Agree ☐ No opinion ☐ Disagree
☐ Agree ☐ Strongly Disagree

13 What are the major opportunities related to satellite city development over the surrounding towns? (More than one answer is possible)

Major Opportunities	
☐ **Improve the life of the people**	☐ Improve housing problem
☐ **Create employment opportunities**	☐ More advanced in technology
☐ **Control internal migration in the metropolis**	☐ Create civilized and educated people
☐ **Due to the developments in transport, people can get from place to place more easily.**	☐ Improve the health facilities
☐ **Women are becoming educated & children are not as needed as they were on farms and agricultural work.**	☐ Availability of modern infrastructural facility

14 People would prefer to live close to the urban areas to enjoy the social life, community services and facilities?

☐ Strongly Agree ☐ No opinion ☐ Disagree
☐ Agree ☐ Strongly Disagree

15 Which surrounding towns is possibly the major one for satellite city development? Rank based on their important criteria?

1st Gelan____ criteria _____
2nd Dukem___ criteria _____
3rd Sebeta____ criteria _____
4th Burayu___ criteria _____
5th Holeta ___ criteria _____
6th Sululta___ criteria _____

16 Consider as if satellite policy adopted in Ethiopia and what outline strategy should follow and who are the main actors involve in it? (More than one answer is possible)

☐ Government (Federal and Regional Government)
☐ Steak holders, (NGO's, civil society organizations)
☐ The public at large, etc.
☐ Other (specify) _____ _____ _____

17 How can you describe the satellite city approach over the surrounding towns?

☐ Interested approach ☐ Not interested approach ☐ Cannot be determined

18 Are you interested on satellite city approach and concept? ☐ yes ☐ No
If yes how do you rate the approach and concept of satellite city ……
If no why……

Section III: Open ended questions related to satellite city development

1	**How do you evaluate the satellite city concept in terms of socio economic development? -** ---------- ---------- ----------
2	Could you explain the contribution of satellite towns to urban and rural development? --------- ---------- ---------- ----------
3	What is your response, if the satellite policy adopt in Ethiopia how do you explain the benefits to the urban and rural local people in the surrounding towns? ---------- ---------- ---------- ----------
4	How do you evaluate Gelan, Dukem, Suluta, Burayu, Holeta and Sebeta in terms resources like land accessibility and settlement structure with Addis Ababa for the application of satellite city development? ---------- ---------- ---------- ----------
5	Would you describe the importance of satellite city in terms of: a) Economic advantages? ---------- ---------- ---------- ---------- ---------- b) Historic advantages? ---------- ---------- ---------- ---------- c) Political advantages? ---------- ---------- ---------- ---------- d) Technological advantages?---------- ---------- ---------- ----------

Thank you for completing this Survey!

Annex-III

A Guideline for Key Informant Interview

Name of Respondent _____
Occupation _____
Position _____
Level of Education _____

NO	Interview	Remark
1	What satellite city is?	
2	Criteria to select satellite city approaches?	
3	What is your opinion on satellite city concept?	
4	What are the major reasons to develop satellite city?	
5	What towns can be satellite city for Addis Ababa?	
6	What are the problems in relation to urban development?	
7	Opportunities of satellite city for Addis Ababa?	
8	Advantages of satellite city approach in terms of : a) Economic? b) Historic? c) Political? d) Technological?	
9	What are the benefits of satellite city for surrounding towns?	
10	What are the basic requirements involve in satellite approach?	
11	What are the processes carried out for satellite city development?	
12	What are the economic benefits from satellite city development?	
13	Could you explain the contribution of satellite towns to urban local and rural development?	
14	How do you evaluate Gelan, Dukem, Suluta, Burayu, Holeta and Sebeta in terms resources like land accessibility and settlement structure with Addis Ababa for the application of satellite city development?	
15	What policy frame work should be followed for implementation of satellite city?	
16	In your opinion, what are the major components for satellite city development?	
17	In your opinion, what are the major factors considered, regarding public facilities in related to satellite city development?	
18	What do you suggest, on the activities that should be followed for the implementation of satellite city development?	
19	Which surrounding towns is possibly the major one for satellite city development? Rank based on their important criteria? 1s Gelan____ criteria _____ 2nd Dukem___ criteria _____ 3rd Sebeta____ criteria _____ 4th Burayu___ criteria _____ 5th Holeta___ criteria _____ 6th Sululta___ criteria _____	
20	What are the major infrastructural problem regarding, health, education, water and sanitation, Market, road, electricity, housing, telecommunication, etc. in Addis Ababa? And how satellite city policy manages this problem?	
21	What seems the linkage of the satellite city area with Addis Ababa? • Access of infrastructures such as roads, electricity, water, etc. • Movement of population • Urban partnership	

	• private investment participation	
22	What do you suggest, the applicability of satellite city in current conditions of Ethiopia?	
23	Do you have any other worries related with satellite city development?	

