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THE USE AND MANAGEMENT OF GREEN SPACES IN MULTI-STOREY RESIDENTIAL QUARTERS IN ADDIS ABABA

BY

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Use and management of green space in Addis Ababa

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Letter of Certification

This is to confirmed that this paper "An assessment of the green space use and management" take on by Asmare Leul Demisew for partial fulfillment of degree of masters in environment and development in Addis Ababa University.

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Letter of Declaration

I, Asmare Leul Demisew declared that these papers “the use and management of green space” is my own endeavor and inquiry and that sources of materials used for the study have been properly acknowledged. I have produced alone except for guidance and supervision of the research advisor. This project has not submitted elsewhere in any universities.

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Table of Content

List of Tables

List of Figures

Acronyms

SC: Siera Club

SGN: Smart Growth Network

SPSS: Statistics Package for Social Science

UGI: Urban Green Space Infrastructure

UN: United Nations

SADC: Southern Africa Development Community

Abstract

In spite of the fact that, green spaces are pivotal for enhancing socio-economic and environmental wellbeing, the attention given by governments and citizens of developing countries like Ethiopia seems inadequate and overlooked one in some cases. Therefore, the purpose of this research is to explore green space development in Addis Ababa city in the case of Jemmo condominium 3 and Kirkos sub city, district 7 apartments. Both quantitative and qualitative research methods adopted. Simple random probability sampling that is percentage was employed to determined sample size. 218 respondents participated in the research living in both sites. Data required for this study collected dominantly from primary sources through questionnaire, interview and personal observation. The data collected were presented in table and graphs and analyzed using descriptive statistics tools like frequency, percentage and mean value. Findings of the study showed a mixed result in that condominiums had better green space use and management practices while apartments had poor green space use and management exercises. Moreover, even condominiums where there is urban green space development relatively effective, its management practice was not adequate due to less government commitment and inadequate community participation in the development and protection of green space. Accordingly, the need for comprehensive green space policy, enhancing community awareness and participation and joint effort of government, community and other stakeholders were among the recommendations forwarded to improve green space management and development.

Key words: Green space use and management, Government commitment, Community participation, Condominium, Apartment

CHAPTER ONE

1. INTRODUCTION

Recently, there has been greater emphasis on urban greening planning and development of cities (Tan et al., 2013). Urban green spaces include parks, various types of active and passive recreational areas with vegetation, street greenery, and pockets of remnant natural vegetation (Qureshi, 2013).

Urban green spaces provide numerous function benefits, also called ecosystem services, to humans that are important for sustainability and to plan attractive cities (Bush, 2020). The benefits include the provision of food and social health, improving environmental quality of life and cultural benefits.

The world's cities are becoming increasingly congested, polluted and overpopulated (specifically in developing countries) and the normal climate pattern is disturbed. What is more, the socio – economic and environmental challenges have increased in urban centers of Ethiopia. The urban green space development practice essential to overcome these problems was barely practiced in the country. It is therefore the researcher conducted this project to assess urban green space use and management in Addis Ababa.

The approaches used in collecting and analyzed data are quantitative and qualitative methods. Descriptive research design was employed to select techniques and steps to gather and analyze the required data which obtained from dominantly primary sources. The sample was taken from Jemmo condominium and Kirkos sub-city apartments through random probability sampling that is percentage.

Descriptive statistical analysis and thematic content analysis were employed to analyze quantitative and qualitative data. Based on analysis, the results were obtained. Thus, conclusion and recommendation was made depend on findings.

The purpose of this research is to evaluate the green space use and management at condominium and apartments in Addis Ababa concerning its practice, altitude and involvement of community and factors affecting it.

1.1 Background

Urban green spaces are defined as "public and private open spaces in urban settings, predominantly covered by vegetation, which are directly or indirectly accessible for users" (Haq, 2011). It is the general term for all such spaces, regardless of whether they are publicly accessible or publicly administered. It includes all portions of parks, playgrounds, and other green spaces designed specifically for recreational use, as well as other green spaces with different origins (Dunnett, Swanwick and Woolley, 2002).Such green areas vary in terms of their size, vegetation cover, species richness, environmental quality, and proximity to facilities, services, and public transportation, according to Wolch, Byrne, and Newell (2014). Public green spaces can be found in parks and reserves, athletic fields, riparian zones along streams and rivers, greenways and pathways, community gardens, street trees, and wildlife preserves.

In an urban setting, urban green areas provide a variety of purposes that improve people's quality of life. Public parks and gardens, as well as urban green spaces, offer resources for leisure time. It also boosts home values since they are aesthetically pleasing and provide amenities (Crompton, 2001). However, the social and psychological advantages of green spaces in cities are the ones that people seek out the most.

Growing urban traffic and urban heat, particularly in emerging nations, not only harm the environment but also have negative social and economic effects. It effectively reduces the energy expenses of cooling buildings. A healthier relationship with the environment can be encouraged and promoted by adding green space to urban areas. In today's sustainable urban planning, it is impossible to ignore the ecological advantages afforded by green areas, which vary from preserving and safeguarding biodiversity to assisting in the mitigation of change.

Numerous ecosystem services offered by urban green spaces could aid in addressing many urban maladies and enhancing the quality of life for city residents. Cities are where the majority of the world's population lives and where the majority of the world's resources are consumed. Thus, there must be an even distribution of green space throughout the city, and the overall area of these places must be sufficient to meet the needs of the entire metropolis.

Despite the fact that green spaces provide so many different purposes, its status has decreased in developing world. In this regard, a study conducted in Dhaka, Bangladesh, revealed that the desire for housing, commercial growth, and other amenities causes dense forests to gradually

transform into built-up regions over time; this lessened as cities continued to grow. According to the studies, there have been fewer green spaces since 1989 (Mabuhay 2005), there have also been changes in land use and land cover (Haque and Basak, 2017). The research conducted in Harare, Zimbabwe, also revealed that the loss of green spaces was a result of inadequate coordination between the various planning organizations. That was determined to be the result of inadequate communication between the institutions (Muderere, 2011). Regarding political meddling, it was discovered that the acts of the Harare city officials are frequently influenced by politics, particularly when it comes to taking the appropriate measures against people who infringe upon green space lands. Due to their tight connections to influential government figures, some of the perpetrators get away with it according to the author. However, contrasting to developing world, the status of urban green space and its function has increased in Europe (Kabisch and Haase 2013).

Africa has a declining amount of urban green space. According to research, the growing urbanization of the continent led to a significant amount of loss of the urban natural environment, including green spaces (Fuwape & Onyekwelu 2011). This was demonstrated by the presence of numerous informal settlements (slums) and urban sprawl on areas designated for green spaces (such as urban forests, parks, gardens, and outdoor recreation places) to contain the dense urban population. With about 200 million slum residents, Sub-Saharan Africa has the highest slum population in the entire world (UN Habitat, 2010). The development and management of urban green space in the continent have been impacted by numerous variables. The ineffectiveness of urban planning legislation, the lengthy bureaucratic procedure involved poor awarding construction permits, and the frailty of planning institutions as a result of having inadequate resources (Mudere, 2011).

In Ethiopia, urban green space has been little progress and there are numerous obstacles to overcome. Urban sprawl, the issue of managing solid and liquid waste, unauthorized habitation, and changes in land use and land cover have all been linked to the country's urbanization phenomenon(Haftu, 2021). Due to poor implementation of development plans, density, built-up area expansion, and a lack of priority for urban green space infrastructure, urban green space in Ethiopia is degrading and inadequately accessible for city dwellers (Sileshi and Hailu, 2020). In terms of urban planning, urban forestry and green space are less important. Its growth has been

hampered by shaky ethical behavior on the part of responsible parties and lax regulatory enforcement (Kumelachew and Sieber, 2021).

1.2 Statement of the Problem

Ethiopia's urban green space situation is deteriorating (Sileshi and Hailu, 2020). Urban planning did not pay enough attention to the importance of developing urban green space. Its expansion has been hampered by careless behavior on the part of responsible parties and lax enforcement of laws (Kumelachew and Sieber, 2021). It lacks the dedication and motivation of concerning parties to effect the desired change in its development. In relation to this, studies on management identified issues with poor land governance, land that was designated for green spaces in a master plan being converted to private use, and a lack of institutional collaboration in the governance of green spaces (AACPO, 2017). Urban green spaces in Ethiopia are still seldom taken into account while establishing policies. The country still has issues with the distribution of green space in major centers. The current state of Ethiopian cities revealed that there is a severe lack of readily available green space for city people (Abeje, 2007).

According to a research done in Addis Ababa by Bekele, Kumelachew, and Sieber (2021), regulations and directives for the development of green spaces are not explicitly established by responsible entities, and enforcement is hardly ever used. However, in addition to these rules and guidelines, the activity of developing green spaces also needs resources like money and labor. Therefore, it is wise to evaluate urban green space planning and policy implementation strategies by considering these materials, which are essential for managing and developing green space.

To achieve effective green space management and development, the community's attitude and behavior must change toward the values of green spaces and their importance for socioeconomic development and environmental health as well. However, in Ethiopia, the practice of educating the public about the benefits of green spaces was not widely used (Kumelachew and Yeshitela, 2020).

Green space management and growth require significant community involvement. The idea of managing green spaces in an urban setting sustainably links community involvement with organizations tasked with doing so and with an efficient governance structure. According to Keough and Blahna (2005), effective ecosystem management depends greatly on the cooperative participation of community with stakeholders.

When making decisions about the development of green spaces, it is crucial to empower stakeholders to reach a consensus by taking into account their views or opinions. The development and administration of green spaces, however, get minimal citizen input in Ethiopia Gezahegne Gebremeskel (2014). Community involvement in ecosystem management was identified as a crucial component of collaborative ecosystem management in the study carried out by Keough and Blahna (2005. However, community involvement in effective ecosystem management requires a more comprehensive and multifaceted input. Therefore, it would be better if they provided this justification for community involvement.

Ethiopia's rapid population increase has damaged the cities' greenery (Dubbale et al., 2010). Manpower shortages and severe financial constraints have made it difficult to manage and develop green spaces (Mpofu, 2013). In Addis Ababa, lack of political will is the main issue. Due to the city officials' lack of political will, beautification projects meant to be carried out on around 300 hectares of land to improve green spaces along Addis Ababa's main road have not been completed for some time (Mpofu, 2013). Gezaahegne Gebremeske (2014) asserts that weak institutions and low community and stakeholder involvement have an impact on the use and management of green spaces.

Generally, the objective of this research is to assess the green space use and management in Addis Ababa concerning its practice, altitude and behavior of community towards it, involvement of community and factors affecting it.

1.3 Objectives of the Research

1.3.1 General Objective

The overall objective of the research is to assess the use and management of green-space at different sites in Addis Ababa: condominium and government owned apartments.

1.3.2 Specific Objectives

1. To describe green space development practice at different sites in Addis Ababa.
2. To examine the attitudes and behaviors of community towards the use of green space.
3. To evaluate and compare the participation of the community in management of the green space at different sites.
4. To analyze factors affecting green space management at different sites.

1.4 Research Questions

The overall purpose of this research is to deliver the answer for the following inquiries that are basic to the development of urban green space in Addis Ababa.

1. How is the green-space development practice in Addis Ababa?
2. What is the community attitude and behavior towards use of green space at different sites?
3. How is the level of community participation in management of green-space at different sites?
4. What are factors affecting use and management of green-space at different sites?

1.5 Significance of the Study

The study expected to have the following contributions:

Since the Addis Ababa has embarked on modern city development, this study would assist the city government to understand the attitude, extent of engagement of community and challenges towards development of green spaces. This study would help the city government to come up with the better policy concern to green space use and management. The study also expected to play significance role in bridging the gaps in literature. Thus, this research would serve as the base for further future research works and academic debates on urban green space significances and challenges.

1.6 Scope of the Study

The study had portrayed the better of the interest if it would have been conducted at all condominium and apartment sites in Addis Ababa. However, the use and management of green space was confined at Nefas Silk Lafto sub-city, Jemmo condominium three and Kirkos sub-city, government owned apartments in Addis Ababa to make the study more practical. The choice of these sites was driven by the researcher based on their accessibility due to the fact that to obtain sufficient data.

1.7 Limitations of the Study

Lack of secondary data sources has impacted the interpretation of the result. There was the problem related to how and where to get documents connected to the problem. The limited access qualitative data from interviewees was also another shortcoming affected the interpretation of the result of the study. This is due to the time-consuming nature to obtain sufficient data from the interviewees.

