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FEASIBILITY STUDY FOR ON-SITE RESETTLEMENT HOUSING PROJECT

Based on the case of a Slum* area set for On-site Resettlement in 'Abinet' locality of Addis Ketema** Sub City, Addis Ababa, Ethiopia

A thesis submitted to the school of graduate studies of Addis Ababa University, Ethiopian Institute of Architecture, Building Construction and City Development (EiABC), in partial fulfilment for Master's degree in Urban Land and Property Valuation.

By

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***** This study uses the term 'slum' because it is currently the internationally adopted usage in global development organizations, but this does not deny the controversial nature of the term.

**Addis Ketema' is an amharic word that translates to 'New City'

This thesis is submitted to Ethiopian Institute of Architecture, Building Construction and City Development (EiABC), Addis Ababa University, in partial fulfilment of the requirements for the degree of Masters of Arts in Urban Land and Property Valuation.

Title of Thesis: Feasibility Study for On-site Resettlement Housing Project

Based on the case of a Slum area set for On-site Resettlement in 'Abinet' locality of Addis Ketema Sub City, Addis Ababa, Ethiopia

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DECLARATION

I declare that, this thesis prepared for the partial fulfilment of the requirements for the degree of Masters of Arts in Urban Land and Property Valuation entitled "**Feasibility Study for On-site Resettlement Housing Project Based on the case of a Slum area set for On-site Resettlement in 'Abinet' locality of Addis Ketema Sub City, Addis Ababa, Ethiopia**" is my original work, and it has not been submitted by any other person for an award of a degree in any other university or institutions and that all sources of materials used for the thesis have been dully acknowledged.

Naol Delesa Lemessa

Signature……

CONFIRMATION

I stated that Naol Delesa Lemessa has carried out this research work on the topic entitled "**Feasibility Study for On-site Resettlement Housing Project Based on the case of a Slum area set for On-site Resettlement in 'Abinet' locality of Addis Ketema Sub City, Addis Ababa, Ethiopia**" under my supervision and it is sufficient for submission for the partial fulfilment for the award of master's degree in Urban Land and Property Valuation.

Mesfin Yilma

Signature ……

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Abbreviations and Acronyms

AAILIC	Addis Ababa Integrated Land Information System
AASHDE	Addis Ababa Saving Houses Development Enterprise
AU	African Union
BAR	Building Area Ratio
BPR	Business Processing Re-engineering
CSA	Central Statistics Agency
CBD	Central Business District
DPP	Discounted Payback Period
ECA	Economic Commission for Africa
EiABC	Ethiopian Institute Architecture, Building Construction and City Development
EPRDF	Ethiopian People Revolutionary Democratic Party
EDO	Environmental Development Office
FAR	Floor Area Ratio
FDRE	Federal Democratic Republic of Ethiopia
GDP	Gross Domestic Product
GIS	Geographic Information System
GTP	Growth and Transformation Plan
HABU	Highest and Best Use
IHDP	Integrated Housing Development Programme
ICESCR	International Covenant for Economic, Social and Cultural Rights
LDP	Local Development Plan
LDBUR	Land Development, Banking and Urban Renewal
MDG	Millennium Development Goal
MOFEC	Ministry of Finance and Economic Cooperation
MOUDCo	Ministry of Urban Development, Housing and Construction
NGO	Non-Governmental Organization
ORAAMP	Office for the Revision of Addis Ababa Master Plan
OIB	Oromia International Bank

PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
SPSS	Statistical Package for Social Science
UNECA	United Nations Economic Commission for Africa
UDHR	Universal Declaration of Human Rights

Abstract

This study tested the feasibility of on-site resettlement based housing project where it applied affordability as an indicator. For the purpose of applying the test it used a slum locality around Abinet area in Addis Ababa, Ethiopia as a study case in point. Abinet is located in Addis Ketema Sub city (among the 10 Sub Cities of Addis Ababa) of Wereda 01 (among the 116 Woredas in Addis Ababa where a Woreda is the smallest administrative unit). Abinet is one of the old inner-city neighborhoods of Addis Ababa. The study employed housing expenditure-to-income ratio to determine housing affordability and discounted pay-back period method as a financial tool to test the feasibility of the project. A to scientific sampling scheme was applied to select representative samples from which data was collected by using mixed instruments including site visit, semi structured questionnaire, key informant interview checklist, literature review schedules and other techniques. Accordingly, these instruments were administered on 113 randomly selected respondents and 10 key informants in addition to an adequate mix of literature or appropriate references as secondary data sources. Processing and analysis of data was made by using SPSS where generated statistics like frequency and percentages were made use of. Additionally, ethnography and narrative approaches were also applied.

The findings of the study indicated that, on-site resettlement is a successful scheme. Broadly speaking, given the findings and analyses of this study, on-site resettlement is seen as an important part of inner-city slum renewal strategy that it maintains socioeconomic wellbeing of the residents while providing affordable housing for all income levels, improving the physical condition of slum areas in addition to changing the image of the city thus fostering livability and better times. According to the analysis of sampled respondents data, discounted pay-back period of the project is three years and four months where it is found that residents have the motivation/willingness and the ability to finance their own resettlement.

Keywords: *Urban Slum, On-site Resettlement, Affordability, Housing Expenditure-to-income ratio, Discounted Pay Back Period Method, Feasibility.*

CHAPTER ONE

INTRODUCTION

1.1 Background and context of the study

For many decades now, reportedly if not evidently, a quarter of the planet's humans opted to lead their lives in sub-standard slums where the situation remained without any significant change against the backdrop of huge efforts mounted by governments' and their rhetoric that never matched practices. In Ethiopia, most if not all slums do not qualify as housing units, hence residents in urban slums as much as rural communities who live in substandard conditions can be labeled as homeless, save the controversial nature such seemingly 'humble' or 'innocent' statement. Living conditions or services are not insufficient but inexistent and even if they exist wrongly setup. The main concern of this feasibility study is therefore to check and verify the motivation/willingness of slum residents to change by making a collective decision to resettle themselves on the land they occupy as a community sharing painfully affluent values (the concern is about maintaining homes not constructing houses per se) without being displaced to another locality/site. Within this spectrum/paradigm, increasing the supply of houses and even better or more appropriately home is a key priority for the Government of Ethiopia that is committed to support the will of the citizens it claims to represent. This is not a question of resettlement per se but one of democratic governance and appropriate application of change and transformation.

Obviously, proliferation of Slums is a key characteristic defining all cities or urban towns of the so-called under developed or developing world. Among urban towns across the world that are known for their slum communities, Addis Ababa stands very tall (like or otherwise its recent few high rises that are disarming keeping people out of the slumscape vista filling up key highly placed areas of the city) with its many peers in Africa and Asia. Where the development index is to be rewritten in light of people's past, present and the future they are directly (individually and collectively) responsible to define, it is imperative to verify whether the infrastructure oriented or limited variables definition of the index qualify to be correct in labeling countries and by that people as underdeveloped in comparison to their fellow citizens in the developed side of things. This is a finding of a seasoned team of researchers at Harvard who questioned whether the future the world's reportedly poor citizens choose to construct for themselves needs to be modeled by the existing development or modern paradigms. The reason efforts of government to date to transform

slum communities into decent citizens failed may primarily be due to lack of motivation and willingness of these communities to change where the direction of this change remains to be artificial/superficial or materialistic that is not in alignment with their deep seated desire as humans or as they stand, human like beings (humans living in inhuman condition). The study thus does not claim to be comprehensive or holistic where it cannot address this explicitly tacit and fluid state of affair if not calculated right intention/paradigm of citizens who are known as slum residents/communities about the claimed suffering of whom many other citizens are passively reluctant to be concerned with for reasons they claim to know but cannot say officially. However, recognizing and appreciating this variable is one step forward where the study needs to check and recommend as a primary and integral element of any feasibility oriented investigation. In so doing, it strives to explore (or seek the mechanisms of exploring it, the mechanisms this too obvious but deeply hidden need of communities can be addressed succinctly including by investigating and acting upon the deep seated thoughts and aspirations of these slum communities. No human being can choose to be a member of a slum resident/community in this time age having healthy faculties and thus rationale understanding of the need to pursue a decent life.

Having in context traditional indicators of defining cities and its inhabitants, Addis Ababa, the capital city of Ethiopia, is reported to be a home or an uncanny shelter to an estimated 4 million Ethiopians among the reported total citizens of the country which grew into 100 million in few years while their economic standing as expressed by their lifestyle remained the same, in its lowest state. Even though it is argued that this figure is reported to be high for the economy and size, it remains so only with the traditional scales of measurement that are questionable at best. Generally speaking, Addis Ababa seem to share the common characteristics of its poor peer cities across the world. But, where one delves deep into characteristics of slum communities, there are differences that need to be considered in the investigation where lessons from other areas was meant to be customized and applied here. Common characteristics of abject poverty define this capital and international city (being the seat of Africa Union and many international Organizations). Seven out of 10 residents of the city live in slums for generations now which doesn't qualify to be made up of housing units meeting too basic standards even if they are homes these communities claim treasure where the reason for it remains a broad day light anomaly or unchartered territory for citizens, their leaders and most disappointingly for its highly placed scholars/elites. They live in extremely poor or rather correctly in inhuman living conditions/standards (where 35% of solid