Thank you!

Annex-IV

Figure 11: Existing Land Use of Gelan Town

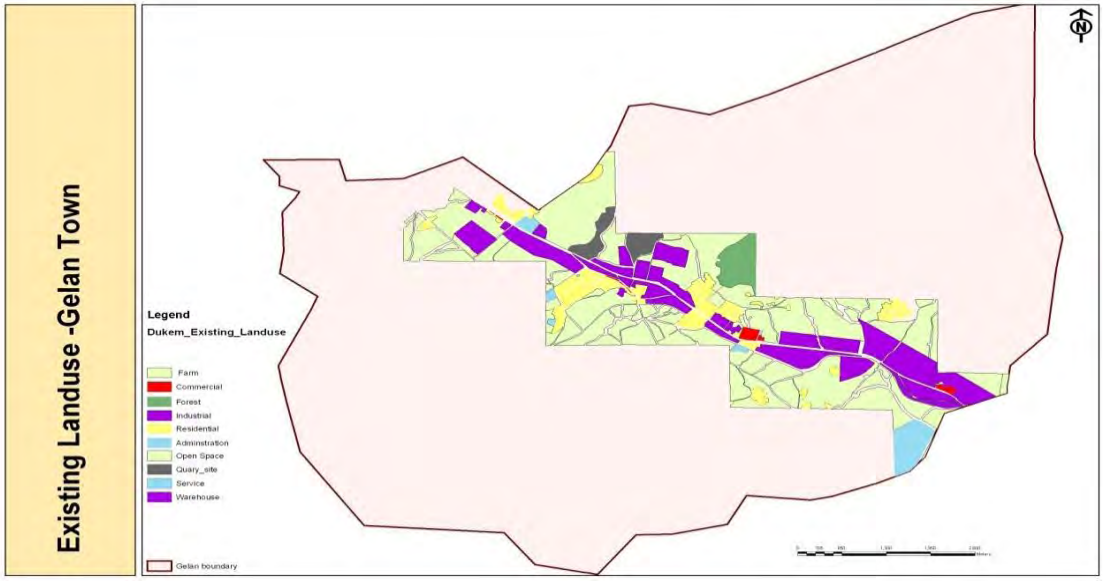


Table 11: Computation on Existing Land Use Coverage

No	Existing Land Use	Area (ha)	Percentage
1	Commercial + Gas Station	6.9	0.44
2	Residential +(Real estate)	133.1+15.7=	9.5
3	Industrial + Ware House	287.6+1.3=288.9	15.51
4	Administration	6.7	0.42
5	Service	5.8	0.37
6	Quarry Site	37.7	2.4
7	Green (Open space, Farm Land ,Forest)	5.6+3.7+971.0+42.8=1023.1	65.5
	Total	1560.6	100