1.8 Organization of the Research

Five chapters would make up the paper. The study's introduction, which was included in the first chapter, covered the study's background, problem statement, significance, scope and limitation of the study and organizational structure. The review of related literature was covered in the second chapter. The research design and methodology were covered in the third chapter. The presentation, interpretation, and data analysis were all included in the fourth chapter. The summary of findings, conclusions and recommendations were presented in the fifth chapter.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Theoretical literature review

2.1.1. Urban Green- spaces Conceptual Definition

The phrase "green space" is relatively new, and its roots can be found in the UK-based urban nature conservation movement and the European conception of green space planning (Swanwick et al., 2003). In urban planning, terms like open space and public open space are frequently used interchangeably with the meaning of the term "green space." These phrases are sometimes misused or used interchangeably. The following definitions, which apply to both developed and developing nations, have been proposed by various authors to help readers comprehend the differences between these terms and the significance of green space in urban planning practice. Public open spaces like parks and green spaces are key built environment elements within neighborhoods for encouraging physical activity behaviors (Koohsari et al., 2015).Open spaces play a key role in making complete urban functions, shaping a high accepted city image, creating better urban environment and passing down historic and cultural heritage (Wang and Gao,2012). Urban green spaces are all vegetated areas, including those with trees, shrubs, and grasses, according to Fam et al. (2008). These properties, which can be controlled or exploited by the public or the private sector, are generally made up of unsealed, permeable, "soft" surfaces including soils, grass, shrubs, forests, parks, gardens, wetlands, and trees, similar to how Dunnett et al. (2002) characterized urban green spaces.

Urban green spaces, as defined by Jim and Chen (2003), are exterior places with some vegetation and are typically found in semi-natural environments. Kit Campbell Associates (2001) defined urban green spaces as any vegetated land or building, water feature, or geological feature that can be found in urban settings. According to Baycan-Levent et al. (2002), urban green spaces are either publicly or privately accessible, highly vegetated urban regions that can be reached by people directly or through other methods. The network of all natural, semi-natural, and artificial biological systems found at all spatial scales within, surrounding, and between urban areas is referred to as urban green spaces. Cilliers (2013) uses the phrase in the context of developing countries, building on the works of Tzoulas et al. (2007) and Sandstrom (2002). According to

Yusof, an urban green space is any area or piece of land that is covered in plants or water within an urban setting (2012).

It may be concluded that both industrialized and developing countries have a general knowledge of what urban green spaces are despite the minor differences in the various definitions of green spaces. The main differences between the two environments was the existence of green vegetation, which is what is meant by urban green space and basically refers to any urban-spaces or lands that to some extent include some form of flora, either natural or artificial, and are available for human use. This perspective makes it very clear that the term "urban green space" refers to a far wider range of land cover types with vegetation on them, including forests, woodlands, urban trees, allotments, and many more. It is not just confined to parks and gardens (Haq, 2011).

2.1.2. Elinor Ostrom's concept of Commons in Urban Theorizing

2.1.2.1. Urban space as Commons

Urban space is highly regulated, some areas are designated for public access, and others are restricted for private use. There is a spectrum of different forms where different kinds of restrictions apply for entrance and use of a space. Of interest here are spaces where appropriators have a significant part of the management of a space and where there are forms of collective management but regardless of whether these are officially recognized or not. Perhaps the most intuitive example of an urban space as urban commons is a market place where different vendors contribute to the value of the marketplace but also have to agree on ways of solving collective management issues of the space. In the case of town market we expect that this is most often recognized and regulated by relevant authorities. Below we will discuss examples of urban commons that vary considerably in the degree that they are formalized, recognized as legitimate and in the extent of their openness. Mark Sproule- Jones recognized many years ago that that lack of effective monitoring, of public space often led to degradation. What had been a public good became a public bad (Sproule- Jones 1979) this could for instance take to form of some group monopolizing the space for their own use but detrimental to public interest. Owners of beachfront houses privatize access to beaches and gangs monopolize street corners. Foster generalizes this argument and posits that lack of effective monitoring of regulation, or 'regulatory slippage', is at the root of many modern attempts to implement collective management strategies (Foster 2011). Among her examples is the widespread phenomena of

Business Improvement Districts (BID) which exist in different forms across the US, Europe and Africa. In the US variety businesses within a designated area are given the right to tax themselves and collectively manage aspects of the common urban environment, typically sanitation and security issues (Hoyt 2004) but also aspects of general attractiveness. BIDs are not uncontroversial; there are issues of transparency and equity. The form of organizing urban space as a common though is widespread.

Lee and Webster (Lee, Webster 2006) argue for an increased privatization of urban space as a result of failed regulations and eroded public goods. Gated communities may be seen as the antithesis of a common, and indeed the prevalence of gated communities has been a rallying point for exploring alternatives to privatization (Foster 2011). Some authors such as Webster (Webster 2007) view privatization of larger areas of urban land as the creation of club goods that allows for greater entrepreneurship in the creation of urban space. In an interesting critique of this work Chen develops the argument that condominiums are not strictly club goods. Chen (Chen 2008) argues that condominiums can be seen as club goods on one level (easy excludability of outsiders, high subtract ability) but seen from the inside, among the members, the situation is more like one of common- pool resources (difficult excludability).Thus condominiums require an adequate collective management structure. The author discusses the interesting case of Chinese privatized housing and shows how governance is undermined by regulation of fees and interference with housing organization by the authorities. This makes it very difficult to organize adequate governance and the privatized housing, as a result quickly degrades.

Parks as public spaces are subject to degradation by overuse just as other public spaces. Municipalities often lack means and perhaps interest in maintaining them at levels that citizens may desire. Forms of co- production and cooperative management are therefore not unusual. (Delshammar 2005) found that most municipalities in Sweden practices some form participant management in their park facilities. Central Park in NY has had a substantial element of co-operative management since the 1920s. More recently the (Central Park) Conservancy, a non-profit, has taken over management of day- to- day maintenance and operation (Foster 2011).

Community gardens provide a further and important example of urban commons. Community gardens are developed by more or less well- organized neighborhood groups who simply begin

to cultivate the land on vacant lots. They seldom own the land; the sites have usually been abandoned by former property owners.

Management of a community gardens also demonstrate some of the differences between urban commons and traditional common- pool resources. A successful management of a community garden does not imply the need for a strictly bounded community of appropriators. Community gardens have many users and some of them, like young people from the surrounding neighborhood, are just visitors who do not contribute to the tending of the garden. They use the resource without taking part in the management of it (Saldivar- Tanaka, Laura &Community gardening is often much more than collectively growing produce on abandoned land, it is often much more about creating local social capital(Saldivar- Tanaka, Laura & Krasny ,Marianne, E. 2004, Foster 2006). The social capital generated in these efforts 'purchases' social goods such as increased safety, reduced crime rates and meaningful participation of youth. Establishment of community gardens has also been shown to result in a rise of property values (Voicu 2008).

Clapp and Meyer (Clapp, Meyer et al. 2000) have examined the conditions for large- scale development of brownfields and argue that there are reasons to believe that allowing some degree of collective management of these 'urban bads' might speed redevelopment and direct it to better serve those living proximate. While it is unclear to what extent this has been put in practice the idea resembles some aspects of the creation of community land trusts in the US notably the Dudley Street Neighborhood Initiative where a community was endowed with rights to manage land development in the area and has done so since the late 1980s.

Blomely relates a contested development in Vancouver (Blomely 2008) which set a group of homeless in conflict with real estate developers. The homeless used a declined block in central Vancouver as their gathering point. For the homeless people the vacant lots were an important common. For the developers it was something that needed to be transformed in order to increase the value of the area (Blomely 2008). This example of course serves to highlight the importance of how areas in the city are defined. An urban common is always an urban common for someone. An overgrown brownfield could be seen as something worthless – an urban wilderness but it could also be viewed as a part of an evolving urban green belt, which could supply ecosystem services and therefore should be, treated as an urban common. An understanding of what characterize urban commons must pay regard to this tension between ownership and multiple uses of land in cities.

2.1.2.2. Ecosystem Cervices as Urban Commons

People in cities are, whether they are aware of it or not, dependent on different ecosystem services that can be considered shared resources. Such ecosystem services could for instance be in the form of green areas or street trees that clean the air and regulate temperatures within the city, or lakes and rivers close to the city that receive and help to clean wastewater. These kinds of ecosystem services could be a result of deliberate management of green areas in the city (Barthel Colding et al. 2005) but they could also derive from 'urban wildernesses' like old industrial sites, brownfields or wasteland, which become overgrown, areas in between parts of the city, neglected parks or abandoned redevelopment areas. This may not be used by the public but offers important ecosystem services, which could be viewed as an urban common good (Jorgenson, Tylecote 2007).

Economic and socio- cultural changes in urban areas also impact on the surrounding ecosystem and the services they provide. In their study of the use of an urban common in the form of a natural stream close to the city, Stave and Armijo, (Stave, Armijo 2000) describe both use of different management initiatives as a feed- back loop. People in the urban area surrounding the stream channel use both the channel and the area around it for many different purposes, from recreation to illegal trash dumping.

Groups who use the area for recreation saw the increasing illegal dumping as degradation of the common, and regularly organized voluntary clean- up actions. This is an example of how initiative for collective management of urban commons is dependent on how different users perceive the qualities of the common, and degradation of these qualities. In the case of the Las Vegas Wash,over 20 local, regional and federal entities, as well as local businesses and residents, have interests in the Las Vegas Wash ecosystem, each identifying different system characteristics as desirable and different management issues as problematic. In this case, voluntary groups step in and take responsibility for keeping the common clean and valuable for recreation (Stave, Armijo 2000) .This also illustrates the challenge of managing an urban common with a diversity of users.

Another example is the management of the National Urban Park in Stockholm. A recent survey identified 69 local user and interest groups currently involved in management of the park area. Of these, 25 are local stewardship associations that have a direct role in managing habitats within

the park that sustain aspects such as recreational landscapes, seed dispersal, and pollination. The diversity of different interest groups involved in the National Urban Park serves to highlight not only managerial challenges but also the challenge of sufficient knowledge for valuing these kinds of common resources. The analysis of the survey identified a need of better coordination and dialog between different users in order to avoid conflicts (Barthel, Colding et al. 2005).

Another challenge when it comes to managing urban commons which provide ecosystem services is the miss- match of scales. An analysis of the collective management of five green areas in and nearby Stockholm shows a miss- match of scales at three levels: time, space and function. Ecosystem services are developed during a long time, and when they are affected it often takes time to restore them. The administrative boundaries seldom follow the boundaries of ecosystem, and often many different agencies are responsible for or have different interests in the same ecosystem. Sometimes, the agencies responsible for managing the commons lack sufficient knowledge about the ecosystem services provided by different green areas. Therefore, increasing knowledge among different appropriators could be seen as one condition for a successful collective management of these kinds of urban commons (Borgström, Elmqvistet al. 2006).

Even the well- developed urban landscape could lodge natural resources, like birds, flowers and other kinds of species that form ecosystems that the city could benefit from. One example of this is street trees. Street trees have an important role of creating a healthy environment in a city. There is however an ongoing loss of street tress in American cities, mainly because single trees are not understood as an urban common resource which could provide valuable ecosystem services. Here, knowledge about the role of street trees could be seen as one condition for developing a common understanding for the need for collective management. This is in also an example of the problem of mismatching scales. Cutting down a couple of trees in order to develop a block is not a problem. But when the tree cover in Washington DC has declined by 50%, there is a problem. It is also illustrates institutional constraints, because no one has an overall responsibility for managing all single street trees (Steed, Fischer 2008).

As mentioned above, increasing the knowledge about the need of ecosystem services and which areas in the city that provides them, could clear the way for collective management of those. This could be done by engage different groups in collective knowledge production – so called citizen science. This is a general term for strategies where citizens helps researcher with monitoring and

collecting data. Participants in citizen science projects related to ecology often develop an interest in conservation issues (Cooper, Dickinson et al. 2007). Thus citizens help science but may learn as part of the process to value aspects of the environment.

In sum, there are interesting examples of ecosystem services as urban common but many struggle to meet formidable challenges in that the value of these commons are highly indirect, that sufficient knowledge might often be lacking and difficulties in relating to administrative structures created for other purposes. It is not clear that there is the capability of managing them as a common resource.

2.1.3. The Use of Urban Green- space

Numerous studies have demonstrated the practical benefits urban green space gives to promote the development of cities. These articles address a variety of urban development issues, including social, economic, and environmental concerns. To offer the current study with a better theoretical framework on the relevance of green space in sustainable urban planning, a thorough analysis of these contributions is presented here. This is done to show how important urban green space is to the sustainable growth of cities, as well as to offer a good understanding of how the loss of this area might impede that sustainable growth.

2.1.3.1. Social Contributions of Green- space

The literature has placed a heavy emphasis on leisure and recreation as the key social contributions of green space to urban development in both developed and developing nations. Haq (2011) described green space as a significant resource for leisure and numerous outdoor recreational activities in urban environments, basing on his results from the UK, Finland, and Mexico. Manlun (2003) discovered that the majority of middle- and low-income people in both developed and developing countries travel to urban green spaces like parks and gardens to socialize and spend their time relaxing. Additionally, he pointed out that the majority of people in developing nations frequently gather in urban parks and gardens, where some play games, some go on walks, and still others just observe the surroundings.