waste is not collected and this figure maybe even higher where only 9% of the built up is connected to a sewer system) for any external observer even though that may not be how these communities see their state of affair (UN-Habitat, 2014). Cost of living is impossibly high for the City's hopelessly poor (reportedly) communities where 4/10 are unemployed and 9/10 are underemployed which is as good as unemployed thus raising the question (re presence of an unexplained anomaly) of how these citizens survive the day not to mention all these years of misery in the absence of help from the government and yet they remained or continue reproducing. This brings up a question on the mind set of slum communities and may be a question on a possible presence of a hidden anomaly that needs to be investigated and understood where governments remain hopeful (according to MDG's and other plans of action) to bring change (UN-Habitat, 2014) even if they failed repeatedly for many decades. Governments (the rhetoric that governments are nothing but representatives who execute the will of the people) need to ask themselves whether they have understood the intention and ability of citizens they continue to undermine. A recent example in Addis Ababa is that the City is demolishing three still fresh buildings (around 'le gare' area) to create space for the new mega project an investor (a standalone) is set to launch. These buildings are near a main highway and occupy very insignificantly little area with little relevance to the project as compared to the large size the project requires or is meant to be setup. Addis Ababa City Government is not a detached from reality government in terms of the big picture and in that its budget where its many citizens (collectively powerful) remain in slums and shanties because they are unable to afford decent housing within the parallel that government they elected doesn't (and can't) have the money (and may be the willingness) to construct new decent houses for them. There is a plain in sight anomaly in this scenario too that needs explicating if not explaining. The situation or the status quo is expected to remain so in the foreseeable future or for quite good time to come. Hence, it goes without saying that the City Government cannot afford the luxury of demolishing these buildings (even if there may be an argument for it in light of enforcing sustainable change or rather correctly forcing it into people) while its too many, silent even if not voiceless, slum residents remain in inhuman and indecent conditions whether they care or not to remain in such a state along with their offspring's they brought to this world with indifference that should be seriously questioned. It rather should resettle them in to these buildings which could have accommodated thousands. In fact, if any immediate measures are to be taken, all government (and if necessary privately owned ones' too) offices must be vacated and used for

resettling all residents of the city in slum quarters that being cannot be a choice of these communities alone but all other residents of the City who cannot lead a healthy life watching their fellow citizens live in such in-human situation.

Recent development interventions in sub-Saharan Africa have involved government sponsored displacement and resettlement (Pankhurst A, 2009) only the scale of which is as good as negligible and the application still questionable. As the hushed saying goes, Ethiopia is no exception; thousands of people are reported to be experiencing displacement because of urban redevelopment programmes (Abebe, 2010). The majority of these people are the so-called urban poor who have indifferently occupied neglected urban quarters, often in inner city places. However, whichever way one or they themselves sees it, they are better off. The precise number of displaced households by urban redevelopment projects in Addis Ababa remains unknown or rather deliberately hidden/undisclosed. However, the social and economic costs for families claim to be directly affected by the redevelopment projects are gaining serious concern. It is recognized that urban development has positive and negative (unintended) outcomes. For example, it has been argued that slum resettlement fosters economic growth through the provision of land for private investments (Cernea, 1997) where it is applied with the right mind-set and intention.

Urban redevelopment also provides a better standard of living and infrastructure for residents (Jha and Khosla, 2005; Dupont 2008). Some of these benefits have also been mentioned in urban development policies in Ethiopia (FDRE, 2007; Ministry of Work and Urban Development, 2008). In Addis Ababa, although some households benefited from the relocation program that promised improved housing and services (Koenig, 2009), the socio-economic consequences of slum resettlement are not always optimistic. More often than not, relocated households pay the price without reaping significant benefits from the redevelopment activities (Parasuraman and Cernea, 1999). According to informally obtained or unqualified opinions, forced evictions and relocations that are made without the consent and direct participation of residents destroy people's traditional styles of lives. They are moved away from their areas of work; their social networks are destroyed and the housing and infrastructure they have built up with their savings are lost (Kalayani, 2006). Studies have revealed that slum resettlements are occurring with a high degree of frequency, and they impact the affected groups in profound ways (Scanlon and Devine 2001, Jha and Khosla, 2005). These studies reveal that displacement results in not only the loss of low-income people's

shelter (Couch, 1990) but it is also costly from economic and social perspectives (World Bank, 2004; Wei and Bachir, 2006). Economically, the consequences include loss of income, such as home-based small businesses and clients and site-related opportunities (Koenig, 2009). The researcher however doesn't hold the opinion that these seemingly generic at best reports are indeed true in the case of Addis Ababa and hence questionable seeking another investigation by independent bodies.

It is argued that unemployment among the resettled is common because of relocation to relatively remote peri-urban places which are far from established sources of livelihoods though this lacks concrete or empirical rationality. The long distances to former work places typically prohibit travel due to time constraints and additional expenses. Well, a question comes into mind with regard to this finding where one finds out what indeed gainful employment or income these residents were reporting to make which is as good as negligible. Furthermore, slum settlements contain socially cohesive groups of people (Couch, 1990) which are structured by considerations of survival (Koenig, 2006) even if this cohesiveness cannot be healthy but forced in them and is thus questionable. In the case of Addis Ababa, many of the current slum communities came to reside in them long after the slums were in place. They are properties (even if their existing value does not match any civilized or modern societies definition of housing save the value of the land which is but the property of the government) which once belonged to feudal landlords and confiscated (since the notion nationalized cannot be appropriate for a communist and at that lost to itself regime) by the communist regime that, allegedly, came to power toppling the monarchy. There is but an unexplained anomaly in the entire scenario that needs explicating if not explaining, officially if not in the private/discretion of citizens with multiple self-defeating or conflicting identities. Unlike the case in many other similar countries, slums in Addis Ababa/Ethiopia exist on a land that is currently owned by the government where majority of the so called houses on these government lands are rented by the government to the residents with an amount that is negligible compared to the current market-driven house rent. In Ethiopia, various traditional organizations exist in both urban and rural environments (Damen and Pankhurst, 2000). Examples of such associations in Addis Ababa include community-based social organizations (burial and church based); social and religious gatherings (Mahber in Amharic); memberships in the local parish (Sebeka ‘Gubae’ in Amharic); and economic saving groups. As income is affected (even if the data on the significance of the income remains negligible or as good as zilch), resettlement

tends to destroy or strongly weaken the function of social systems (Couch, 1990) that serve for instance the provision of funeral insurance (Pankhurst et al. , 2006) and informal savings associations, even if this is a finding that begs further or another independent investigation to explain the presence of an unexplained anomaly, as pointed out repeatedly in the preceding paragraphs.

With the above context, a critical issue that was meant to be addressed by the study is affordability of resettlement or replacement houses like condominium houses which are basically built on the basis of providing shelter for the poor and lower income groups of the people. According to a UN HABITAT (2017) Report, out of the 992 condominium owners who participated in the study, 48.7% spend less than 25% of their income on housing. The finding can only be acceptable provided that respondents report their income honestly, which is a too farfetched or uninformed expectation or scenario. On the other hand, 41.3% of the respondents spend more than 30% of their income on mortgage. As a result, the latter are burdened and severely stressed to keep up with their monthly payments. On the same report it says that, it must also be pointed out that, due to low incomes, a large majority of the urban poor can barely afford the minimum down payment of ETB 65,000 for a studio apartment in the highly subsidized condominium scheme. Accordingly, out of 1,184 current condominium unit owners who participated in the survey, 528 (44%) households are of the opinion that the condominium housing schemes are unaffordable. What else can they report but exactly that considering the above potential or rather correctly too obvious for all citizens income underreporting scenario, a very sensitive area about which the government as much as the country's so-called scholars/elites remains indifferent at best.

1.2 Problem statement

Presently, Addis Ababa is undergoing rapid socio-economic and spatial change. These include the construction of roads as well as high rise buildings that once characterized the modern, western world (UN HABITAT 2017). On the other hand, urbanization and unprecedented population growth over the past decades have created enormous pressure on Addis Ababa’s capacity to provide affordable housing and access to basic services for the citizenry, especially for the low-income households. The gap between demand and supply of land and housing is growing day by day (Eshete and Teshome, 2015 cited on UN-HABITA 2017).

It is however an old City that remain unlucky to benefit from the experiential knowledge fellow humans have come to create for themselves thus to enhance their status as evolving or changing to the better human beings as evidenced by today's modern cities of the world. Unlike this painful fact on the ground, its officials to date including its Mayors in recent times claim that the City is undergoing rapid socio-economic and spatial change. Among other indicators, its age old slums and squatters testify otherwise. For the shallow or deliberately petty or passive observer, roads and high rises (with its first skyscraper of 48 story's high to be operational soon) that appear to mushroom in major locations of the City seem to report significant change to the better even if many argue that this change is disarming or superficial rather than encouraging. What is indeed encouraging is very recent real estate/private developments in some localities of the City which, for the first time, clearly seem to indicate the potential possibility of bringing change. Income wise, those who are involved in the development of these new sub cities are not people with any significantly set income groups/status as compared to many of the city's residents. What is different about them is their motivation, decision and commitment to real change.