Annex-V

Figure 12: Existing Land Use Plan of Dukam

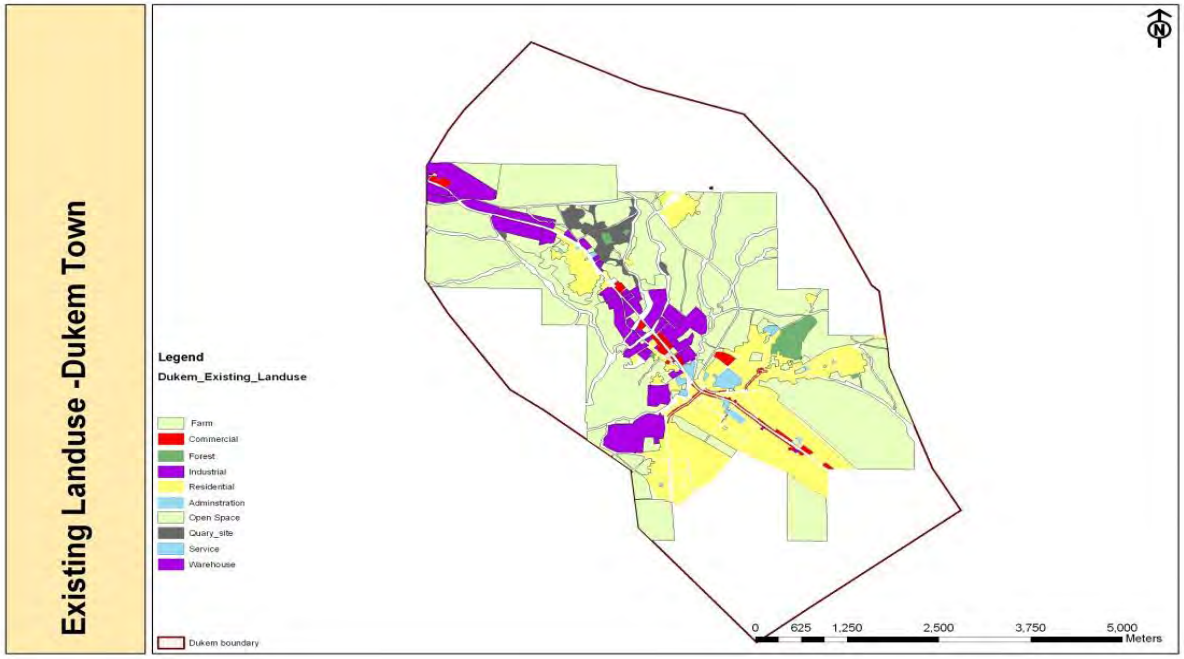


Table 12: Computation on Existing Land Use Coverage

No	Existing land use	Area (ha)	Percentages (percent)
1	Commercial + Gas Station	27.35+.9=28.2	1.51
2	Residential	372.2	19.9
3	Industrial + Ware House	185.9 +.94= 186.8	10.01
4	Administration	4.60	0.25
5	Service	17.3	0.93
6	Quarry Site	38.0	2.0
7	Green (Open space, Farm Land ,Forest)	41.9+1194.9+26.5=1263.3	67.7
	Total	1865.4	100

Annex-VI

Figure 13: Existing Land use of Sebeta Town

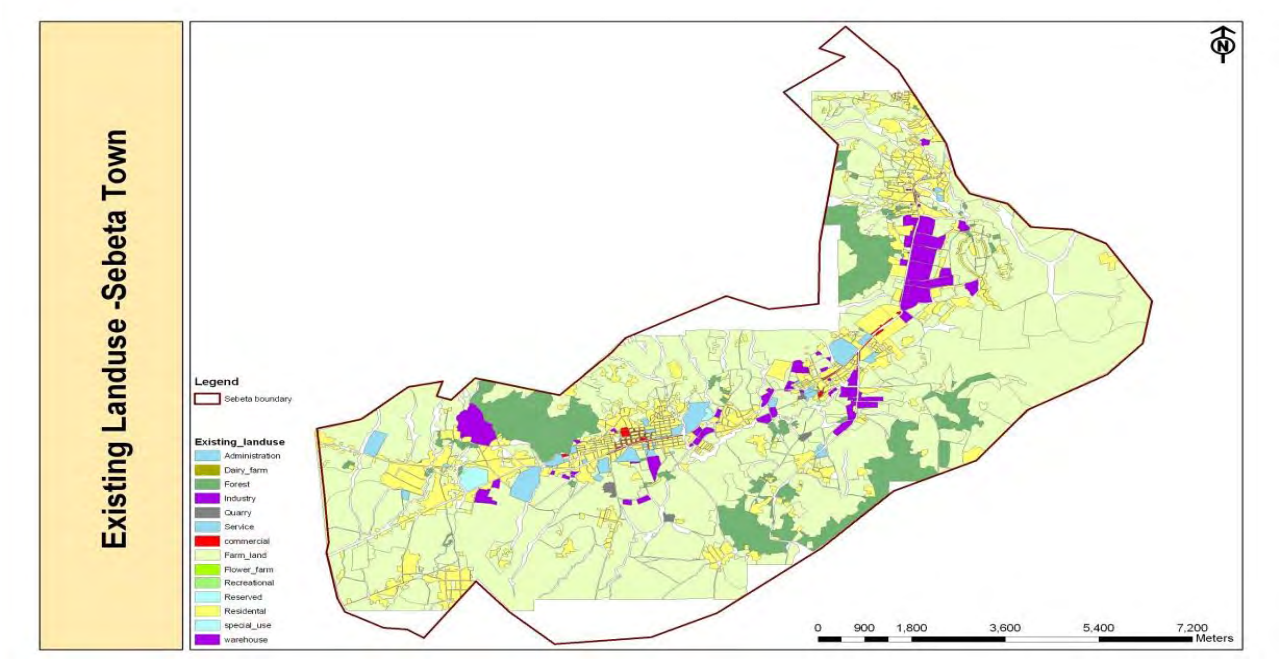


Table 13: The existing land use classification and percentage of area coverage of different uses