In addition to providing opportunities for recreation, research indicated that urban green areas are essential for kids' growth. Children who spend a lot of time in urban green areas have the chance to get up close and personal with nature, which helps them learn more about it, develop a feeling of responsibility for the environment, and, in the long run, learn to love and appreciate it

(Lowman, 2006). Children who play in parks and other green places readily develop their bodily strength, coordination, language, cognitive thinking, and reasoning skills, according to research by the Association for Childhood Education International (Isenberg & Quisenberry, 2002). It has further been observed that children's interaction with the natural environment, especially urban green spaces, help them to have a good opportunity to enhance their analytical and strategic thinking and improve their cognitive development (Cornell et al., 2001). Further research has shown that children's connection with the natural world, particularly urban green spaces, gives them a fantastic opportunity to develop their analytical and strategic thinking as well as their cognitive development (Cornell et al., 2001).

The role that green spaces play in enhancing urban people' health has also been highlighted. The benefits result from frequent exposure to green areas, from enhanced mental health and psychological well-being (Ernstson, 2012), from reducing stress (Woo et al., 2009), and from treating childhood mental illnesses like Attention Deficit Hyperactivity Disorder. In order to combat the obesity issue and avoid diseases like cardiovascular disease, musculoskeletal diseases, stroke, and cancer, it has been shown that urban green areas can be used for physical activities like walking, running, playing football, and other sports (CJC Consulting, 2005). The use of parks by the elderly for physical activities by them helps to keep them fit, relieves them of various chronic ailments linked with old age, and extends their lifespan in general, according to studies on the elderly in northern England, Tokyo, and several other megacities throughout the world (Takano et al., 2003).

Access to green places has also been found to significantly improve social inclusion, cohesion, and interaction. According to a study conducted in Los Angeles by Cohen et al. (2008), there is a link between community parks and residents' capacity for constructive interaction. Additionally, some persons, like the elderly, the disabled, and the young, are frequently excluded from certain social events in their community. Urban green spaces like community gardens and parks offer a venue for people from all backgrounds, including the excluded, to interact and have fun together (Fan et al., 2011). This supports social inclusion and unity.

Another area where the value of urban green spaces is appreciated is in national heritage and culture. The Urban Green Space Taskforce (2002) asserts that certain urban green spaces offer locations for holding a variety of national and cultural rituals, including regional festivals, public celebrations, and other cultural activities. Furthermore, urban green spaces occasionally house

historical and cultural items like graveyards, monuments, fountains, and exotic pavilions that support the preservation of culture and national history (BOP Consulting, 2012). In short, green spaces provide a variety of social benefits, including leisure and recreation, improved health, support for children's development, increased social interaction, and preservation of national heritage, all of which contribute to the growth of urban areas in both developed and developing nations.

2.1.3.2. Environmental Contributions of Green spaces

Numerous green spaces are discovered to help reduce the effects of climate change and its related issues, which are still top of mind in global talks. It has been noted that green spaces help to control the local metropolitan climate (Fam et al., 2008).Urban heat islands are caused by the abundance of hard surfaces in urban areas, such as asphalt, pavements, and other concrete surfaces, which have a tendency to absorb solar radiation easily but release it slowly, back into the atmosphere. As a result, urban areas heat up quickly. Numerous urban green spaces help to increase evapotranspiration and the reflection of solar radiation from the land surface, which lowers urban temperatures and consequently modifies the climate in these areas (Konijnendijk et al., 2013). Similar findings from studies by Alexandri and Jones (2008) showed that urban green spaces help to reduce urban heat islands' impact and further improve the comfort of city dwellers. According to research by Kottmeier et al. (2007), urban green spaces regulate and cool air and temperature exchange, which enhances the urban climate. Another environmental benefit of urban green spaces is improved urban air quality, which is well accepted (Konijnendijk et al., 2013). According to a study, sulphur dioxide and nitrous oxide levels have significantly decreased in Ottawa and Singapore, where the majority of buildings have greenery on their rooftops (Getter & Rowe, 2006). Numerous urban trees have been found to improve urban air quality by removing some air pollutants like carbon monoxide, nitrogen oxide, and sulfide from the environment (Nowak et al., 2006). This demonstrates how having lots of urban trees (green spaces) can stop some pollutants in their tracks, hence reducing the amount of air pollution in cities.

In addition, the literature on the preservation of the natural environment makes clear how urban green areas support biodiversity (both plants and animals). Numerous studies on the urban environment have shown that various types of urban green spaces contain significant amounts of biodiversity (Alvey, 2006). According to a UK study, golf courses have a substantial number of

tree species and a wide variety of bird species (Tanner &Gange, 2005). This contribution is connected to the utilization of green spaces to reduce some urban environmental problems, such soil erosion. Studies have demonstrated that the presence of various urban green spaces, such as urban trees, forests, golf courses, parks, and gardens, aids in stabilizing urban soils, lessens the effects of erosive forces like wind and water, and eventually protects urban areas from harmful erosion (Zhou & Shangguan, 2007).

Urban green spaces contribute to the aesthetic appeal of urban design and the urban environment as a whole. Manlun (2003) emphasizes how the many forms and patterns of greenery enhance urban design and enhance the beauty of the landscape. Green spaces boost urban aesthetic quality, which makes cities more uniform and well-diversified in addition to adding beauty to the architecture (Manlun, 2003). Green spaces, according to Baycan-Levent and Nijkamp (2009), are crucial when planning towns and cities because they assist to strengthen their identity, which can increase the cities' appeal as locations to live, work, invest in, and visit.

Given the numerous environmental benefits provided by green spaces, it can be concluded that these benefits aid in resolving a number of urban environmental issues that impact both developed and developing nations. As a result, giving green spaces a lot of attention in a particular city will unavoidably aid in resolving some environmental issues.

2.1.3.3. Economic Contributions of Green spaces

Economically speaking, because urban greening initiatives frequently involve labor-intensive construction and high maintenance tasks, they give many people in both developed and developing nations both temporary jobs (soil preparation, planting, etc.) as well as more long-term positions (maintenance, management, etc.). These job opportunities are crucial for developing nations since they aid in lowering the high unemployment rate that many of them are now experiencing. In a 2012 study conducted in Africa, Djibril et al. discovered that the department in charge of overseeing urban green spaces in Abidjan hired hundreds of individuals in a variety of positions to work on green spaces. Additionally, it is predicted that various activities on urban green areas in Australia will create employment chances for 80,000 individuals (Aldous, 2005).Over 50,000 people are directly employed in public parks and gardens in the UK, according to a research by Blue Sky Green Space (2011), and many more work in fields related to green spaces, such as those that produce items and equipment for parks.

Another significant economic benefit of green spaces to urban development is raising property values (Lutzenhiser & Netusil, 2001). The results of a study in Dutch cities like Emmen, Appledoorn, and Leiden showed that homes located near parks have higher property values than those located far from natural parks (Luttik, 2000). It was discovered that these high property values helped to support various government programs by increasing tax income.

2.1.4. Green spaces and Sustainable Urban Development

The relationship between green spaces and sustainable development is strongly influenced by the environmental pillar of sustainability, which is concerned specifically with the preservation of the natural environment, of which green spaces are essential elements. The environmental, social, and economic pillars of sustainable development are all interconnected, and as a result, the results of these links also affect the social and economic pillars. These connections are vividly shown by the ideas of environmental sustainability and environmental justice, which are described below. This discussion is necessary to demonstrate the strong connections between urban green spaces and sustainable urban development in the context of the developing world, particularly Africa, as well as the various strategies that can be used to protect urban green spaces from the region's problem of rapid depletion. Green spaces and environmental sustainability related with the preservation of the natural environment is a component of environmental sustainability, as defined under the broad definition of sustainable development. It is described by Sutton (2004) as being able to preserve aspects of the physical environment that are important, such as biodiversity and climate (natural and biological environments).

2.1.5. Urban Green space Management

According to Janson's green space management theory, successful green space management can be accomplished at the management level through participatory contact with the local population. Organizations and actors are issues that the management is also interested in. Additionally, it has conversations with users about various topics. The full spectrum of work is operational, including maintaining the vegetation and putting helpful devices in the green places.

The concept of managing urban green spaces sustainably links community involvement with institutions tasked with looking after green areas and an efficient governing framework. Keough and Blahna (2005) assert that it is crucial for effective ecosystem management. They contend that community inclusion in the management process is crucial for achieving balanced integrated

economic, social, and ecological goals. It is crucial to empower stakeholders in order to make decisions based on a consensus approach that considers all stakeholders' points of view. Public participation which respect in the governance context encompasses the framework, regulations, partnerships, and procedures that influence decisions concerning green space (Molin and Konijnendijk, 2014). Collaboration of stakeholders and other sectors can help urban green space interventions to be more effective (WHO Regional Office for Europe, 2017). Multisectral collaboration (including, for example, environment, transport, health, social affairs, police and so on) can help to maximize urban green space benefits and prevent unintended negative impacts. Partnerships with local businesses and organizations can help to fund the establishment of new urban green spaces (especially on private land) and support maintenance. Collaboration with environmental experts, academic institutes and research centers aids effective planning, monitoring and evaluation of urban within local authorities, urban green spaces should be considered across regional and local planning processes to achieve a higher impact.

2.1.6. Policy and Strategy of Green space Design

To create and manage urban green spaces, policy and planning are absolutely essential. As a result, different policies and strategies are used by different nations when constructing green spaces. Some cities, according to Mpofu (2013), have created master plans and initiatives to conserve their green spaces. Houses are set back from roadways by several meters of bushes and trees, with streets itself being bordered with trees. The idea of equal access and distribution is the basis of the majority of green area management methods. Some gravel pits and garbage disposal sites have been repaired using trees, adding to the amount of green space in metropolitan areas.
It also emphasizes partnerships and networking between local neighborhoods, residential groups, companies and other organizations, in developing and improving residential open spaces or rejuvenating former industrial areas and other problematic areas. This approach ensures sustainable development by taking care of the three pillars of development, namely, ecological, social and economic aspects of the city.

Other master plans may concentrate on distribution and usability of green areas around a particular city or town. For example, the City of Zurich, Switzerland, aims at creating a certain number of green spaces per resident for recreation and sport respectively.

The green areas may also be used for the protection of water catchments and fragile areas as well as for the rehabilitation of unpleasant areas like landfills. For example, the Bayrampasa Urban Park, a former landfill in Istanbul, Turkey, has been transformed into an urban park to provide recreation facilities in a densely populated area. The Park includes like amphi-theatre.

2.1.7. Perception and Attitude of Community towards Green spaces Use and Management

Urban green spaces serve a variety of social, economic, and ecological functions, such as therapeutic advantages, a desirable environment for rearing children, social integration, conservation easements, and the possibility for community growth (Hague and Siegel, 2002). According to Simonsen and Robbins (2000), planners are becoming more aware that people value green spaces more for non-market factors such as the desire to enhance community life, environmental protection, involvement in decisions that will affect their lives, concern for social conditions, need for satisfaction with their surroundings, and pride in leaving a legacy for future generations.

In fact, residents are calling for a bigger say in the planning and decisions affecting the green spaces in their neighborhoods. The exploration of the various dimensions connected to values and attitudes is what drives these requests. In their study, McFarlane and Boxall (2000) discovered that knowledge, social influences, and socioeconomic factors had no effect on attitude. However, it was found that attitudes were substantially correlated with forest values what individuals believed to be true about forests. This study provided evidence that human traits that affect personal values must be taken into account when measuring attitudes. The value-attitude connection has been supported by several published investigations in various circumstances (Gotmark et al., 2000). According to the general view, a wide range of factors influence attitude, and environmental attitude research helps by presenting lists of potential elements that may be tested in novel scenarios to investigate their effects on attitude. Through the use of a semi-structured survey, Lakhan and Lavalle (2002) sought to identify important factors impacting environmental concern. Analyzing categorical data revealed that age and education were important determinants according to the authors. However, there was no support for gender or residence. Age and education were found to be significant in another study on environmental attitudes, but not gender or marital status (Kasapoglu and Ecevit, 2002). As a

result, some studies contend that attitude is context-dependent and that reliable measurement requires local study.

2.1.8. Community Participation in Green space

Management Community participation in the planning, design and maintenance of urban green spaces is important to assure that local needs are met (WHO Regional Office for Europe, 2017). Planning for people is planning with people – the community should be involved from the beginning to create urban green spaces that match the needs of local residents. Sufficient time and funding should be arranged to facilitate community engagement in the planning phase. Active involvement of local residents in building urban green spaces increases their identification with and use of the space.

Green space management, according to Janson (2012), can be thought of as the actions taken by management actors to maintain the expansion of urban green spaces. The author continued by stating that management is not only concerned with tasks at the operational level of work, but it also covers technological, biological, and human relations components, particularly cooperation and communication. Strategic, tactical, and operational activities are the three levels of activities that management as an activity is concerned with. The activity at the strategic level involves allocating the necessary resources, formulating objectives and setting targets, as well as establishing deadlines for activities to be completed at the operational level after that. In the tactical level, the strategic and operational levels are brought together. Management encompasses both strategic and operational level, while maintenance is more limited to technical level. The management level, through a participatory communication with the local community, effective green space management can be achieved.

2.1.9. Factors Affecting the Development and Management of Urban Green spaces

It was discovered that a number of issues have a detrimental impact on the creation and administration of green areas in Africa. These difficulties have often been divided into three categories for the sake of clarity and simplicity. These include the strain of urbanization, the inadequate application of urban planning laws, and economical and political difficulties.