Unplanned urbanization and unprecedented population growth over (largely an influx of poor rural citizens coming to the City with their traditional attitudes, practices and economic standings) the past decades have created enormous pressure undermining the real meaning of the name the City is known by. For a City that hopelessly failed to meet the basic needs of its original inhabitants, its capacity to provide affordable housing and access to basic services for its residents, especially for the low-income households, is a remote possibility to realistically attain. Statistically speaking, the gap between demand and supply of land and housing remains widening (Eshete and Teshome, 2015 cited on UN-HABITA 2017). Age old slums and their proliferations in other forms and shapes like more and more homeless people joining the streets of Addis and more dependents or inhabitants joining existing slums freshly or as offspring's, continue to paint a depressing and dull picture of the City. One needs not go deeper to see the sad state of the problem but walk on the streets of Addis to see residents and illegal peddlers and beggars (the City has passed a law prohibiting Begging and using open space of all residents as homes or rather correctly as permanent shelters) with ragged features and unhealthy mind-sets 'successfully' heralding hopelessness and despair. More than 80 percent of Addis Ababa is made up of slums (UN-Habitat, 2004) with 70 percent of this comprising government owned rental housing (UN-Habitat, 2011). The existing slums in the inner-city, which are results of haphazard development regardless of the

city's Master plan were identified as a setback to achieve the vision/mission and goals set by the city (Ezana W, 2011). These slum areas are characterized by overcrowded neighborhoods with no or little basic infrastructure and municipal services, poor hygienic conditions, lacking safe drinking water and sewage (Habtamu A, 2014) to mention few of the obvious facts notwithstanding the ill-set or deliberately wrongly constructed homogenous across the board mind set and thus attitude, motivation and commitment of slum residents who are jealous at best of their fellow residents who strive to usher in change and better times in their attitudes if not practices. No government of any kind or citizen of any kind who is committed to better times can bring in change where these backward mind-sets remain unchanged. Thus, the help the City needs requires the commitment of its good citizens across the country and that of fellow humans in the developed world. This is wanting for all cities across the world who are in a similar state. The truth that all humans (all Citizens of the World) have only One country (re the overriding notion of Country=World maybe the only correct future humans strive for save that being undermined by governments who claim to be developed) to share must be-as it would be-a fact of life for every human being in attitude and practice thereof.

The most common reaction (the holistically sustainable motivation and nature of it is questionable) to such settlements has been, therefore, to undertake large slum clearance projects (Tsegaye, 1998). Similarly, relocation had been the selected, and is an ongoing, slum redevelopment project in Addis Ababa (Habtamu A, 2014). The two most prominent inner-city redevelopment practices were The Sheraton Addis and Economic Commission for Africa (ECA) redevelopment projects. The former project was undertaken to construct the five-star Sheraton Addis hotel (Ezana W, 2011). The relocation started in 1992 and most of the people were relocated in the years that followed where few residents were relocated on a phased basis or in subsequent years. The process ended by relocating 707 households who were occupants of the popular slum site in the City. The whole process was managed and financed by the developer in collaboration with the City government and of course the residents of the slum who opted for a real change. The developer made agreement with Addis Ababa city government to construct relocation houses in the given plot and to relocate the people (Lishan Seyoum, 2010). The relocation has improved the housing condition of the former slum dwellers where it has been criticized (though it may not be clearly and adequately qualified re where they remained there in contrast to the change in their living condition basic necessity that is met by the relocation one way or another) by many people that it

adversely affected these former Slum residents assuming that they have a modern humans' mind/capacity to understand and strive for this need. The houses built for displaced families are in the form of low-cost condominium apartments located in fringe lands which are found on an average of 20 km from the center. The sites are found in the new peri-urban development areas, where there are few activities of the type in which the relocated people used to be engaged, the productive nature of which is questionable at best. Furthermore, physical and social infrastructure is available to a limited degree (Addissie, 2007; UN-Habitat, 2007), which is also questionable the state of affair they were in for too long, unacceptable at all costs, thus the argument of this researcher that all residents must be resettled in government buildings/housings immediately where these buildings/offices needs be converted into housing units where another alternative must be sought to accommodate government workers. The finding that inner-city redevelopment recent experience in Addis Ababa was highly motivated by private investment and did not give room for affected group participation in the process (Gebre Yintiso, 2008) is also questionable seeking further investigation set in a different angle and tone by an independent body. The slum redevelopment approach in Addis Ababa is thus an imperative intervention that often requires a certain amount of population displacement (Patel et al. 2002) which but can be resolved by an on-site vertical resettlement where commitment from all stakeholders is in its right place. To overcome the above relocation problems, The Federal Housing Development Policy recommends on-site resettlement of residents of the redevelopment either on the low-cost house built by the government or by organizing them into housing cooperatives (Ministry of Works and Urban Development 2009) whether it is financially feasible for the government to develop slum areas and resettle the residents in low cost houses which are affordable (or can be made affordable) by the people. the government and people of Ethiopia are enjoying huge support from global development partners such as World bank and other international private investors that are committed to invest meaningfully on real change in collaboration with the government and the citizens at large, not also forgetting the strong potential of Diaspora communities in different corners of the world who would like to invest here where the governance situation/landscape changes.

1.3 Objectives of the study

1.3.1 General objective

A feasibility study is an important management tool providing multiple forms of risk control over several subsequent stages of the development process (Miles, M. E., and Berens, G., and Weiss, M. A.,). The overriding objective of this study is to investigate the feasibility of on-site resettlement housing project. Towards this end, the study deploys housing affordability as a one benchmark and 'Abinet' area as a notional site for the case study.

1.3.2 Specific objectives

This general objective can be broken down or organized by way of the following specific objectives that collectively contribute or generate information to address it:

- To estimate the residents' ability to pay for new housing;
- To taste the viability of the project with regard to providing affordable housing;
- To compare values created with the development costs of the project; and
- To recommend potential development opportunities for the future.

1.4 Study/Research questions

- How much is the residents' ability to pay for new housing?
- How is the project viability regarding provision of affordable housing?
- What are the values created in relation to the development costs?
- What are the potential development opportunities created?

The following research questions are also addressed indirectly or as issues related to the above key research questions arise:

How eminent is the 'slum' problem in Addis Ababa? Do slum dwellers recognize the insufficiency of their environments and what are their recognized needs relevant to their housing and environment? Are slum dwellers open to the idea of a neighborhood redevelopment and are they willing to participate in the process and what is the feasibility of community participations? What are the residential aspirations of slum dwellers? Are there laudable economic indicators that could justify the redevelopment of slums?

1.5 Scope of the study

Geographically the study is limited to Addis Ketema Sub city, Woreda 01, and in a locality of Slum area/community that is commonly known as Abinet area locality. This area is old inner-city residential neighborhood characterized by its slum settlement and identified as a potential redevelopment area among similar others as identified by the City government. The study area is strategically located next to Merkato (the largest open market in the Country and maybe in Africa), as a result of which the land value is among the highest in the City where it is located in a main vibrant business district of the City.

Thematically, the study sought to focus on the following four issues all of which are applicable to the identified study area, Abinet area of Woreda 1. First, formation of a systematic approach for feasibility studies of on-site resettlement housing development project. Second, estimating the residents' ability to pay for new housing. Third, comparing the values created to total development cost of the project. Fourth, identifying and recommending potential development opportunities for the future.

1.6 Significance of the study

A feasibility study is a preliminary study undertaken to determine and document a project's viability within the discipline of planning, organizing, and managing resources to bring about the successful completion of specific project goals and objectives. The results of this study will be used as input for go/no-go decision of redevelopment projects and to identify future development opportunities. If the findings of the feasibility study attest to the project's successfulness from the outset, it can be implemented according to plan expecting to meet the objectives the project is set out to address. Among others, the result of this study will help the government and local policy makers to use resources effectively and meet the need of communities and all other citizens of the country who directly and indirectly contribute to the project. It will also provide a basis or inputs for other similar research work in the future.

1.7 Limitation of the study

Like many other studies, this study has few limitations that needs to be looked into systematically to prevent and minimize potential risk of bias. Hence, it was the concern of the study to identify these pre-hand and work against them. A critical challenge for this study was the availability of

relevant and satisfactorily valid literature and source documents especially, local literature and feasibility studies -that meet international quality standards- in relation to housing development in general or on-site resettlement projects of such nature and characteristics in particular. The study attempted to fill the gap in this regard by harnessing and harvesting expert knowledge (even if not published) of the researchers teaching staff and other researchers who were involved in similar work. Within this broad remit, easy availability and accessibility of up-to-date official market data about price of construction materials, which is a critical input to realistically estimate development cost. The consultant made use of his own and others' knowledge and experience to establish realistic market prices where effort is made to minimize the potential risk of using fluid or anecdotal data by employing cross-checking mechanisms. Among others, the researcher employed methodological triangulation to cross check the information collected by such means. A potential limitation that was carefully attended to come in the form of assessing the economic status of the residents in the study area and their orientation, opinions, attitude or motivation and commitment for redevelopment or on-site resettlement. Among notable measures that helped minimize risk were that the slum communities submitted an official petition seeking help to move on or to collaborate with the government's plan of action for resettlement and redevelopment.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Background and Context

Creating comprehensive and holistic understanding with regard to required knowledge (that is harvested from global and local literature) concerning on-site resettlement within the broader remit of re/development and establishing a theoretical or conceptual framework (and customizing it for this particular study) to carry out feasibility oriented investigation of the project so as to generate data that meet quality standards is the objective of the literature review the study employed. For the sake of clarity, this chapter is divided or presented in three systematically set (building and feeding each other) main categories starting with a section displaying key introductory elements. The second section presents the researchers thorough investigation of relevant literature where standard tools of doing so are deployed to attend to data and knowledge from a representative set of available literature in the subject. Soliciting or generating data and knowledge from the scientifically selected set of literature or secondary sources of data, was carried out by employing known and accepted scientific techniques. By way of this approach, data was generated on the following set of elements or issues/domains and platforms or frameworks that helped to establish a background, context and perspective in addition to contributing input (including best practices across the world in addition to local experiences/knowledge) for the research to process, filter, distill and create knowledge thus to conceptualize, formulate and forward or suggest (with accompanying arguments) relevant and valuable findings, conclusions and recommendations thereof: Addis Ababa City Administration and Administrative Hierarchy; Definition of Urban center and inner-city; Concept of slums; Housing development trend; Strategy and challenges related to housing provision in Addis Ababa; Role of Addis Ababa city administration level slum upgrading; Organization of upgrading projects; Slum upgrading experience in Addis Ababa and its consequence on livelihood of its residents to whom it is accountable; Best practices on urban redevelopment from abroad and lessons learned from it that can be used; On-site resettlement and experience in Addis Ababa; Definition of housing affordability and its measurement; Feasibility analysis and finally or feeding into it, lessons learned from the whole review. The above process gave birth to and/or referred the study to a third section of this chapter, Conceptual framework which endeavored and accomplished review of appropriate theories and models on the basis of

which the author derived or developed a customized theoretical and conceptual framework that is systematically applied or used to test the feasibility of an on-site resettlement housing project viz-a-viz the selected case in point project and implied findings to similar projects at large.