No	Existing use	Area	Percentage
1	Residence	1106	**14.8**
2	Industry	288	**3.8**
3	Service	124	**1.66**
4	Green	6943	**93.4**
5	Quarry site	14	**0.18**
6	Commercial	55	**0.94**
	Total	**7430**	**100**

Annex- VII

Figure 14: Land Capability Plan for Burayu Town

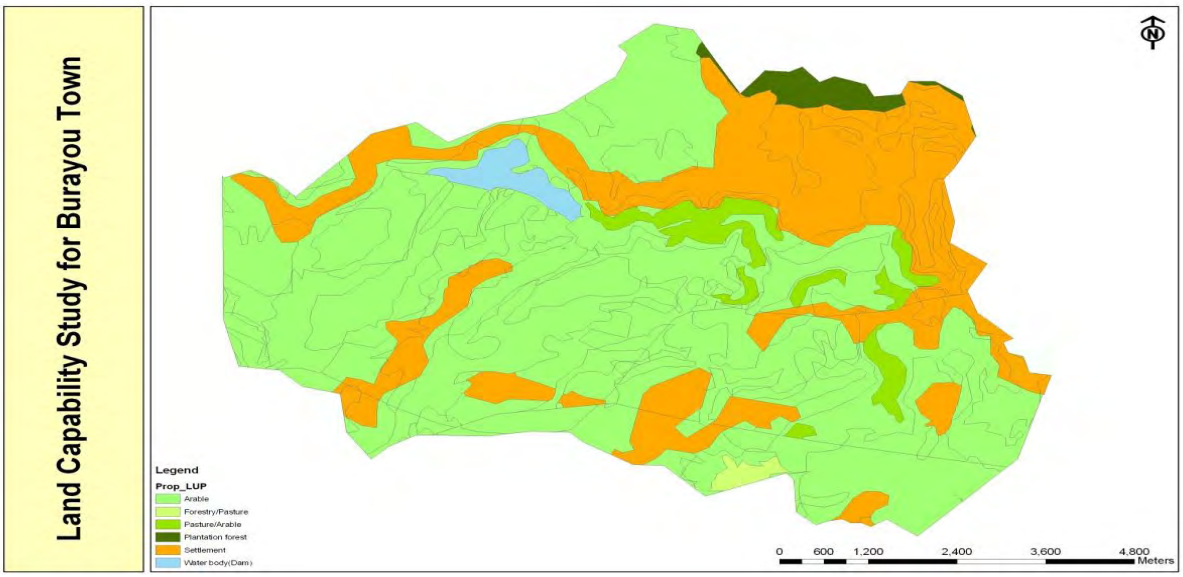


Table 14: Existing Land use proportion and Classification

No	Use	Area (he)	Percent
1	Commercial	6.6	0.11
2	Residence	790	13.9
3	Industry	251	4.44
4	Green	4285.6	75.8
5	Service	61.6	1.09
6	Quarry	38.3	0.67
7	Water body	142.4	2.5
8	Special use	123.9	2.19
	Total	5648.6	100