2.1.9.1. Pressure of Urbanization

Rapid urbanization has been identified as the main issue contributing to the decline of urban green spaces in Africa (Fuwape & Onyekwelu, 2011). This region is home to Lagos, Nigeria, and Cairo, Egypt, two of the world's most populated cities. Over one billion people reside in Africa, with close to 50% of them residing in urban settings, according to UN Habitat's 2010 State of African Cities Report (UN Habitat, 2010). The report's data on the extent of urbanization and its negative impacts in Africa were horrifying. For instance, the total urban population in West Africa, which includes Togo, Cote D'lvoire, and Liberia, was 137.2 million in 2010 compared to just 6.6 million in 1950. The overall number of urban residents in West Africa is expected to reach 427.7 million by 2050.East Africa's urban population grew from 6 million in 1960 to around 77 million in 2010. Southern and northern Africa saw similar conditions. Nearly 60% of the population of Southern Africa, which includes the Republic of South Africa, Zimbabwe, Zambia, and other countries, lives in urban areas, making it the most urbanized region in all of Africa. In a similar vein, metropolitan regions are also home to more than half of the population in northern Africa. It was discovered that the growing urbanization of Africa had caused significant degradation of the urban natural environment, such as green spaces (Fuwape & Onyekwelu, 2011).

The effects of growing urbanization on the growth of green spaces in Addis Ababa, the capital city of Ethiopia, are concerning. Due to the city's rapid population increase, the majority of urban trees, including both exotic and native species, that were planted to improve the city's greenery and safeguard the environment, have been killed or deteriorated (Dubbale et al., 2010). Because the majority of the urban trees were cut down for construction, Addis Ababa’s green vegetation presently only covers 14.6% of the total land area (Dubbale et al., 2010). In addition, due to urban growth and infrastructure improvements, rapid urbanization has resulted in the significant loss of urban green space in many West African towns (Fuwape & Onyekwelu, 2011). In a related trend, a study on urban sprawl and its impact on the natural vegetation cover in Abuja (Nigeria's capital city) revealed a sizable loss of the natural vegetation due to the spread of human settlements (Fanan et al., 2011). In particular, the study showed that in 2001, built-up regions made up 31% of Abuja's total land area, while wild vegetation made up 21%. However, in 2006, the percentage of built-up areas rose to 43%, while the percentage of natural vegetation

(green spaces) shrank to 12%. This was related to increase urban sprawl, which was done to slow the city's rapid population expansion.

2.1.9.2. Insufficient operation of Urban planning Regulations

In Africa, established policies that are typically imposed by the central government considered urban development. It was observed that a lot of African countries have land planning rules that target green areas, but their execution was challenging. Urban planning restrictions on green spaces in Africa have been shown to operate ineffectively due to a number of factors, including the bureaucratic processes involved in awarding development licenses and the weakness of planning institutions or organizations due to a lack of resources (Muderere, 2011). The failure of various urban planning strategies in developing Africa to take into consideration the most recent urban development trends is the cause of their inefficiency.

It was found that some of the urban planning rules currently in force in a number of Sub-Saharan African countries were developed some 60 years ago in imitation of those of their previous colonial masters, the British, French, and Germans (Awuah et al., 2010).Additionally, to govern metropolitan areas, the bulk of African countries rely far too heavily on master plans. The master plan shows the proposed urban form's future vision on a map (UN Habitat, 2009). The overwhelming loss of green space, for example, is a brand-new problem resulting from Africa's urbanization that cannot be addressed by these master plans. This is because most of these master plans are outdated and restrictive, and local citizens and other important stakeholders were not included in their creation. Abuja's physical development is still based on a master plan that was developed in the 1970s, according to a UN Habitat evaluation from 2009. The investigation also discovered that the 1944 master plan for Accra, which was modified in 1957, and Doxiadis' 1968 master plan for Lusaka are still in use. New construction patterns have made it challenging for these master plans to effectively direct the development of these cities, which has resulted in a considerable invasion of many open spaces.

It was found that the expansion of urban green space in Africa was impacted by delays in the awarding of development licenses by planning authorities and the associated bureaucratic procedures. It takes the planning authorities about four years to approve all of a developer's land documentation, including their comprehensive plans and building permission (Kironde, 2006). In a manner similar to this, Egbu et al, (2008)’s research in Nigeria found that lengthy bureaucratic procedures must be followed in order to secure the documentation needed to proceed with any

land development. A person must go through around thirty-two steps in order to receive the available land records, and this procedure could take a year or more. Furthermore, it has been observed that the bureaucratic processes in Ghana and Cameroun for requesting development permits from planning bodies are lengthy. It was shown that collecting land titles and associated development documentation takes, respectively, about two years and between two and seven years in Ghana and Cameroun (Awuah et al., 2010). All these drawn-out procedures prompted developers and other individuals in metropolitan areas to bypass the required planning formalities and begin unlawful land developments. As a result, green space spaces have been significantly encroached upon by private developers' land for residential and commercial uses in a number of urban regions.

Misuse of government funding meant for socioeconomic improvement, such as programs on green spaces, has been noted as a problem preventing the successful development of green spaces in Africa (Opkala, 2009). Theft of cash became a major issue in Harare, Zimbabwe's capital, posing a threat to the preservation of fragile natural areas (green spaces) and their integration into the city's overall architecture and plan (Muderere, 2011). Although donor organizations had provided some financing for ecological zones (green spaces) to be included in Harare City's plan, it was determined that the funds had been transferred or had been embezzled by some government personnel, halting the project (Muderere, 2011).

The problem of poor operation of urban planning regulations in Africa was made worse by the lack of enforcement of land planning criteria for green spaces. It was concluded that this problem was brought about by a shortage of skilled workers, poor logistics, financial constraints, political influence, and a lack of collaboration between planning agencies. Urban parks in Addis Ababa are under risk due to a lack of collaboration on the subject of green spaces between government agencies, for-profit companies, and non-governmental organizations (Mpofu, 2013). In several West African countries, coordination and collaboration between governmental and private entities on green spaces was also found to be lacking (Fuwape & Onyekwelu, 2011). Decisions are usually taken without the involvement of the business sector because the majority of city governments in West Africa do not see private organizations as key partners in green areas. A lack of cooperation between the city's many planning authorities has been blamed for the destruction of green areas in Harare, and this lack of communication between the institutions was the cause of the problem. The operations of the Harare city authorities were found to be

frequently impacted by political meddling, particularly when it comes to taking the necessary measures against individuals who intrude upon green space lands.

The lack of political will to carry out projects involving green spaces is a significant problem. In many African cities, there was a lack of political will among decision-makers to put policies or efforts to support the development of urban green zones into reality. A factor analysis was conducted to identify the variables degrading green spaces in Lagos city, and one of the key contributing factors was the lack of political will on the side of the planning authorities to enforce policies on green spaces (Olaleye et al., 2013).

The problem of a lack of political will was also quite troublesome in Addis Ababa (Ethiopia). The city officials' lack of political will has prevented them for some time from completing beautifying projects intended to be carried out on around 300 hectares of land to enhance the green spaces along Addis Ababa's main roadways (Mpofu, 2013). Further investigation into the lax enforcement of planning regulations on green spaces in that continent revealed that the lack of qualified skilled personnel, low staff strength, financial constraints, and a lack of logistics were the main concerns for the majority of institutions on green spaces in Africa. These issues were among the most significant ones found in Addis Ababa, where those in charge of the green spaces faced severe manpower and financial limitations according to the author.

Unqualified staff and ineffective administrative procedures also hindered the agency in charge of Abidjan's Parks and Gardens (Djibril et al, 2012). The government organization in charge of constructing and maintaining green spaces in Ghana, the Department of Parks and Gardens, was found to be in desperate need of financing for its anticipated activities as well as staff that was chronically understaffed and lacked basic supplies (Modern Ghana, 2006). It is difficult for many groups in Africa striving to protect green spaces to have policies in place that will strictly enforce the laws governing them.

2.1.9.3. Socio-Economic and Political Factors

It was discovered that one of the main causes of Africa's loss of green space was poverty. According to the 2010 State of African Cities Report, as of 2003, over 47% of urban residents in Benin and 57% of those in Burkina Faso made less than $1 per day. About 66 percent and 65 percent of urban residents in Niger and Nigeria, respectively, lived on less than $1 per day. Additionally, it was discovered that in 2006, 30% of Ghana's urban residents made less than $1 per day. As many of the poor have a tendency to rely too heavily on the green environment for

their existence, the report related urban poverty's high rate to Africa's declining green environment (UN Habitat, 2010). Similar conclusions were drawn from a study on South Africa, which discovered that many impoverished communities heavily depend on the environment for additional revenue or to enhance their standard of living (Cilliers et al., 2013). As a result, the poor in many African metropolitan areas have destroyed large amounts of green space to meet their demands. The spread of green areas has been hampered by the lack of importance assigned to them in some African towns' development agendas. Many African nations were found not to include green areas among their top objectives. Many African countries place a high priority on reducing poverty and providing social services like homes, hospitals, schools, and piped water. Due to this, local and national governments have been less inclined to prioritize and allocate the necessary resources for the establishment and upkeep of green spaces. Bolnick et al. (2006) reiterated this by pointing out that in Africa; a brown agenda receives a lot of attention at the expense of a green agenda that focuses on protecting the environment.

According to Lugoe's (2008) observations, urban land-use projects involving green spaces in Tanzania have been poorly implemented due to the low priority accorded to them. In Kisumu, the third-largest city in Kenya, it was discovered that many urban parks had not gotten attention for a long time due to the low priority given to green spaces, leaving most of the parks devoid of basic amenities like chairs, restrooms, notice boards, and playground equipment for kids (Rabare et al., 2009). The low priority to green spaces was found to have resulted in many city authorities not providing good security on urban parks to enhance the safety of park visitors. In Kenya, some urban parks were found to be used by drug peddlers and often criminals with no security guards to keep the place safe for users (Rabare et al., 2009).

The Kumasi Children’s Park in Ghana is no go area for many residents of Kumasi because the place has been taken over by criminals with a whole lot of criminal activities taking place on the park especially at night. A study by Taylor (2010) confirmed this when poor security on the Kumasi Children’s Park was found as a major factor hindering the usage of the park. It was discovered that many local authorities did not provide adequate protection in urban parks to increase the safety of park visitors as a result of the low priority given to green areas. Some urban parks in Kenya were discovered to be frequented by drug dealers and other criminals without any security personnel to keep users safe (Rabare et al., 2009). Many Kumasi people avoid the Kumasi Children's Park in Ghana because it has been taken over by criminals and are

the scene of numerous criminal acts, especially at night. When inadequate security at the Kumasi Children's Park was identified as a significant barrier to use of the park, a research by Taylor corroborated this. Many people are deterred from utilizing public parks as a result of the situation in several African parks. Urban dwellers' reluctance to collaborate was shown to be a substantial obstacle to maintaining green spaces. This was shown to be caused by a lack of local involvement in managing green spaces and a lack of understanding of the benefits of green spaces (Muhumuza & Balkwill, 2013).

Uncooperative attitudes of urban dwellers towards the management of green spaces also came out as a predominant challenge. This was found to be the result of lack of involvement of the local people in green space management and poor awareness of the local people on the benefits of green spaces (Muhumuza & Balkwill, 2013), for example, decisions on green spaces in many southern African countries were found to be undertaken mostly by city planning authorities without active involvement of the local people (SADC, 2006). The local population in various regions of Zambia, Cameroon, and Benin was not contacted or involved in the management of parks in their communities, according to a study by Muhumuza & Balkwill (2013). The majorities of locals perceive the protection of green spaces as the sole responsibility of the planning authorities and do not take good care of these spaces in their neighborhoods as a result of the poor involvement of the local people and their poor awareness of the benefits of green spaces (Djibril et al., 2012). In cities like Freetown (Sierra Leone), Ibadan, Kaduna, Lagos (Nigeria), Kumasi, and Accra (Ghana), these have led to the indiscriminate destruction of green spaces by the local population and the turning of some areas of many parks into garbage dumps (Fuwape & Onyekwelu, 2011).

A fundamental economic and political challenge was political instability. In the past 20 years, civil wars have broken out in a number of African countries. It cannot be overstated how negatively these civil wars have affected both urban growth and green spaces. For instance, major portions of the urban and natural landscape were destroyed during the nation's ten-year civil war in areas like Bunchanan (UNEP, 2004). Numerous city trees perished in the Somalian civil war. Cross-bombardments were utilized in the major urban areas of the war, including Hargeisa, Borama, Berbera, and Erigavo, to entirely destroy both native and foreign trees (Candlelight for Health, Education & Environment, 2006). In addition, Rwanda's civil conflict in the 1990s caused significant damage to the country's urban green spaces. It was believed that the

Rwandan civil war destroyed over 50% of the Gishwati forest, a large portion of the Mukura forest, and around 70% of the Akagera National Park (Plumptre et al., 2001).