2.2 Introduction

Ethiopia, the second-most populous country in Africa, has an estimated population of 100 million (Central Statistics Agency, 2014). Accordingly, as it was reported time and again, research after research, the Agency confirmed, once again, that majority of Ethiopians or almost all of Ethiopians (since their urban fellow citizens who came from rural localities without any plan of becoming an urbanite) still remain locked in their rural settings/localities where they may be better off than transform themselves into hopelessly lost urbanites leading inhuman lives. The country's urban population more than doubled from 4.87 to 11.86 million between 1984 and 2007 and, growing at a rate of 3.8% annually where that only meant size not improved quality of life. This figure is expected to triple by 2037 (World Bank, 2015) without any assurance to accommodate the unhealthy at best sheer increase in volume. The level of urbanization in Ethiopia currently stands at 19%, low even by sub-Saharan African standards. However, the rate of urbanization is expected to accelerate at about 5% annually (World Bank, 2015) even though that is so at the expense of compromising the notion.

The government adopted a first national urban development policy in 2005 which puts urbanization and industrialization at the center of national development efforts (Ministry of Finance and Economic Cooperation, 2015). The major policy shift towards urbanization and industrialization has significantly contributed to rapid transformation of the Ethiopian economy, resulting in a noticeable shift in economic sectors' contribution to the GDP away from agriculture towards services and to a lesser extent, manufacturing (World Bank, 2015).

High public investments in infrastructure projects have significantly contributed to subsequent economic growth. Expansion of urban infrastructure investments in particular demonstrate the government's commitment to transforming Ethiopian cities' economies towards providing better business environments and becoming nodes of innovation and economic exchange. This comes with a view to enable Ethiopian cities better access and exploit opportunities of the global economy (Ministry of Urban Development, Housing and Construction, 2014).

As part of the government's ambitious plan to achieve 'middle income country' status by 2025, Addis Ababa has consumed if not benefited from huge investments over the past decade. UN HABITAT (2017), in concurrence with the Government on play for more than 30 years now, argues (against the backdrop of an opposite perspective if not opinion as much) that massive urban renewal and redevelopment projects were implemented and are on-going across the city to improve its competitiveness as an international business destination in addition to being a capital city representing the hope and aspirations of its reportedly poor citizens, in a bid to bridge the gap or unmet need in terms of the apparent or persistent (without losing sight of) huge backlog in affordable housing and basic service delivery through accelerated investment in infrastructure and public housing programs (UN HABITAT, 2017) which is not a standalone or separate state of affair but an integral component of economic and social development.

2.3 Understanding Informal Settlement in Broad sense

2.3.1. What is a Slum?

Ideas vary greatly about what "slums" are, and there is no single, universal definition in use. The only characteristic that is generally accepted is that slums are neighbourhoods that are in some respect sub- standard. UN-Habitat's definition of a slum is the most common and widely used around the world. While a global definition may fail to account for the nuances of particular slums in certain cities and countries, a definition with relevant indicators is important when attempting to measure the growth or decline of slum populations, monitor the effects of policies and programs and will permit cross-country comparison. UN-Habitat defines a slum as an area that has one or more of the following five characteristics (UN-Habitat, 2002c: 12):

- Poor structural quality of housing;
- Overcrowding;
- Inadequate access to safe water;
- Inadequate access to sanitation and other infrastructure;
- Insecure residential status.

A slum is therefore deemed to consist of a household or a group of people living under the same roof lacking one or more of the five amenities. The UN-Habitat definition is therefore strongly underpinned by a rights-based approach to the universal fulfilment of the right to adequate housing. To the above definition the Cities Alliance adds that slums do not have basic municipal services

(such as water, sanitation, and waste collection), schools and clinics within easy reach, safe areas for children to play and places for the community to meet and socialize (Cities Alliance, 1999: 1). Depressed urban communities can be broadly defined as those areas characterized by:

- Significant lack or absence of basic infrastructure services, including access ways, water, drainage, sanitation, electricity, and social facilities and services;
- Unclear or insecure tenure of land;
- Low levels of income and dependence on informal work opportunities.

The physical and social features of depressed communities frequently vary by age of settlement and location in the city:

- Central city slums are often characterized by high densities (owing to the high value of land), older structures, and higher proportion of renters. They often contain some of the traditional residents of the city, although many will have moved and now rent their buildings.
- Pocket and linear slums and shanties are found throughout the city, often built on the rights-of-way of public infrastructure, and are invariably illegal (squatter) neighborhoods. Where they impede the operation and maintenance of the infrastructure, they are justifiable candidates for removal, but care should be taken to ensure that inhabitants are resettled nearby or close to their employment. Inhabitants of these settlements tend to be among the most destitute of the poor and rely on occasional employment as laborers, market vendors, and small informal services to nearby higher-income communities.
- Perimeter/peri-urban shanty settlements emerged most recently, usually created predominantly by rural in-migrants who may group themselves by regional or ethnic affiliation, although the settlements may contain a proportion of older residents who moved in after the demolition of their homes in the inner-city slums. In comparison with central city slums, perimeter urban settlements are located on larger land parcels and thus tend to be fast-growing and lower-density towns. The landowners may be government agencies (or private owners) that lack the capability or will to patrol the areas or evict squatters; sometimes private owners have informally leased land parcels to the occupiers. Most residents occupy the structures they have built, and the proportion of renters is low. The occupiers often find employment in the emerging commercial and industrial developments of the city's suburbs, or they may shoulder the high time and cost to commute to more central locations.

2.3.2. Slum Typologies

Over the past five decades typologies of slums have been devised in an attempt to categorize and identify their underlying processes, problems and attributes. Charles Stokes (1962) proposed a distinction between "slums of hope" and "slums of despair" where the former represented poor neighborhoods in which the residents were aspirational and over the course of many years made measurable progress in improving their homes and environments. The latter, however, were slums which were in continued decline for a number of social or economic reasons. Developed from his Latin American field experiences, John Turner (1976) emphasizes the positive aspects of low-income neighborhoods. He argues that the urban poor typically pass through three phases as they move from living in slums to lower middle income neighborhood (which they develop themselves). Poor families in each of these phases he calls "bridge- headers" (a migrant family whose priority on arrival in the city is to find a [temporary] place to live close to employment opportunities), "consolidators" (occupying a piece of land on the fringes of the city and consolidating its place in the city), and "status seekers" (aiming to legalize tenure, acquire urban services and extend and improve its housing). Turner's views on housing and slums have been very influential over the last 35 years and provide the logic behind many programs to upgrade slums. The 2003 Global Report on Human Settlements (UN-Habitat, 2003) reviewed 29 case studies of cities worldwide and found that in general two types of slum were distinguished by the respective authorities: "slums proper, on the one hand, and shanties or spontaneous housing and urban development, on the other". The report noted that this distinction was often made on the basis of combinations of physical location and legality. In this typology the term 'slum' frequently refers to inner-city residential areas that were originally legally built several decades ago but which, over time, have progressively become physically dilapidated. These are Stokes' "slums of despair". The category of spontaneous housing refers to squatter invasions and illegal or semi-legal urbanisation or land sub-divisions on the urban periphery. It has been argued that the homogenization of poor settlements of all kinds in the category of 'slums' fails to recognise their distinct characteristics and possibilities for improvement. (Huchzermeyer, 2011: 2-11). This "catch-all" definition characterizes all slums as failing to meet established standards. Therefore, when governments are making great efforts to meet the challenges of the millennium development goals and produce cities without slums, a universally applied name like this may lead them to choose generalized eradication rather than upgrading as strategies.

2.3.3. What Causes Slums?

Slum formation has a number of causes. Poor government policies, the failure of the market and government to meet the enormous demand for decent and affordable housing, low state investment in infrastructure, an ineffective urban planning system and a misdirected regulatory system as well as the more general causes of urbanization and poverty, are often cited as causes of slum formation. Rural-urban migration has contributed to the housing shortage. Governments have been unable to anticipate and meet the housing demand of the vast numbers of migrants who have arrived in a relatively short space of time. The majority of rural-urban migrants tend to be poor and are unable to compete successfully for good quality land and housing. They are obliged to accept sub-standard accommodation or seek relatively cost-free solutions such as squatting.