Annex- VIII

Figure 15: Existing Land use Plan of Holeta town

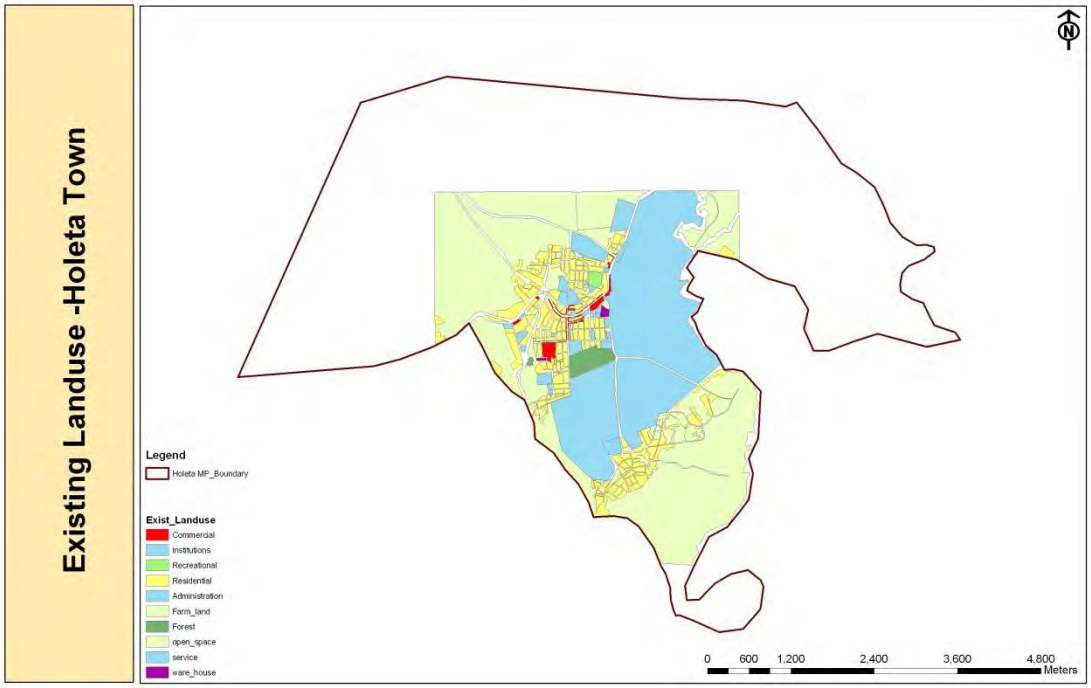


Table 15: Existing land use Classification and proportion

No	Existing use	Area	Percentage
1	Residence	187.5	12.2
2	Commerce	12.2	0.79
3	Industry/warehouse	2.14	0.13
4	Service	516.23	33.7
5	Green	812.1	53
Total		**1530.1**	**100**

Annex-IX

Figure 16: Existing Land use Plan for Sululta Town

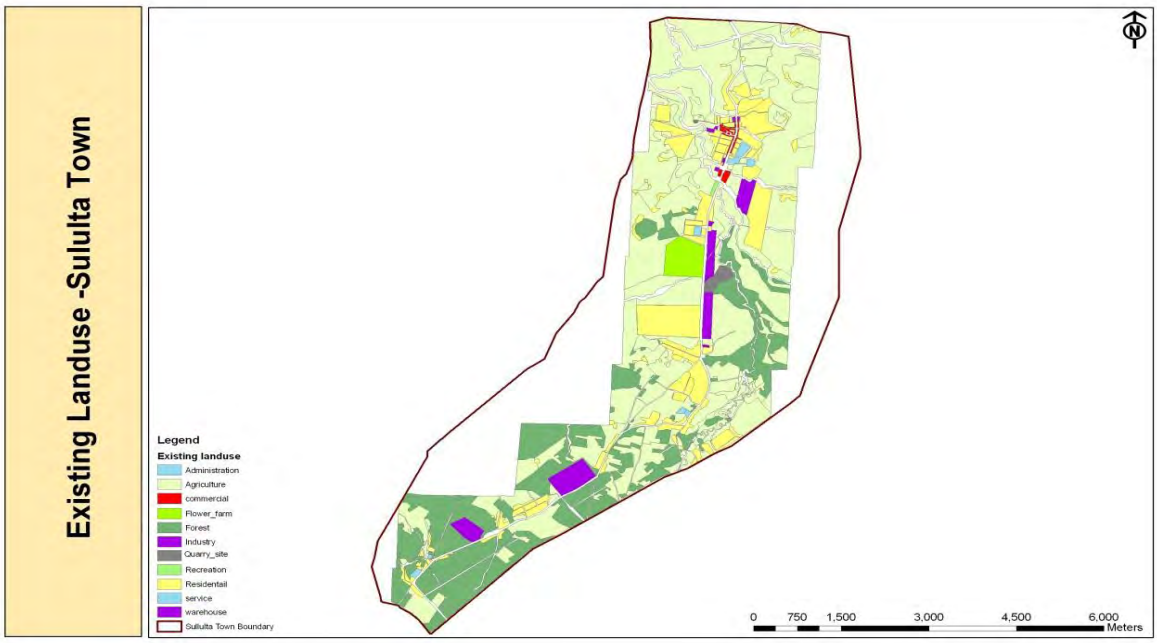


Table 16: Existing Land use Classification and Percentage

No	Existing Use	Area	Percentage
1	Residence	1175.7	30.7
2	Industry	148.0	3.8
3	Service	276.8	7.2
4	Green	1070.2	27.9
5	Mixed Use	276.0	7.2
6	Water Body	28.7	0.7
7	Special Function	94.5	2.46
8	Urban Agriculture	757.1	19.7
9	Transport and Terminal	2.1	0.05
	Total	3829.1	100