The growth of urban green spaces in Africa as a whole has been shown to be constrained by a number of issues. These issues include urbanization, a lack of funding for organizations in charge of maintaining green spaces, a lack of priority given to maintaining green spaces, the impact of poverty and corruption, uncooperative locals, and political instability.

2.2. Empirical Literature Review

Urban Green Spaces in Africa: Nature and Challenges was a research by Collins Adjei Mensah (2014). The goal of the study was to provide a thorough analysis of the causes of the degradation and inadequate management of urban green spaces in Africa. The paper modified the systematic review methodology and drew from publications that were devoted to or concerned with urban green spaces in the sub-region of Africa. Accordingly, the issues impeding the development of green spaces in Africa included quick urbanization, a lack of institutional resources dedicated to green spaces, a lack of priority given to green spaces, corruption, a lack of cooperative local attitudes, and political instability. According to the report, the development of green areas should be one of the top priorities for urban planning.

In his 2014 study, "Status of Green Spaces and Green Space Participatory Management in the City of Addis Ababa," Gezahegne Gebremeskel examined issues with green space development brought on by ineffective government institutions. Therefore, the study shows that in the context of Addis Ababa city, the primary causal factors for dysfunction are poor community involvement, especially dialog and linkage among those organizations mandated to steward Green spaces, constraints in resources like skilled geospatial, arboreal, and landscape professionals, poor digital facilities, lack of database, and networking to generate and share spatial and non-spatial information.

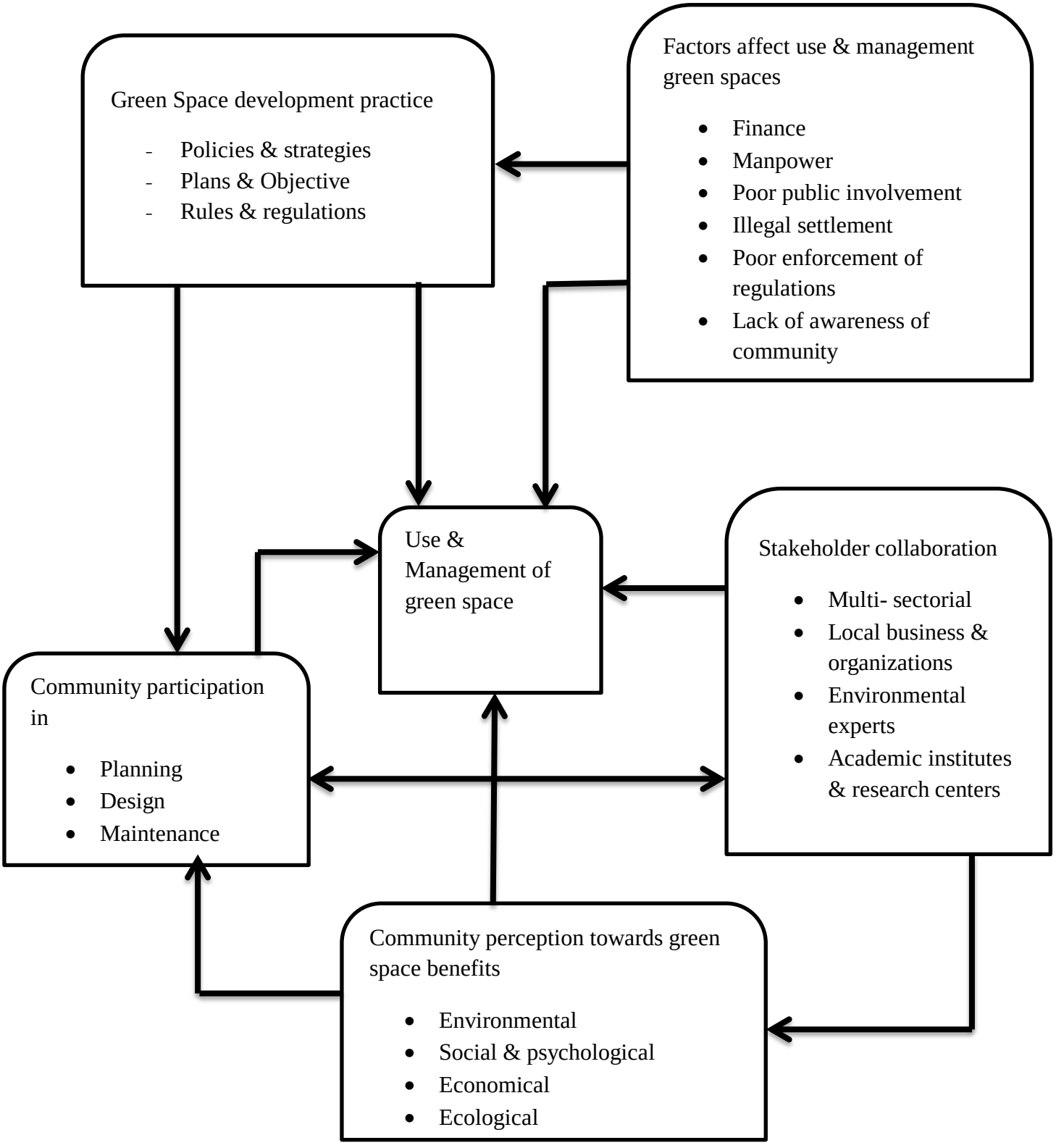
In the Western Gojjam zone of the Amhara region, in the Fenote-Selam city, Ababa Anagaw (2009) carried out a research titled "Analysis of the Development and administration of Green Areas in Fenote-Selam City." The study's major goal was to evaluate the city's system for developing green spaces, as well as its development barriers and causes of the low degree of public awareness of these spaces. Because green area compounds for government organizations, people, and schools were not included in the city's development plan, the study demonstrates that

a number of stakeholders have created their own green spaces. The city's low level of sector development was caused by a number of issues. The area's underdevelopment is mostly a result of the attention it receives from officials and people. The author suggests integrating with stakeholders for development engagement and promoting awareness through various channels. Furthermore, the author made a compelling case for the need for city authorities to be knowledgeable about urbanization, sustainable cities, and building sustainable communities. Environmental challenges of urbanization:

A case study for open green space management was the topic of a 2013 study by Thomas P. Z. Mpofu. The study's goal was to assess the successes and difficulties faced in maintaining the City's open green spaces by the Addis Ababa Sanitation, Beautification, and Park Development Agency. Environmental issues have been linked to Ethiopia's urbanization phenomenon in major cities, including Addis Ababa. Urban sprawl, liquid and solid waste management, water, air, and noise pollution, unauthorized settlements, and the deterioration of open green spaces are a few of the issues. According to the author, open green spaces in particular are under a lot of stress, endangering their ability to continue performing fundamental ecological, social, and economic tasks. According to the report, the Agency was successful in producing proclamations and manuals and creating a framework for collaboration in the use and management of open spaces. But the survey also revealed that the Agency was struggling with a number of issues, including a lack of workers, inefficient use of financial resources, a lack of land rights, and the inability to enforce laws and regulations, among others.

2.3. Research Conceptual Framework

This study argued that green space use and management is the result of government policies and strategies, community perception and their involvement and factors that hindered its development as well as collaboration of various stakeholders. Therefore, based on the theoretical and empirical in depth review and synthesis, the following research conceptual framework was developed to provide a practical guide to the research endeavor. The following figure depicts the conceptual frame work of the study.



Use & management of green spaces
Figure 1: Study conceptual framework
Source: Researcher own constructs

CHAPTER THREE

RESEARCH METHODOLOGY

3. Description of the Study area

3.1.1. Location

Ethiopia's capital city, Addis Ababa, also acts as the nation's political, economic, and cultural hub. It is located at 9° 1' N latitude and 38° 44' E longitude. Addis Ababa, Ethiopia's sprawling capital lies in the high lands bordering rift valley and situated at the foothill of Entoto Mountains.

3.1.2. Population

United Nations population forecasts for 2022 indicate that Addis Ababa has 5228,000 residents, growing at a rate of 4.43%. This population lives in the total area of 527 km2 and a population density of 9920 people per km2, serves 30% of the country's urban population in one of the continent's fastest-growing cities. High unemployment rates, a concentration of slums, and inadequate housing, infrastructure, and sanitary development define the city.

3.1.3. Climate

At a height of 2355 m, Addis Ababa is situated between the 2300 and 3300 m altitude ranges. As a result, the city has a subtropical highland climate with monthly variations in precipitation. In the city, the summers are significantly rainier than the winters, and the temperature is pleasant and temperate. The city experiences precipitation at an average rate of 1165 mm and an average temperature of 17^{o}C.

3.1.4. Land use

Addis Ababa’s rapid population increase necessitates additional socioeconomic requirements. As a result, the city grows to encompass peri-urban area. This led to a significant conversion of farmland to urban areas. Prior research by (Hany 2018), focused on the expansion of built-up areas of Addis Ababa city into peri-urban areas. The main contributors to changes in land use, land cover, and deforestation in the city are understood to be horizontal settlement growth and infrastructure development.

3.1.5. Infrastructure

The city of Addis Ababa has seen the fastest population rise. With this rising population growth, there has been an increase in built-up regions, a spread of housing, the construction of infrastructure, and a reorganization of industrial districts on the outskirts of the city (Fetene and worku 2013). Even though the city suggested a variety of UGI components throughout the last two structural plan revision cycles (in 2003 and 2016), the city's current situation shows that there isn't enough UGI that is readily available for local inhabitants (Abeje 2007).

3.1.6. Economic Activity

Ethiopia's capital city, Addis Ababa, also serves as the nation's political and economic center. Trade and commerce are the two economic activities that are most prevalent in the city. In addition, manufacturing and industry, domestic work, civil service, transportation and communications, and other economic sectors offer the majority of job opportunities in the city.

This research was conducted at two localities in Addis Ababa, namely Jemmo condominium three in Nefas Silk Lafto sub-city and Kirkos apartments at district 7 in kirkos sub-city. As the map portrayed below, the study area two is Jemmo condominium three and study area one is Kirkos apartments.

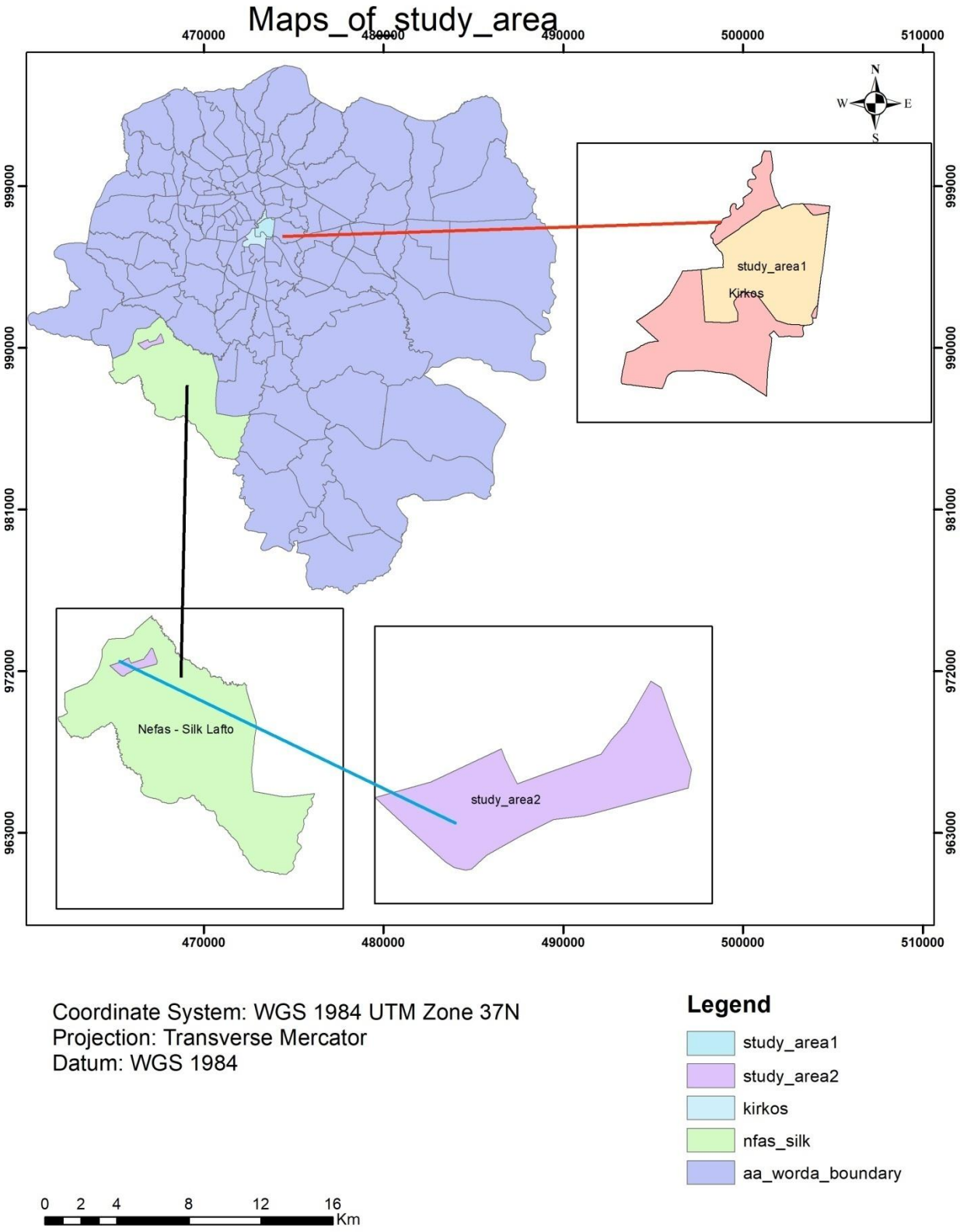


Figure 1: Map of Study

3.2. Research Approach

The study adopted mixed approaches to provide better understanding of the research problem and research questions. It gives good frame for complementarity, convergence and corroboration of the results from various methods. Both quantitative and qualitative research methods might make up for one other's shortcomings. The researcher can gain richer, deeper insights and comprehension of the research problem by combining the two approaches. In order to strengthen the validity of the findings by balancing the shortcomings that result from using only one of the approaches, the research used both quantitative and qualitative methods. Therefore, quantitative methods used to obtain and analyzed statistical data.