The urban planning system in most developing countries is not geared to preventing or coping with slum formation. Urban planners and government officials often do not see slum neighbourhoods as part of the city, and therefore do not recognize the need to share citywide physical and social infrastructure networks. Physical planning should be integrated with city development planning and match economic and social development plans, including housing delivery, to projected needs for the population as a whole. At present the regulatory system in many countries favours the rich at the expense of the poor. Housing standards and building by-laws are achievable for the well-off but are not attainable for the poor. Construction outside these regulations automatically classifies the dwellings as ‘illegal’ and this brings with it insecurity and the fear of eviction. In such circumstances, the poor will not invest in permanent materials - when they can afford them - and so their houses and settlements are condemned to remain sub-standard. Another major factor in the formation of slums is a shortage of affordable land. Land is difficult to obtain; it is often under-utilised (or held speculatively) or the law protects it from use by the poor (e.g. through property law or planning regulations). The supply of low-cost housing needs to be increased. The market generally fails to provide for the poor because there is relatively little profit to be made and the risk is perceived as too high. One way to stimulate housing supply is through self-help construction either in the form of sites and service schemes or slum upgrading. In both cases government is required to make land available (directly providing it or through the legalization of illegally occupied land) as well as providing physical infrastructure. Investment in urban infrastructure lags behind the growing need for it. As long as settlements are classified as illegal local authorities will often claim they cannot provide infrastructure. Both the public and the private sector need to

cooperate to devise mechanisms which produce a financial market that can provide mortgages and loans for low-income people to buy or improve their homes. In 1977 Chile launched its National Housing Programme which focuses on financial subsidies, obligatory savings and housing loans. In Thailand poor communities are provided with state loans and grants which they manage themselves under the Baan Mankong programme. The Moroccan government has established a mortgage guarantee scheme for banks' lending to lower-income groups and has created a guarantee fund to support micro-credit lending for housing to the poor. Unfortunately, these innovations are the exception rather than the rule. The overall poor management of the housing sector by governments is also a major factor in slum formation. The seminal report The Challenge of Slums noted that slums "are not just a manifestation of a population explosion and demographic change, or even of the vast interpersonal forces of globalization. Slums must be seen as the result of a failure of housing policies, laws and delivery systems, as well as of national and urban policies (UN-Habitat, 2003: 5). Historically governments have responded to the problem of slums in seven main ways: ignoring them; using slums for political purposes; eradication, eviction, and displacement; relocation; public housing; sites and services schemes and upgrading.

Slums are tagged as home for the urban poor and have been described as one of the world's most life threatening environments because of their extreme poor environmental and housing conditions. Their existence has often caught the attention of political leaders because of their obvious drag on the national development agenda of developing countries. The nature of the slum problem has often led to calls for "slum-free" environments from politicians and development practitioners alike. Yet, from the perspectives of slum dwellers themselves, slums are places of socio-economic livelihoods in which they do recognize the insufficiency of their environments but possess limited capacities in changing these conditions. They appear crippled by the hopelessness of poverty and inadequacy to cause any such dramatic change in their environments. The United Nations millennium development goal 7 target 11 gives the task of achieving significant improvement in the lives of at least 100 million slum dwellers by 2020. This emphasizes the world's recognition of the need to actively intervene to bring about improvement in the lives of slum dwellers. The developing world is urbanizing at an unprecedented rate. These impoverished and disenfranchised members of society are also subject to health-threatening living conditions, conditions that create enormous social and political costs. It is therefore necessary for

governments, civil society, and the communities themselves to make significant and sustained efforts to address both the causes and results of neglect.

Figure 2.1: Different types of slums in different countries

San Salvador: deteriorated formal housing in city centre. Photo: © Reinhard Skinner

Cambodia: deteriorated formal, multi-storey buildings. Photo: © World Bank / Maseru Gotu

South Africa: illegal housing in a settlement on the urban periphery. Photo: © World Bank / Francis Dobbs

Yaoundé, Cameroon: use of traditional, rural building materials which do not conform to city building standards (city centre). Photo: © Reinhard Skinner

Thailand: Dilapidated condition of informal settlement in Bangkok.

Pakistan: Flooded slum. Photo: © UN-HABITAT

Neglect is everywhere apparent: in a degraded environment and low incomes, in the ever-widening gap between the urban haves and have-nots, in increasing alienation and a fraying social fabric, and in the onslaughts of disease and violence that also reach into the urban middle and upper classes. Nevertheless, residents in slums and shanties carry enormous untapped potential. Their contributions to the broader economy are substantial. They constitute the core of the urban labor

force-in services, manufacturing, and construction. Hardworking, resourceful, and self-reliant, the urban poor are willing to improve their housing and environmental conditions through their own investments in labor and capital, provided that barriers to their initiatives are not insurmountable. But these settlements have remained virtual zones of silence- undiscussed and ill-understood by the public. Many governments respond, unhelpfully, by bulldozing entire slums, hoping somehow that the problem will literally go away. It will not. A new slum will grow in its place. The bulldozing policy grew out of aesthetic and zoning concerns, with policy- makers reasoning that large-scale demolition and relocations would inhibit rural immigration. It involved little knowledge or concern for the residents' wishes or for their economic or social conditions. Moreover, slum-dwellers strongly resisted the tactic, which carried huge financial and political costs. Although these tactics are sometimes resurrected by new and often ignorant and even malicious governments, it was apparent it was not feasible or even desirable to bulldoze enormous communities of urban poor; alternative policies were sought. A viable and low-cost solution, acceptable to residents, was to upgrade infrastructure and social facilities while leaving the communities intact or resettling communities vertically in their existing locality.

The study as part of a global literature review attempts to accommodate best practices and lessons learned into the findings or solutions within the on-site resettlement model feasibility investigation/analysis. For example, the study examined a best practice or an innovative model of urban development in Mumbai, India which uses vertical densification of slum areas to free up millions of dollars' worth of land to help create affordable housing stock, high value real estate and to develop civic infrastructure to meet the growing needs of a burgeoning city. Relying on carefully planned and executed community mobilization efforts, slum residents on public lands have been convinced to move into high rise buildings constructed on a fraction of the original area to allow optimum land use while creating more open spaces. The new housing units are constructed by private developers free of cost both to the government and the residents, in lieu of preferential development rights in other, higher-end residential and commercial zones of the city, that help them make a profit on their investment in low-income vertical housing. The model holds tremendous potential for replication in cities around the world.

2.4 Urban center

One can define 'urban center' as a place wherein people, the majority of whom make their living on nonagricultural engagements, dwell in close proximity to each other and where one finds better infrastructure development, a place, in short, where people work and set up their homes (Abebe Z., 2006).

2.5 Inner cities

Deakin, Edwards 1993, defines inner-cities as areas most often faced with a complex web of urban problems combining decayed infrastructure, high unemployment and a concentration of people with social difficulties. Inner-city is an ill-defined geographical area located close to Central Business District of a capitalist city which is usually characterized by dilapidation, poor housing and economic and social deprivation (Johnston; Gregory & Smith 1994). According to Acioly Jr. 1999, the physical, social and economic deterioration in the inner-city among other things implicates the inefficiency and incapacity of the local government to effectively deal with the problem. This necessitates an intervention to address the urban decay, housing and environmental condition.

2.6 Addis Ababa City Administration and Administrative hierarchy

Addis Ababa is the capital and the largest city of Federal democratic republic of Ethiopia (FDRE), and it is the political, economic and cultural center of the country. It is also a city where the headquarters of African union (AU), and United Nations Economic Commission for Africa (UNECA) and various other continental and international organizations are located (AAILIC, 2013). Following the ratification of the 1995 Ethiopian constitution, both Addis Ababa and Dire Dawa are selected as federal cities that are directly accountable to the federal government. Thus, Addis Ababa is a chartered city in which it has the status of both as a city and as a state. Currently, Addis Ababa is divided in to 10 Sub cities which are the second administrative units in the city which are further organized in to 116 Woreda's (formerly known as Kebele), defined or set as the smallest administrative unit in the geographical/administrative organization of residents/the land they occupy.

Accordingly, the administrative hierarchy of Addis Ababa city is setup against these levels or stages: The City, Sub city and Woreda. Commonly shared and separate powers and functions of

each of these administrative hierarchies is clearly stated in Addis Ababa city government revised charter proclamation No. 311/2003. A Synopsis is presented as follows:

City administration/government at the helm of which is an elected Mayor within the model of elected Woreda representatives:

- Issue and implement policies concerning the development of the city;
- Approve and implement economic and social development plans;
- Organize Sub-Cities and Woredas including demarcation of borders and allocation of Budget subsidies to Sub-cities;
- Identify, determine and organize municipal services to be delivered at the level of the City, the Sub-City and Woredas;
- Provide or put in place efficient, effective and equitable services by deploying modern service delivery solutions or systems and alternatives with acceptable standards including schemes that promote and ensure the active participation of residents;
- Administer, lease, develop, sale and collect income from houses nationalized as per Government Ownership of Urban Lands and Extra Houses Proclamation No. 47/1975 and administered by the City Government. this includes other houses which the City Government built or obtained in accordance with other laws;
- Expropriate, in accordance with law, a private property, and/or clear and take over land possession designated as an object of public interest after having paid commensurate compensation;
- The City Council may either establish new Sub City or Woreda or reorganize existing Sub Cities or Woredas taking into account the opinions of the respective residents, suitability of service delivery, urban development plan and changes in the size of the population.

Likewise, the power and functions of the Sub city Administrations is given bellow:

- Administer the Woredas under its jurisdiction;
- Approve the economic, social development and municipal plans of the respective Sub City;
- Allocate the budget set aside to it by the City Council.

Similarly, the Woreda Administration have the function and power to:

- Be a center of development and direct popular participation as well as a station for services that may be delivered at that level;
- Create conditions in which services to residents are availed in their vicinity as close as possible.

2.7 Housing in Addis Ababa

Urbanization and unprecedented population growth over the past decades have created enormous pressure on Addis Ababa's capacity to provide affordable housing and access to basic services for the citizenry, especially for the low-income households. The gap between demand and supply of land and housing is growing every passing day (Eshete and Teshome, 2015 cited on UN-HABITA 2017).