Thus, questionnaires were used to collect numerical data about the problem. The qualitative methods were also employed to gather qualitative data. Accordingly, the research utilized the key format interviews and observations that are convenient to obtain qualitative data to this study.

3.3. Research Design

Burns and Bush (2002) described research design as a series of decisions made in advance that make up the overall strategy and identify the techniques and steps to be taken for gathering and analyzing the required data. This helped the researcher to formulate the sort of data to collect for the study. They include exploratory, explanatory, descriptive, and cross-sectional research designs, to name a few. This study adopted descriptive research design. Since the goal of most descriptive research is to describe the state of circumstances at the time of study, descriptive research design enables the researcher to provide an accurate description of observations of phenomena.

3.4. Target Population

The study was conducted at different sites, Jemmo 3 condominium and Kirkos sub-city, district 7 in Addis Ababa. Jemmo 3 condominium is found in Nefas Silk Lafto sub –city and has the total population of 1864 residents. Kirkos sub-city, district 7 is found in Kirkos sub-city and has 420 residents. Therefore, the target population for this study was 1864 resident from Jemmo 3 condominium and 420 residents (Legahar and Beharawi) from Kirkos sub-city, district 7.

3.5. Sampling Technique and Sample size

The study was comparative. The sample size was determined from two localities separately. If each sample size determined separately by the formula like Yemane formula, it will be large sample size that is uncontrolled. It is therefore the researcher determined the sample size by using percentage that is 10% from each target population. This is due to the fact that maximum percentage used to determine a sample size from a given sample frame is typically about 10%. (Source: A rough guide by Ronan conroy).

Sample size for	Sample size for
Jemmo 3 condominium	Kirkos sub-city
1864*10% =186	Government owned Apartments of District, 7
	420*10% = 42

To select the respondents, simple random sampling was employed.

3.6. Source of Data

Data required for this study was obtained from primary and secondary sources. Accordingly, primary data was gathered from residents of Jemmo condominium 3 and government owned apartments from Kirkos sub –city district 7(woreda 7) and secondary data such as journal articles, NGOs report and research findings related to the problem were used.

3.7. Data Collection Methods

The primary data essential for this research was gathered from Jemmo condominium 3 and government owned apartments from Kirkos sub –city district 7 residents through using closed ended questionnaires. The questionnaire was designed on Likert rating scale (1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree). Published secondary data such as journal articles, NGOs report and research findings related to the problem used.

The primary data was also gathered through key format interview and observation.

Key format interview

The key format interview is the qualitative in depth interviews with the people who know what is going on in the area of interest. The primary qualitative data were gathered from the offices of both sites through open ended questionnaires. The researcher first, prepared open ended questionnaires. The researcher selected eight participants from both sites. One officer and three respondents from Federal Housing Corporation in case of apartments and one officer and three

respondents from Nefas Silk Laft sub-city district 01 office in case of condominium through convenient sampling. The six participants were selected based on their experience and status with the help of respective officers. In depth interviews were conducted through text on 9/2023 at 1:30pm-4:30pm at Federal Housing Corporation and on 10/2023 at 8:30am-11:30am at Nefas Silk Laft sub-city district 01 office by the researcher himself. The role of the officers was giving data, helping the researcher for selecting other respondents and informing them to provide data and the part of each respondent was providing genuine responses for the quaternaries provided to them.

Observation

In addition to key format interview, the researcher also conducted field observation in order to obtain qualitative data. The researcher gathered these data directly by visiting the sites of the study areas through notes. The observation was conducted on availability of green space of the sites and extent of green space management of sites.

3.8. Data analysis

The research intended to assess green space use and management in Addis Ababa. In this chapter, data collected for the purpose of the research were presented, analyzed and interpreted. Statistical Package for Social Sciences (SPSS) software used to facilitate presentation and analysis of data collected through questionnaires. First, data collected through the questionnaires were edited, coded and keyed into the Statistical Package for Social Sciences (SPSS).

Data collected through questionnaire in the form of Lickert scale ranging from 1 strongly disagree-to-5 strongly agree are quantitative nature. Accordingly, quantitative data analysis that is descriptive statistical analysis was used. Thus, the collected data were presented on graph and table. To analyze the data, frequency distribution, percentages and mean were computed. Thematic content analysis was also adopted to analyze the text data.

Thematic content analysis is the way of producing themes from the text such as interviews or focus group transcripts. It is the data analysis method used to analyze qualitative and descriptive data a researcher gathers to solve his or her problem. Accordingly, the text data were taken in the form of phrases and sentences from respondents by the researcher. After took the text data, the researcher arranged and organized it in to simple and manageable form. Hence, the researcher took the information obtained which were more related to the problem and used it in analysis and conclusion.

3.8.1.Reliability

Lee Cronbach created the reliability metric known as Cronbach's alpha in (1951). A measure of consistency between various pieces of the same construct is called internal consistency reliability. It is frequently employed as a gauge of a psychometric test's internal consistency or reliability for a sample of test takers. Cronbach's alpha coefficient of reliability was calculated to assess the validity of the research instruments and the data instrument. Lombard (2010) claims that coefficients of 0.90 or higher are almost always acceptable, 0.80 or higher are often acceptable, and 0.70 may be appropriate. Therefore, Cronbach's alphas of 0.70 or higher were considered acceptable for this investigation. The reliability test results are shown in the table below.

Table 1: Test of Reliability

Variables	Number of Items	Cronbach's Alpha
Attitude and behavior	6	0.77
Community participation	5	0.72
Factors affecting green space development and management	10	0.83

Source: Survey questionnaire

Since the value of Cronbach's alphas for this study is above 0.70 for all scale variables. Therefore, the result confirmed consistency of the data collection instruments.

3.8.2. Validity

Validity, according to Ghauri & Grönhaug (2005), is the degree of accuracy of the study's findings. Results validity might be either internal or external. The investigation of the accuracy of the generated results is referred to as internal validity. The analysis of the results to determine their applicability is known as external validity. External validity is the evaluation of the results in terms of their applicability. As a result, a range of knowledge-related questions were included in surveys to ensure validity. To make sure the questions are representative, they were created using the data acquired throughout the literature study. Consistency in how the questions were administered helped to further verify content validity. In order to achieve this, the researcher

individually handed questionnaires to the subjects. Additionally, for clarity and understanding, the questions were written in simple language, and the subjects received clear instructions. The feedback from pilot tests and research advisor comments were used to strengthen the questionnaires by reorganizing the questions to better fit the research topics, deleting any questions that weren't necessary, and fixing any grammatical problems.

3.9. Ethical Considerations

Every participant in the study had a right to privacy and dignity, and the researcher was required to keep all information acquired in strict confidence. All contributions from others, including their help and collaboration, and the information's original sources, were recognized. Overall, this research was conducted with the following ethical issues in mind. a) Fairness b) Intentional openness c) Method of disclosure d) The subjects' informed consent to take part voluntarily in the study act e) Respect for or integrity of the individuals.

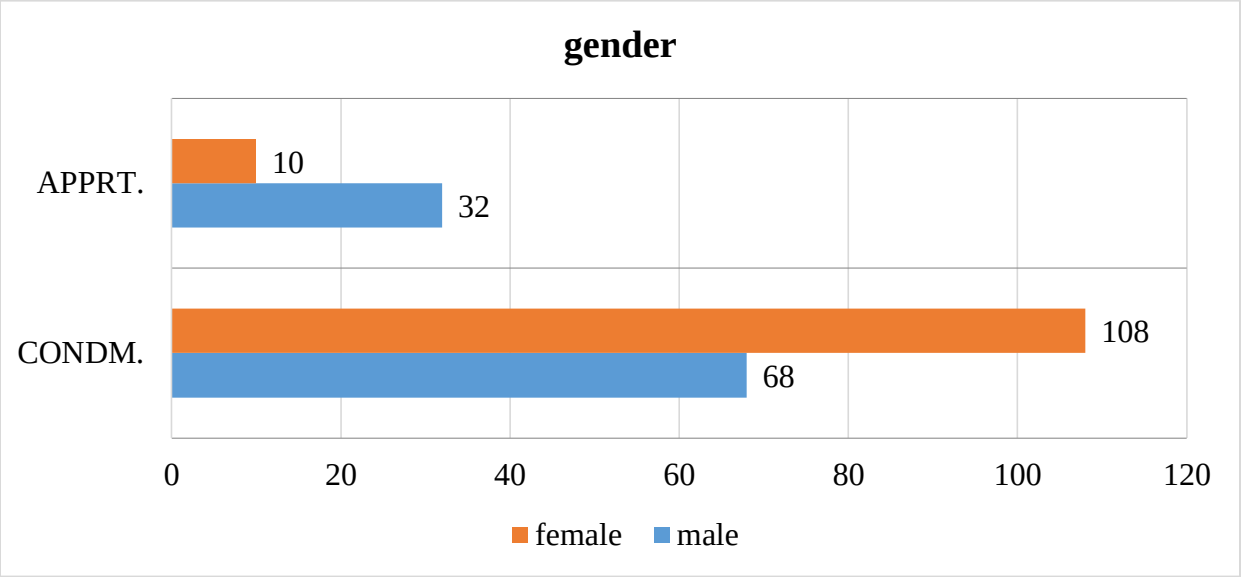
CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Social and Demographic Characteristics

This section showed the respondent's demographic characteristics and contribution of respondents. Therefore, this section was devoted to analyze respondent's demographic data to see its implications in the data collection instrument and the contribution made to fill full the objectives of the research. Accordingly, respondent's capability to understand the requirement of the data collection instrument and respondent's ability to provide matured responses was judged. Demographic characteristics such as gender, age category, and educational status as well as respondents' involvement in the green space availability were selected to achieve the research objective, answer research questions and valid the research in general.

Figure 2: Respondents Gender Distribution

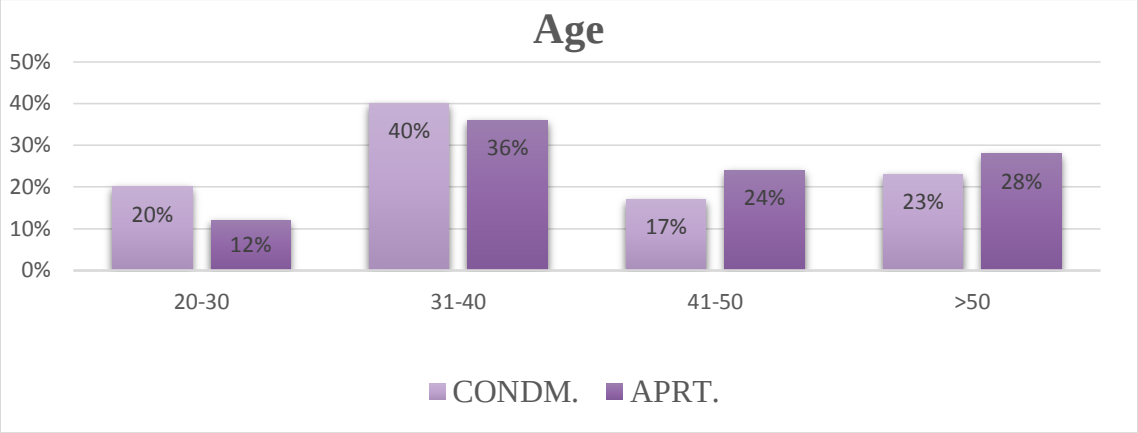


Source: questionnaire survey, 2022

Figure 3 depicts the gender distribution of respondents in the category of respondents. Accordingly, in condominium 108 respondents are female and 68 respondents are male. Whereas in apartments 10 respondents are female and 32 respondents are male. This showed that both

genders were represented in the research. From this, one can understand that the number of female respondents is higher than male respondents in the case of condominium.