Like many other developing countries, Ethiopian cities suffer from shortage of infrastructure and urban service, urban environmental degradation, homelessness, urban decay and high unemployment (UN-Habitat, 2011). One of the grim problems facing cities is the proliferation of slums. Available data indicate that 80 percent of urban population resides in slum housing that needs either complete replacement or significant upgrading (UN- Habitat, 2007 and 2008). The degree and conditions of slum, however, vary across cities of the country. It is dire in Addis Ababa, capita city, where slums constitute the greater portion of the residential areas. More than 80 percent of Addis Ababa is a slum (UN-Habitat, 2004; Elias, 2008) with 70 percent of this comprising government owned rental housing (UN-Habitat, 2011)

The Urban Development Policy and the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) strategy, have the objectives of promoting the role of urban areas in the overall national development. The policy and the strategy are further articulated in the Integrated Housing Development Programme (IHDP), which has multi-sectoral goals, viz., provision of affordable and low-cost housing, empowering urban residents through property ownership, job creation and income generation, and improvement of quality of the urban environmental, infrastructure development, etc. and the urban renewal programme.

The IHDP and the urban renewal programme have been implemented on a large scale in Addis Ababa and are being rolled out to major cities. The programmes are normally accompanied by

massive infrastructural developments, particularly in Addis Ababa, to link the developed areas to the inner city (Mathewos A., Abebe Z. and Solomon B., 2011).

2.8 Government's housing strategy

Governments are applying different kinds of policy responses towards slum settlement. These ranges from passively ignoring the problem to evicting slum dwellers without protecting their rights and helping them to improve their living and housing condition. UN-Habitat (2003) has identified five policy responses towards slums. These are policy of negligence, eviction, self-help and in-situ upgrading, enabling policies, resettlement and participatory slum upgrading.

The city administration of Addis Ababa is undertaking a massive integrated housing development program to address the acute housing problem of the city since 2006 (Solomon K., 2014). Housing supply is not the only goal of this program; instead its ultimate desire is to use Integrated Housing Development Program (IHDP) as a tool to reduce urban poverty, which is the prime concern of the city. IHDP has primarily aimed to provide mass housing to address the housing problems of the city.

On the report of Ministry of Urban Development and Construction (2013), pressing slum condition and housing shortage were identified as challenges related to housing. On this report housing and slum upgrading were targeted in the GTP where the aim was:

- Construction of 500,000 housing units;
- Creation of 400,000 Job opportunities (housing sector);
- Reduction of the number of slum dwellers by half (60% to 30%)

So as to attain the above target, the Ministry identified four general housing strategies:

- To guide the government intervention and participation of stakeholders in the sector;
- To Integrate and coordinate efforts to enable access to housing by the poor and mid income level households;
- To Integrate the sector with employment creation; and
- To encourage saving and arrange financial schemes.

On the same report, the Ministry listed governments' support and package schemes which include:

- Free land supply;
- Taxation;
- Technical support;
- Establish saving schemes;
- Loan arrangement; and
- Undertake Capacity building.

Considering its relevance with the case study, the shortcoming of the renewal approach and resettlement was dealt with as follows.

2.9 The Role of Addis Ababa City Administration levels in Slum upgrading

Before 2008, the administration level of Addis Ababa urban planning institute which is responsible for the slum intervention in the city was only limited at city level. But, after the introduction of the concept of the BPR (Business Processing Re-engineering) in the city administration, it has distributed down to the lower administrative level, that of Woreda administration. The role of the planners varies with the function of the planning institution they are working for. The following section presents the role of urban planning institute at each administrative hierarchy on slum upgrading (Addis Ababa city Administration, 2008).

2.9.1 At city level

The urban planning institute at city level is organized by three teams namely: Urban plan preparation team, urban plan implementation and controlling team, and urban plan research team. The main tasks of urban planning institute at city level are:

- Preparation of urban renewal plans (Local development plan) in selected areas of the city which are extremely deteriorated;
- Organize urban planning offices in all sub cities;
- Undertaking plan control on buildings getting permit at city level;
- Conducting evaluation and research on the implementation of local development plans which are prepared by city and sub city level offices;
- Organizing city master plan project office;
- Evaluating upgrading projects prepared by sub cities; and

- Distributing approved local development plans to the relevant offices at city level for implementation.

2.9.2 At sub city level

Urban planning office at all sub cities in Addis Ababa city administration is organized in to two working teams: Urban plan preparation team and urban plan implementation and controlling team. The main tasks of urban planning offices at sub city level are:

- Preparation of urban upgrading projects in selected areas of the sub city which are relatively decayed and in a need of upgrading;
- Undertaking plan control on the building getting permit at sub city level;
- Distributing approved local development plans to the relevant offices at sub city level for implementation.

2.9.3 At Woreda level

At Woreda level, the urban planning office was only functional for about four years (from 2009-2013). It is mainly focused on the collection of land related data in the respective Woredas. Currently the office is merged with the urban planning office at sub city level, following the organizational restructuring made by the urban planning institute at city level. The main tasks of Woreda administration with regard to slum upgrading are:

- Organizing public consultation events before, during and after the preparation of the upgrading project;
- Participating in all phases of the project preparation, starting from site selection via data collection to proposal;
- Participating and coordinating in the Implementation of the project.

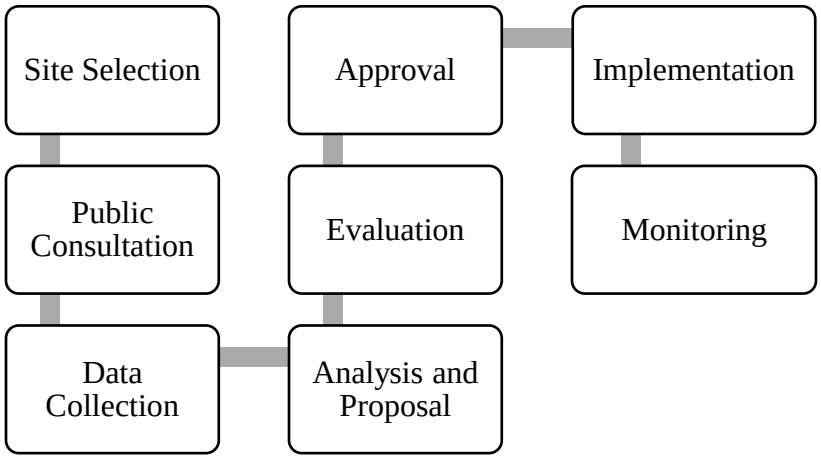
In general terms the urban plan preparation teams both at city and sub city level are responsible for the preparation of local development plans (both renewal and upgrading projects), and distribution of the project to the respective institutions and offices both at city and sub city level. Similarly, the urban plan inspection team at both levels is also responsible to the controlling and inspection of the renewal and upgrading projects prepared by urban plan preparation team, during implementation. The urban planning research team at city level is responsible to identify the main

problems encountered in the local development projects at all phases starting from preparation to the implementation via scientific research.

2.10 Organization of upgrading projects

The urban planning offices in the 10 sub cities of Addis Ababa city are the responsible offices for the preparation of upgrading projects in their respective Woredas. The organization of the project throughout the city is similar, just following the operational manual, throughout all administrative hierarchies. In principle, the Woreda administration offices should participate almost in the whole process of the project. The urban planning offices at sub city level is the coordinator of the project on the process of which urban planning institute at the city level is participating in the technical evaluation of the projects before the amendment process is engaged by the sub city chief executive officer and general manager. The illustration below displays how the urban upgrading project is organized from initial stage of site selection to the implementation and monitoring of the projects.

Figure 2.2: organization of the upgrading projects



Source: Urban Plan and Information Preparation Institute Operation Manual, 2008

The appropriate site selection for the upgrading project is undertaken by the Sub city professionals. Next to the site selection, public consultation program will be held, and the local residents, the sub city and Woreda officials, and the sub city professionals participate in the process. The data collection process for the project is conducted by the sub city and Woreda professionals. Next to the data collection, the analysis and project proposal is carried out by the sub city professionals, and the project proposal is evaluated by the professionals at city level. Finally, the project is approved by the chief executive official and general manager of the Sub city following which the

plan is distributed to the respective offices for implementation. The monitoring of the project is undertaken by the urban plan inspection team at sub city level, and urban plan research team at city level.

2.11 Slum Upgrading Experience in Addis Ababa

Even though, there were some upgrading attempts in Addis Ababa in the pre-1991 period, the experience of upgrading project in a wider scale, and as a major urban development policy instrument for the city is a relatively recent phenomenon. The Kolfie low income housing project was the first meaningful policy measure the Government of Ethiopia has undertaken. The project was accomplished in 1960s, in order to address the slum problems of the Kolfie area through demolishing some part of the area. As a result, 91 households were evicted from the project area to a new and better serviced housing units in the then western fringes of the city (Abebe et al, 2011).

Next to the KolfIe low-income housing program, the Tekle-haymanot Upgrading Project launched in the early 1980s. This project was financed by World Bank and Ethiopian Government. It was the first residential scheme of any meaningful size of the time in Addis Ababa. The selected project area (Tekle-haymanot area) was the highly congested areas having gross population density of 453 individuals per hectare. The overall nature of the Project was mainly focused on improving the health and environmental conditions of the area through provision of better services. Specifically, the project was basically aimed at upgrading access roads, improving access to tap water and increasing household access to sanitary facilities. This involved resurfacing badly damaged roads, reducing the ratio of public water to households to about 1:100, and improving sanitary conditions through loans for the provision of pit latrines with one dry pit to be shared by a maximum four households. The program also made loans available to upgrade at least 205 units, with potential also to include community facilities such as primary schools and market buildings within the project area (Tolon, 2008).