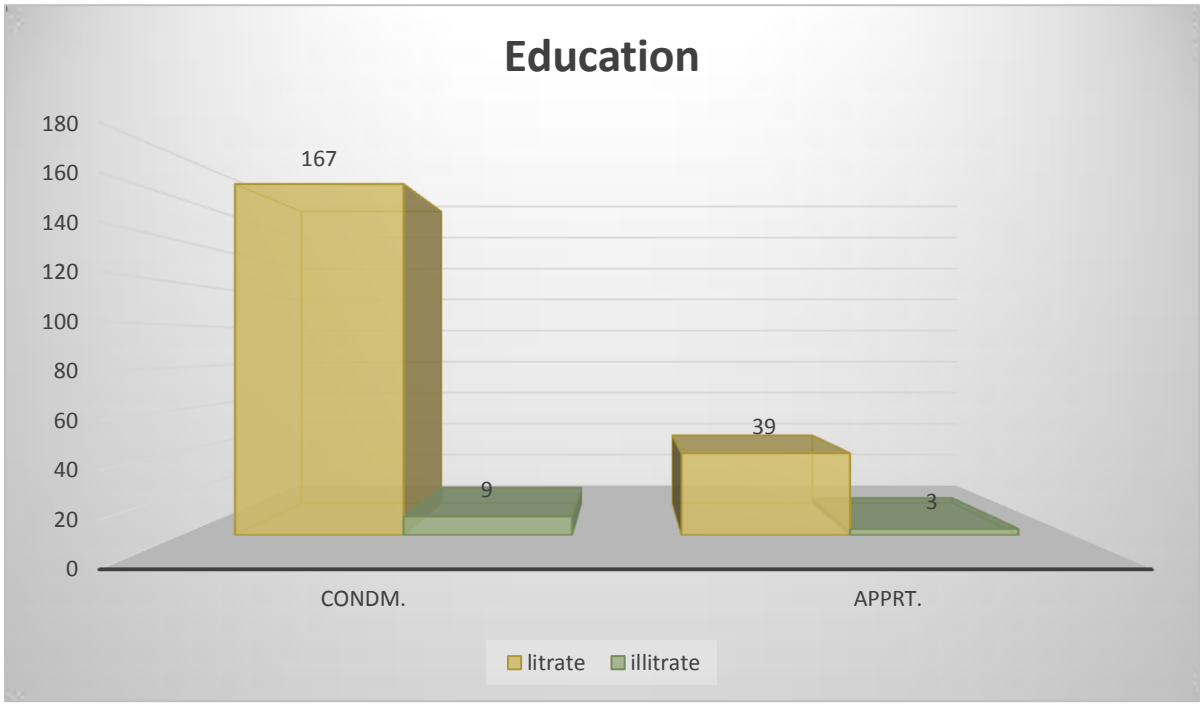
Figure 3: Age distribution of respondents



Source: questionnaire survey, 2022

As indicated by the figure 4 above, age distributions of respondents, all age categories were participated in data collection instruments and devoted to fill full the objective of the research. The figure pointed out the highest age category is 31-40 which represents 40% of condominium respondents and 36% apartment respondents.

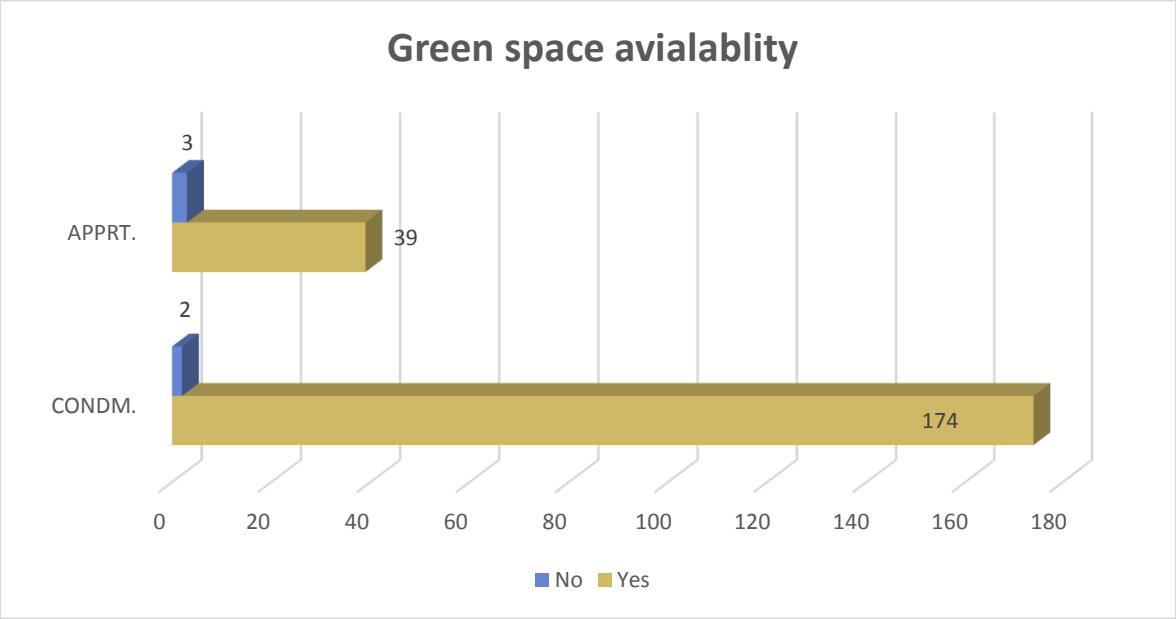
Figure 4: Educational status of respondents



Source: Questionnaire survey, 2022

Figure 5 above portrayed respondent's education status for both categories of respondents. Accordingly, in the case of condominium respondents 167 respondents are literate and the rest 9 respondents are found illiterate. In the case of apartments, 39 respondents are literate while 3 respondents are illiterate. Thus, education status of respondents showed that majority of respondents in both category are literate and from this it can be inferred that majority of respondents can understand data collection instruments to provide appropriate response to the questions posed to them. Nonetheless, the researcher made effort to make illiterate respondents to understand the content of each question as much as possible.

Figure 5: Green space availability



Source: Questionnaire survey, 2022

Figure 6 indicates the availability of green space in condominium and apartment localities. Based on this, in the case of condominium 174 respondents confirmed that green spaces are available in their residence area where as 2 respondents said that green spaces are not available in their locality. With regard to apartments, 39 respondents witnessed that green spaces are available in their locality while only 3 respondents confirmed that green spaces are unavailable in their residential. From this fact, one can infer that both condominiums and apartments have been constructed by considering green spaces though use and management of them is different. To support this information, the data from personal observation showed that there has been better green space use and management in case of condominium and it poor in case of apartments.

4.2 Resident's Attitude and Behavior towards Green space Use

Fast economic and social changes in recent years in Addis Ababa have brought massive expansion, redevelopment, and restructuring of the city. Therefore, these changes can offer opportunities to the city administration to improve environmental quality through integrating urban green spaces development to address the challenges of meeting community ambitions.

Thus, it is pivotal to assess more the resident's attitude and behavior towards green space values. Hence, table below depicts the attitude and behavior of residents.

Table 2: Attitude and Behavior

Items	Condominium		Apartments	
	N	Mean	N	Mean
Green spaces improve the quality of life	176	4.58	42	5.00
Green space is useful for proper child development	176	4.55	42	5.00
Green space reduce global warming and regulate local climate	176	4.54	42	5.00
I am committed for the development of green space	176	3.80	42	4.38
I encourage community to participate in green space development	176	3.65	42	3.67
I report any misuse of green space to concerned body	176	3.60	42	2.13

Source: Survey Questionnaire 2022

Green space improve quality of life was question posed to both category respondents. The showed 4.58 mean value in condominium and 5.00 mean values in apartments. Therefore, both condominium and apartment respondents agreed with the stated statement.

In conjunction with this green space contribute for proper child development was the question posed to respondents. The result indicated by mean value of 4.55 and 5.00 respectively. Consequently, participants agreed with the stated statement in both localities.

Another question used to measure resident's attitude towards green space was that green space reduces global warming. The result pointed out 4.54 mean value in condominium and 5.00 mean values in apartments. For this, majority of condominium respondents said that green space help to combat global warming and apartment respondents unanimously replied that green spaces can serve as a weapon for the current global warming.

In this category, questions that are indicating residents' behavior were raised; the first question raised to the research participants was 'I am committed for green space development'. The result exhibited 3.80 in condominium and 4.38 in apartments. Hence, in both localities, respondents confirmed that they committed for green space development.

The next question posed to respondents related to behavior was efforts made to encourage local community to participate in green space development. The result showed that 3.65 and 3.67 mean values respectively. Accordingly, majority of respondents in both category confirmed that they encourage community participation in the development of green space in their locality.

The last question in this category was detecting resident's action on reporting any form of misuse of green space. The result indicated by mean value of 3.60 and 2.13 respectively. Hence, majority of condominium residents confirmed that they report green space misuse to the concerned body a while apartment respondents replied that they have not reported green space misuse.

According to the data obtained from participants, city government has created awareness about numerous values of green spaces to the community. Respondents said that taking into consideration its significances; recently, high priority has been given for its development and has been done in the city. The green spaces development offices have responsible actors though not adequate to address or aware community regarding green space the importance and significances for them and the environment as well.

To conclude, resident's attitude towards the green space uses and their behavior towards it were found to be positive in both localities. Therefore, it is important including their participation in the different aspects of green space use and management in the city.

4.3 Community Participation in Green space Management and Development

Green spaces are good for human health and they are crucial for community health. The community participation in green space planning process makes it possible to supplement the knowledge of various professionals with local knowledge. Invaluable local knowledge can be used to augment the expertise of various professions thanks to community involvement in the planning process for green spaces. Building a collective knowledge of what livability means in the particular place is made possible by the participative approach. Community involvement in urban planning is regarded as crucial for fair and representative decision-making since it aids in the formulation of land-use plans that address the diverse demands, issues, and interests of communities to produce more fruitful outcomes (Mahjabeen et al., 2009). In line with this fact the following table shows the extent of community participation in green space management and development.

Table 3: Community participation

Items	Condominium		Apartments	
	N	Mean	N	Mean
I attend green space meetings	176	3.04	42	1.90
Contribute money and labor for green space development	176	3.12	42	1.93
I participate in planting and gardening of green space	176	3.43	42	1.69
Closely work with local authority in issues of green space	176	3.07	42	2.57
Actively involved in protecting and maintaining green space	176	3.23	42	2.29

Source: Questionnaire survey, 2022

In both category, respondents were asked if they were attending meetings concerning to green space use and management in their locality. The result showed that 3.04 value in condominium and 1.90 values in apartments. Accordingly, condominium respondents confirmed that on average they attend such meetings held in their locality while apartment residents majority of replied that they did not attend such meeting.

The next question posed to both category respondents was aimed at ascertaining resident's money and labor contribution for the development of green space. The result indicated 3.23 in condominium and 1.93 in apartments. Thus, majority of apartment residents witnessed that they did not contributing money or labor for green space development while majority of condominium respondents confirmed that they contribute money as well as labor for green space development in their locality.

Resident's participation in planting and gardening of green space was another inquest to investigate community participation in green space use and management. The result pointed out 3.43 and 1.69 mean values respectively. Accordingly, nearly majority of condominium respondents replied that they involved in planting trees and gardening while majority of

apartment respondents confirmed that they did not participate in planting trees as well as in gardening of green space. To valid this information, the data from personal observation showed that the local community has participated in use and management of green space in condominium. However, their participation in gardening planted trees is not enough even in case of condominium and poor participation in green space development in case of apartments.

To what extent residents work closely with local authority in green space development and management was also question posed to respondents. The result indicated by mean value of 3.07 and 2.57 respectively. In this regard, in condominium, there is better cooperation and apartment resident's response indicates low cooperation. To support the findings, the data obtained from interview participants pointed out, there are responsible bodies that follow up and enforce the community to participate and contribute in the development of green spaces through planting and gardening and maintenance as well as protecting and conserving trees. However, this information has been applied in case of condominium because in apartments there has been poor cooperation in the use and management of green spaces.

The last question asked to the research participants was to determine resident's active involvement in protecting and maintaining green space areas. The result exhibited 3.23 in condominium and 2.29 in apartments. Accordingly, majority of respondents of condominium respondents confirmed their involvement in protecting and maintaining green space while majority of apartment respondents replied that they didn't protect and maintain green space areas.

The data obtained from interview participants showed that city administration has green space policies which benefit and participant community in green spaces development. According to respondents, the city has the following green space policies; development of urban green infrastructure, public park expansion, climate mitigation and adaptation, urban greenery and beautification, creating ecologically well-functioning environment and provide suitable and sufficient ecologically viable green spaces for recreation.

The general finding is that even in condominiums that were created with green space facilities, community involvement in the use and management of green space was found to be insufficient and poor involvement in case of apartments. This context, Gezahegne Gebremeskel's (2014) study, "Status of Green Spaces and Green Space Participatory Management in the City of Addis Ababa," found that poor community involvement in green space use and management.