In comparative terms, the participation of local authorities, NGOs and the community in slum and squatter upgrading programs in post 1991 Addis Ababa were better than the earlier periods. The scale of residential upgrading undertaken and the level of community participation in the city was very prominent and interesting. In the post 1991 period, there were two community based slum upgrading programs operating in the city. The first and most important one is conducted by

the municipal authority, and the second one is conducted by NGOs. There were also two principal operators of the slum upgrading projects, under the municipality authority. These are: the Environmental Development Office (EDO), and the Eco-City Project office (UNHABITAT, 2007).

The infrastructural upgrading activities in the whole city was mainly carried out by the Environmental Development Office (EDO) of the Addis Ababa city administration and its agencies at both the sub-city and the then kebele levels. The goals of the upgrading programs undertaken by the environmental development office were the following (Elias, 2008; Tolon, 2008).

- To improve the living and working conditions of the urban poor by improving infrastructure and services;
- To create job opportunities for the urban poor and the unemployed, especially through labor -intensive methods for project implementation;
- To ensure public participation in all essential neighborhood upgrading activities, including problem identification, project design and implementation; and
- To enable the communities to own and manage upgraded or newly built infrastructure and services.

Accordingly, the working arrangement between the office which carried out the upgrading project and the target communities has been very efficient with respect to fund-raising for the residential area improvement projects. For instance, in consecutive ten years between 1995 and 2005, EDO implemented slum upgrading projects worth USD 32.3 million. Community financial contributions in the same period raised at USD 12.95 million. Of this, USD 10.7 million came in cash, USD1.15 million in the form of labor and another USD 1.1million was in materials. Regardless of the varying sizes of the gaps between the plan and performance in the various areas of EDO's activities, the upgrading project had a very effective impact on the living conditions of the residents in its major areas of intervention (UN-HABITAT, 2007).

The Eco-city project was another government driven principal office that operates the slum upgrading activity, under the municipality authority. The objectives of the Eco-city project office was almost similar with the environmental development office, and was concentrated on:

improvement of sanitation, sewage disposal and solid waste management; the provision and upgrading of social services; the creation and maintenance of open spaces and green areas; the creation of income generating economic opportunities; and the provision of vehicular access and drainage lines (Elias, 2008).

Starting from 2008 onwards, following the introduction of Business Processing Re-engineering (BPR) in Addis Ababa city administration, the organizational structure of the city urban planning institution is extended down to the sub city level.

The urban planning offices of the 10 sub cities are, therefore, responsible to conduct upgrading projects and improve the slum situations in the respective sub city. The Non-governmental organizations are also among the key stakeholders participating in the slum improvement activities in Addis Ababa. Most of them have been focusing on infrastructure upgrading and improvement of environmental sanitation. Like the government driven upgrading projects, NGOs also encourage community participation in neighborhood upgrading programs. In principle, therefore, the target communities participate in all stages of NGO sponsored urban development programs, including the raising of what originally used to be something like 10 percent of the project cost in most cases. Only two or three NGOs have been running meaningful, though limited, housing improvement programs. CARE is the most prominent for undertaking rather a large and visible infrastructure upgrading projects (Tolon, 2008).

2.12 Shortcomings of the renewal approach

The adverse effects of the practice of mass demolition of property and forcible resettlement from inner-city areas are well documented regarding the disruption of the informal economy of the low-income groups, increasing burden on the public sector in terms of the provision of replacement housing and services, disruption of the social fabric and links with the past are some of the negative consequences of this approach (A. Gossaye, 2001).

Processes are in focus. Most studies have dealt with problems facing the low-income population and the most vulnerable. *Ashenafi Gossaye (2001),* on his PhD thesis identified the complex nature of Inner-city renewal as a challenge and the low-income population living in central areas are vulnerable to it. On his findings, Ashenafi stated that, the studied example of resettlement showed some strengths; the new accommodation was in general better than the old, but there were several

weaknesses: lack of community participation, lack of well-defined improvement policies and lack of coordination and lack of concern for socio-economic issues. Longer distances to place of work opportunity is problematic for people with restrained resources. Finally, Ashenafi recommended that, for renewal to be implemented in a more integrated way, a great concern for social issues and for the protection of the existing communities must be developed. Citizen participation at all levels of the process is an important factor for a successful renewal program, at the same time to secure a balance between residential and commercial activities.

The other issue is affordability. According to Gezahegn A. & Jan Hesslberg (2013), the condominium housing sector has witnessed several changes in terms of improved shelter with security of tenancy. However, it is widely observed that the low purchasing capacity of the city inhabitants posed a serious problem for relocated households and this raises the issue of affordability of the housing units, that is, the extent to which households are able to pay for a condominium unit.

Despite the government's commitment to provide affordable housing to low and middle income groups, the down-payment and monthly installments are beyond the financial capacity of these groups. People’s ability to afford the houses is also problematic because they must pay for the additional costs of completing the infrastructure in the area. It is a common experience that condominium housing units are transferred to the beneficiaries after 80% of the construction is completed. The beneficiary households are then expected to finish as well as maintain services such as water and electricity within their units. Furthermore, they must also cover the costs related to maintenance of private and communal areas. This ever-increasing construction cost is a major impediment to the poor's affordability of condominium-housing units. This can be shown by comparing the current average selling price with the first round of condominium unit costs. It was ranging from 16,000 birr for a studio unit; 18-27,000 birr for a 1 bedroom unit; 33-50,000 birr for a 2 bedroom unit; and above 50,000 birr for a 3 bedroom unit (Gezahegn A. et al).

A UN-Habitat (2011) study on the condominium housing scheme in Ethiopia reveals that the Local Development Plan (LDP) for *Lideta* displaced 932 households. About half of the households could not afford to purchase a condominium unit.

The other problem is paying monthly installment. The inability to pay the monthly mortgage and service payments forces many households to rent their houses out and to move to cheaper

accommodation where the issue of affordability is closely entwined with the location of the housing. As noted earlier, most of the relocation sites are found on the fringe of the city, while the majority of the city residents were involved in the informal sector within the city. This implies that an appropriate housing location for these groups would be close to their work sites. Increasing distance to their place of work means increasing costs of transportation and travel time that in turn decreases the income available to save for housing (Gezahegn A.et al).

As compared to condominium units, experiences from relocated households indicate an important problem related to the supply of housing. The small size of the bedrooms made it hard to accommodate the extended family members. In the allocation process they were offered opportunities to choose the number of rooms. Poor people with large families could not afford such units, and were thus forced to live very crowded. The percentage of resettled households, who previously lived in single bedroom houses, was 47. This increased in the relocation site to 66% (Yntiso 2008 cited on Gezahegn A.et al).

Additionally, Gezahegn A. & Jan Hesslberg (2013), raised that, failing to consider household size and composition during allocation of condominium, the problem of housing and basic infrastructure faced by poor households is compromising their socio-economic well-being. Limited space, relocation too far away sites and insecurity of tenures due to higher costs, lack of water taps and minor roads, and absence of social services are key problems that are not fully addressed in the new urban development policy of Addis Ababa. Finally, Gezahegn A.et al concludes by recommending urban redevelopment schemes must combine improved physical conditions with both better shelter *and* socioeconomic opportunities. Shelter means not only walls and a roof, it also includes provisions of services.

Elias Yitbarek Alemayehu (2008), in his PhD dissertation identified the tenure situation is a challenge for the possibility of urban upgrading, Where About 50% of the population of Addis, most of whom are low-income, live in ‘un-planned’ and physically dilapidated housing and depresed areas of the inner city and mostly publicly owned (*Kebele*) rental housing. Elias Yitbarek recommended that urban upgrading is a way of managing small changes so those with low income may be able to improve living conditions. The findings give hope for further development of approaches already introduced. Based on the study, further research and action in this important field is recommended.

2.13 Best practice on urban redevelopment

JAPAN: Urban Redevelopment Policy

The Urban Redevelopment Policy is a master plan that comprehensively systematizes measures for urban redevelopment on a long-term basis, thereby aiming to ensure fair guidance and planned promotion of redevelopment. The revised Urban Renewal Act of 1980 has designated urban areas that require planned redevelopment and those that should promote integrated and comprehensive redevelopment and have shown the momentum and activities for redevelopment as redevelopment promotion districts and, areas that falls short of redevelopment promotion districts but are desirable to be developed and expected of development effects as redevelopment guidance districts.

JAPAN: Urban Redevelopment Projects

In existing urban areas, there are, in spite of their urban central locations, many areas that lack infrastructure such as roads, those that are with low land use efficiency and poor urban environment due to their fragmented land use, and those that carry disaster risks due to high concentration of old wooden houses. As for urban redevelopment, the term “redevelopment” may be used in so broad a sense as to cover a case where a landowner promotes construction of fireproof or high-rise buildings by consolidating or converting land use voluntarily in a personal or corporate capacity. In this regard, various methods are utilized. It is, however, difficult to promote redevelopment if depending only on voluntary construction activities in areas where relationships of rights are subdivided or where effective land use cannot be pursued only by private funding. This is not only undesirable for the area but also harmful to the sound urban development.

It is the Urban Redevelopment Project under the Urban Renewal Act that carries out redevelopment in accordance with certain rules of law by setting forth the development of public facilities (e.g. roads) and communalization of buildings as a uniform project while restricting individual building reconstructions. By developing public facilities (e.g. roads) and sharing land use, the Urban Redevelopment Project is implemented utilizing the schemes for relaxation of the floor area ratio that allows improvements to the urban environment, (e.g. designation of high-level use districts) for funding for costs required for communalization of lands and buildings (e.g. support), and for preferential tax treatment. By creating floors that exceed those possessed by the

original right holders by means of high-level land use, the costs of urban development projects are to be covered by subsidies as well as funds obtained by selling those floors (including a piece of land corresponding to the floor).