4.4 Factors affecting Green space Management and Development

Numerous studies have demonstrated how green spaces improve mental and physical health while reducing stress. Additionally, green spaces are linked to improved air quality, decreased road noise, and cooler temperatures. Participation in activities taking place in these areas, such social contact or physical activity, may also have positive effects on mental health and wellbeing. These advantages consist of reduced stress and anxiety as well as enhanced mood and focus. Thus, green space is linked to a wide range of health advantages, such as decreased premature mortality, increased life expectancy, decreased cardiovascular disease, decreased mental health issues, and improved cognitive functioning in children and the elderly and healthier newborns. Nevertheless, a number of issues that lessen green space development and management values to society as a whole.

Table 4 factors affecting green space management and development

Items	Condominium		Apartments	
	N	Mean	N	Mean
illegal settlement	176	3.46	42	3.01
Lack of urban green space planning	176	2.81	42	2.93
Lack of local authority commitment for green space development.	176	4.11	42	4.67
Lack of local authority willingness to participate community	176	4.07	42	4.46
Poor enforcement of green space regulations	176	4.06	42	4.67
Inadequate workers for green space use and management	176	3.99	42	4.00
Inadequate budget for green space use and management	176	3.94	42	4.08
Uncooperative attitude of residences	176	3.04	42	3.60
lack of awareness of residents towards green space	176	3.22	42	3.48
Lack of collaborative practices by local authority and residents	176	3.21	42	3.50

Source: Questionnaire survey, 2022

The first question posed to both respondents on illegal settlement. The result showed 3.46 mean value in condominium and mean value of 3.01 in apartments. Therefore, the illegal settlement is relatively high challenge in condominium than in apartments. Concerning to lack of urban green space planning, the result indicated a mean value of 2.81 and 2.93 respectively. Consequently, lack of urban green space is not a challenge in both condominium and apartments. Regarding to lack of local authority commitment for green space development, the result pointed out 4.11 in condominium and 4.46 in apartments. Thus, lack of local authority commitment is relatively big problem in apartments than that of condominium.

Regarding to lack of local authority willingness, the result indicated 4.07 mean value in condominium and a mean value of 4.46 in apartments. Therefore, lack of local authority willingness is relatively higher challenge in apartments than that of condominium. Poor enforcement of regulation was another question asked to participants. The result showed 4.06 in condominium and 4.67 in apartments. Hence, poor green space regulation is relatively big challenge in apartments than in condominium.

Concerning inadequate workers for green space use and management, the result pointed out 3.99 in condominium and 4.00 in apartments. Consequently, inadequate workers in green space use and management are the common challenge that hindered green space use and management in both localities. To hold up this finding, the information from respondents indicated that the offices have the actors or responsible bodies to run green space development project and work with the community to maximize the green space benefits to wider community but they are not large in number due to budget constraints. In relation to inadequate budget for green space use and management, the result indicated 3.94 in condominium and 4.08 in apartments. Thus, inadequate budget in green space use and management are the common challenge that affected green space use and management in both localities. To support the above finding, the data obtained from interview participants' showed that the green spaces development office has the budget to run green spaces management and development but they said that we cannot say it is adequate. Uncooperative attitude of residents was another question posed to respondents. The result pointed out 3.04 in condominium and 3.60 in apartments. Consequently, uncooperative attitude of residents is relatively higher in apartments than that of in condominium for development of green spaces. Concerning, lack of awareness of residents towards green space, the result indicated 3.22 in condominium and 3.48 in apartments. Thus, lack of awareness of

residents towards green space is relatively the big challenge in apartments than that of condominiums.

The last question posed to participants was lack of collaborative practices by local authority and residents. The result exhibited 3.21 in condominium and 3.50 in apartments. Accordingly, lack of collaborative practices by local authority and residents is higher factor in apartments and relatively low factor in in condominium.

To support these conclusions, the data collected from interview respondents generally revealed that the main factors affecting the management and development of green spaces are financial constraints, a lack of professional expertise, a lack of awareness and poor public participation, and a lack of cooperation among various actors.

The research entitled "Status of Green Spaces and Green Space Participatory Management in the City of Addis Ababa" conducted by Gezahegne Gebremeskel (2014) revealed challenges with green space development. According to this author, the study shows that in the context of Addis Ababa city, poor community and stakeholder involvement, especially dialog and linkage among those organizations mandated to steward Green spaces, and resource limitations, such as a shortage of qualified geospatial and landscape professionals, are the main causal factors for the dysfunction.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Green space development practice in Addis Ababa revealed a mixed result that is condominiums have better green space practices whereas apartments have poor green space development practices. In other words, in condominiums, the green space has been effectively practiced whereas in apartments, it has been poorly exercised. Therefore, there is vivid difference between the two resident areas in terms of green space use and management. The researcher personal observation witnessed this fact as what exists in apartments resident area is poorly managed green spaces. Thus, this indicated a gap in green space policy implementation as well as lack of integrated green spaces development practices in the city. Moreover, even, in condominium where green spaces were better practiced, government budget allocation and assign professionals for green space management and development was found to be inadequate.

Resident's attitude towards green space was quite high in both condominium and apartment residents as they believe that green spaces improve the life quality of community and help to develop climate smart city. This positive attitude by both residents induce them to commit themselves for green space development and encouraging communities around to participate in green space management and development.

However, the overall findings of the study showed that even in condominiums that were created with better green space facilities, community involvement in the development and management of green space was insufficient. According to Gezahegne (2014), insufficient levels of community involvement were to blame for the problems with green space development and administration. Gezahegne continued by stating that in the context of Addis Ababa city, low community and stakeholder involvement are the primary cause elements for the dysfunction. Similar findings from interviews conducted from respective offices indicated that residents had not contributed enough to the management of green spaces especially in apartment localities.

Numerous health advantages, including lower premature mortality, increased life expectancy, fewer mental health issues, decreased cardiovascular disease, improved cognitive functioning in children and the elderly, and healthier newborns, are linked to green areas. However, Addis

Ababa City's development and administration of green spaces were found to be constrained by a number of problems that lessened their value to the general public.

Factors hindered green space use and management are in adequate budget and workers; poor green space regulations; lack of local authority willingness and commitment for green space development and participating community and unauthorized habitation. These are major factors affecting green space development and management in both condominium and apartments though they are relatively vary in these localities. As a result, the aforementioned concerns made it difficult for green spaces to effectively improve public health and protect the environment.

5.2 Recommendation

Addis Ababa city administration should follow inclusive green space policy implementation in place in all area of the city so as to enhance the development of green spaces. In this case, green space use and management should be practiced particularly in apartments where its practices are poor. The city government should strength enforcement of green spaces regulations the particularly in apartments where green space use and management practices are low. City government need to regulate and follow up the management and illegal use of green space areas by strengthening the capacity of the responsible office through allocating adequate budget and personnel.

The Addis Ababa city administration should aware community and attitudinal change more about the usefulness of green space in improving quality of life and developing climate smart city through meeting and other means so as to enhance community participation in development and management of green spaces.

The findings pointed out that public involvement in the use and management of green spaces especially in apartment localities found to be low. Therefore, it needs to generate community awareness and enforcement of regulations as well as needs committed implementation of policies and strategies towards it improvement.

Community participation in use and management of green spaces should be self- governance in this case; it is similar to governance arrangements facilitated by communities themselves without the help of formal governance by associations through bottom- up self-administration via informal understanding, negotiations, trust relations and informal social control rather than state coercion. In other words, the community shall make association which contains their own agreed rules and regulations through which they govern to use and manage green spaces.

The concerning body need participate the community in planning, design and decision making processes regarding to use and management of green spaces. The community should make collaborations with stakeholders such as NGOs, local business and organizations and environmental experts. In this case they supported with finds, knowledge and skill that lead to effective use and management of green spaces.

According to the findings from analysis and the data collected from the respondents, financial constraints, a lack of professional workers, a lack of public awareness and poor public participation, as well as a lack of cooperation between various actors, are the main factors that have an impact on the use and management of green spaces. In order to realize the goal of developing green spaces in the city, the local government should minimize these obstacles.

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Appendix

Addis Ababa University

College of development studies

Department of environment and development

Questionnaire prepared for residents

Dear Respondent, I would like to express my sincere appreciation and deepest thanks in advance for your generous time and frank and prompt responses.

The purpose of the research is to examine the practice (use) and management of green space in Addis Ababa

I want to assure you that this research is only for academic purpose. Thus, your ideas and comments are highly honored and kept confidential. For your free and genuine responses, you are not required to write your name.

Contact Address: If you have any query, please do not hesitate to contact me. I am available at your convenience on Tel. 0920763274.

1. Sex ☐
   A. Male ☐
   B. Female ☐
2. Age
   A. Above20- 30 ☐ B. 31-40 ☐ C. 41-50 ☐ D. Above 50 ☐
3. Education status A. illiterate ☐ B. literate ☐
4. Residential area A. Jemmo/ Condominum ☐ B. Kirkos Apartment ☐
5. Green space available in my residential area A. Yes ☐ B. No ☐

Questions related to green space development practice (use) and management

Please tick in the appropriate box to indicate your level of agreement for questions raised concerning green space practice (use) and development.

Where: Strongly disagree (SDA)=1,Disagree (DA)=2, Undecided (UD)=3, Agree (A)=4 and Strongly agree(SA)= 5

Attitude and behaviors of local residents towards use green space	SDA	DA	UD	A	SA
Green spaces improve the quality of life					
Green space is useful for proper chilled development					
Green space can reduce climate change and regulates local climate					
I am committed for the development of green space					
I encourage my local community to participate in the development and management of green space					
I report to the concerned body any misuse of green space in my locality					
Community participation on green space management and development					
Attend meetings related to the development and management green space					
Contribute money and labor for green space development and management					
I participate in planting and gardening of green space in my locality					
Closely work with local authority in development and management of green space					
Factors Affecting Green Space Management And Development					
Rapid urbanization and illegal settlement					
Lack of proper urban planning					
Lack of local authority commitment in green space development and management					
Lack of local authorities willingness to participate community in development and management of green space					
Poor enforcement of green space regulations					
Inadequate workers in the office of green space management and development					
Inadequate budget for green space governances					
Uncooperative attitude of residents					
Lack of awareness by local residents					
Lack of collaborative practice by local authority and residents					

If you have additional idea about green space development practice and management please state here under

_____

_____

_____

_____

Thank you

Interview check list

1. What do you think about the implementation of green space policies and strategies to bring its development?
2. Do you think that the green space development offices have adequate workers?
3. What do you think about the budget with respect to green space development practices?
4. What do you see the value of green space for community wellbeing and government practices towards awareness creation?
5. How do you explain the extent of offices follow- up and manpower in green space development?
6. Can you describe challenges facing green space development practices?

The interviews conducted regarding the green space use and management from concerning actors both in condominium and government owned apartments. Conducting interviews on large number of respondents is difficult and tiresome. Accordingly, the key format interview has conducted.

Addis Ababa city administration has green space polices and strategies which have been on implementation. As the researcher obtained qualitative data from the respondents, the city has the following green space policies; development of urban green infrastructure, public park expansion, climate mitigation and adaptation, urban greenery and beautification, creating ecologically well-functioning environment and provide suitable and sufficient ecologically viable green spaces for recreation. Urban green spaces have numerous values for the society. Taking into consideration its significances, recently, high priority has been given for its development and has been done in the city. The green spaces development offices have

responsible actors though not adequate to address or aware community regarding green space the importance and significances for them and the environment as well. The objective of the office is creating awareness of the community. In this regard, there are responsible bodies that follow up and enforce the community to participate and contribute in the development of green spaces through planting and gardening as well as protecting and conserving trees

According to the data collected from the respondents, financial constraints, a lack of professional expertise, a lack of public awareness and engagement, and a lack of cooperation between various actors are the main variables that have an impact on the administration and development of green spaces

The green spaces development office has the budget to run green spaces management and development but they said that we cannot say it is adequate. The project is at developing stage it is therefore not enough. The office has the actors or responsible bodies to run green space development project but they are not large in number due to budget constraints.

Observation

Jemmo Condominium

The green space has been integrated in the master plan. There is availability of green vegetation in the study area. The space left or provided for green space development was covered by vegetation but not the whole spaces. As it is observed in the course observation, the practice and management of green space by responsible actors is good. The existing green spaces have been well protected and conserved. The attitude and behavior of local community towards green spaces values is good because their perception towards significance of green spaces for social, economic and environment is high. The local community has participated in management and development of green space. However, their participation in gardening planted trees was still not adequate. As far as researcher observed, there has been proper urban planning that integrated green space development in the study area. However, willingness and commitment of local authorities towards green spaces use and management as well as development is not enough. Collaboration between residents and local authorities to practice and manage green space is still not adequate because conserving and gardening the existing green spaces is not enough. In addition to this, different types of wastes were thrown to the green spaces.

Kirkos Apartments

The study area has a master plan that integrates green spaces. Accordingly, there is availability of green space in the study area. However, there has been weak use and management of green spaces in the localities that is participation of local community in the use and management of green spaces is poor. Absence of community awareness towards, lack of collaboration of community with local authority, green spaces, poor enforcement of laws, willingness and commitment towards green spaces management and development have been challenges that have observed in the study area.