JAPAN: Relationship between City Plans and Projects

Urban redevelopment projects can be implemented within high-level use districts, special urban renaissance districts or specified district planning districts. Urban redevelopment projects are divided into two types: Categories 1 and 2.There are cases where an execution area and other details are set forth as an urban redevelopment project in a city plan; however, there can be cases where the project is carried out within the execution area and where the project is not set forth in a city plan. Category 2 projects are required to be set forth as Category 2 Urban Redevelopment Projects in the City Plan and allowed to be executed only within said areas while Category 1 projects may be executed without being set forth as Category 1 Urban Redevelopment Projects in the Plan.

JAPAN: Requirements for the Urban Redevelopment Project Areas Designated in City Plans

In setting forth urban redevelopment projects in the City Plan, Urban Redevelopment Project areas must fall under all the requirements i.e. The project is to be carried out within high-level use districts, special urban renaissance districts or specified district planning areas, the ratio of fireproof buildings except old, low-rise, under-used and small-size ones is about one third or less to all the buildings, the land use status is unsound due to matters such as lack of public facilities and fragmentation of land use, ensuring of high-level land use will contribute to improvement of urban functions, the district is a populated urban area that is dangerous in case of disasters or have faulty environment, the area is in need of urgent development of important public facilities (station squares, disaster-prevention parks, roads, etc.) and The area is an urban Disaster Recovery Promotion Area.

JAPAN: Types of Urban Redevelopment Projects

- ✓ **Category 1 Urban Redevelopment Projects**

Category 1 Urban Redevelopment Projects are executed by the method called right conversion. The right conversion is a method of equivalent exchange between rights (original assets) such as

the ownership, lease right and rented house right of land and building prior to the project execution and a right to land and building after the project execution (resultant assets = entitled floors).Among building floors that are constructed by the project (including pieces of land corresponding to the floors), floors that exceed entitled floors are called reserved floors that are sold to obtain the funds to cover the costs of launching a project. In addition, those who do not prefer the right conversion may make a request to that effect, thereby obtaining compensation from the project executor to move out to another place.

- ✓ **Category 2 Urban Redevelopment Projects**

Category 2 Urban Redevelopment Projects are executed by the method that project executors purchase land and buildings within the project areas. Only local governments, redevelopment companies or the Urban Renaissance Agency are entitled to become executors. If the right holders intend to live or run business within the area, floors equivalent to his/her original assets will be guaranteed by making an advance request for obtaining floors of a building to be constructed within the area.

- ✓ **Executors of Urban Redevelopment Projects**

Redevelopment project can be executed by individuals, urban redevelopment associations, redevelopment companies, local governments, urban renaissance agencies and others. Types and areas of projects to be executed by these executors are limited by plans and projects.

2.14 Lessons learned from the best practice

- Redevelopment is worlds' phenomenon: urban redevelopment could be undertaken anywhere at any time so as to obtain the maximum benefit from those strategic areas selected to be redeveloped.
- Inclusiveness: urban redevelopment project should let different concerning bodies to participate in and land and property owners should also cooperate with the executers.

2.15 On-Site Resettlement

Although there is no specific policy towards urban redevelopment, the Federal Urban Housing Development Policy emphasizes the demolishing and redevelopment based on new plan of the inner-city dilapidated slum areas giving particular emphasis to low-cost housing. The policy stipulates the need for affected group participation in planning and implementation of inner-city

slum redevelopment in a way that benefit the majority of these residents. Furthermore, the policy recommends onsite resettlement of residents of the redevelopment either on the low cost house built by the government or by organizing them into housing cooperatives (Ministry of Works and Urban Development, 2009). Though the project was guided by this policy, the focus given to the on-site resettlement was weak as evidenced by the resettlement of the huge majority of the residents in other areas (Ezana W., 2011)

2.16 On-site Resettlement Experience in Addis Ababa

The "Menen" case (Elias Yitbarek, 2013)

This is a real project where on-site resettlement is practiced in Addis Ababa around "Menen" area and was successful. The housing actors and their respective roles in this project were:

- **NGO's**: - participated in providing financial support for the project;
- **Inhabitants**: - participated by saving money in credit association called SACC;
- **Government**: - facilitating the project.

This project covered 15.5 hectares of area and there were 4000 people living in it. Before upgrading was taken place, 654 houses out of which 468 (70%) are owned by kebele's were on the site. This kebele owned house were used as a shelter for 564 households.

The project built 198 housing units in 23 double storied blocks with kitchen and toilets and major maintenance of 234 houses and kitchens were undertaken. Additionally, Kindergarten, clinic, IGUs, Foot paths and drainage ditches were also part of the project. The private ownership of this houses was arranged to end up in 20 years and women were privileged over men. 55% cost of the construction was covered by the NGO and the rest 45% by the beneficiaries (1Birr/sqm/month for 20 years).

The beneficiaries were expected to arrange themselves with four pre requests identified by the project and these were:

1. Housing beneficiaries were required to be members of SACC (a community Organization for housing) presupposing that SACC was financier of housing.
2. Housing beneficiaries would pay matching fund of value of house supposing that they had borrowed money from the SACC.

3. SACC would be owner of housing until housing beneficiaries settle loans and are given clearance from SACC.

4. After completion of payments, in twenty years, individual members would be given ownership title from concerned government body.

2.17 Housing affordability

2.17.1 How has housing affordability been defined?

The term 'affordability' is widely used in the English language, with general consensus as to its meaning. Indeed, the term 'housing affordability' has come into widespread usage in the last 15 or so years and however, affordability as a concept is hard to define (Mark Robinson, Grant M. Scobie and Brian Hallinan, 2006). 'Afford' is defined as being able to pay without incurring financial difficulties, (Collins English Dictionary). But how does one decide exactly when they are in financial difficulty? Often things are considered unaffordable even when someone's income is clearly greater than the cost of an item.

Stone (1994, p.21) states that affordability is not an inherent characteristic of housing, but rather a relationship between incomes and relative prices. Of course, this argument could easily be extended to any good or service. This is an example of the conceptual problem economists have with housing affordability. Glaser & Gyourko (2003) state that the ability to pay criterion confuses poverty with housing prices, and that income should form no part of affordability considerations. They believe that the physical construction costs of housing are a more sensible benchmark to compare with prices. However, this definition does not reconcile with the above definition of 'afford', which clearly indicates the relevance of income. Thus, the ability to pay is a crucial element of housing affordability.

The idea of affordable housing recognizes the needs of households whose incomes are not sufficient to allow them to access appropriate housing in the market without assistance (Milligan V., Phibbs P, Fagan K. and Gurran N., 2004). Thus, the term 'affordable housing' describes housing that assists lower income households in obtaining and paying for appropriate housing without experiencing undue financial hardship (Milligan et al 2004). When Mark R. et al 2006, refer to the affordability of an item, they usually talking about the amount of financial stress that the purchase would place us under and there are two ways to consider this financial stress. Firstly,

how much of our income is going on this purchase? Secondly, how much income do we have left over for other goods? These measures can be applied to housing just as easily as any other good.

Emma Mulliner and Vida Maliene (2014), argues the above two definitions given by (Milligan V. et al 2004) and (Mark R. et al 2006) by saying that Housing affordability is a multi-dimensional issue, yet it is typically defined and assessed quite narrowly in terms of financial criteria. The housing affordability problem encompasses more than financial costs of housing and extends to larger issues of social wellbeing and sustainability. Accordingly, a broader range of factors ought to be considered when defining and assessing affordability. Mark R. et al 2006, conclude that affordability is difficult to define and that there is no consensus as to the best way to measure it.

In recent years 'housing affordability' has become a common way of summarizing the nature of the housing difficulty in many nations and this is in contrast to the 'slum problem', the 'low-rent housing problem', the 'housing shortage' or the 'housing need' definitions of previous decades. A household is said to have a housing affordability problem, in most formulations of the term, when it pays more than a certain percentage of its income to obtain adequate and appropriate housing. (J. David Hulchanski, 1995).

According to David S. Bieri (1995), Housing affordability broadly refers to the cost of housing services and shelter - both for renters and owner occupiers - relative to a given individual’s or household’s disposable income. Additionally, he states that, affordability can be hard to pin down in practice, especially in terms of defining the appropriate geographic scope for housing markets, suitable definitions of representative reference individuals and households, and their changing circumstances over time. In its most crude form, housing affordability simply refers to the rent-to-income ratio or house-price-to-income ratio; more sophisticated measures of housing affordability consider:

- How much non-housing expenditures are limited by how much is left after paying for housing or
- In addition to 'income affordability,' they distinguish between 'purchase affordability' (the ability to borrow funds to purchase a house), 'repayment affordability' (the ability to afford housing finance re-payments).

Mark R. et al 2006, referring to different sources, they have stated alternative definitions of affordability. These definitions are listed below.

Some definitions used in practice (policy and academic) are set out below. Most of these definitions include components of adequate accommodation and adequate residual income. As DTZ New Zealand (2004, p.19) point out, "these two components can be considered the core of any definition of housing affordability".

"Affordability is concerned with securing some given standard of housing (or different standards) at a price or rent which does not impose, in the eye of some third party (usually government) an unreasonable burden on household incomes." (Maclennan and Williams, 1990, p.9)

"The answer is that any rent will be affordable which leaves the consumer with a socially acceptable standard of both housing and non-housing consumption after rent is paid" (Hancock 1993, p.144).

"A household is said to have a housing affordability problem, in most formulations of the term, when it pays more than a certain percentage of income to obtain adequate and appropriate housing" (Hulchanski 1995, p.471).

"Physically adequate housing that is made available to those who, without some special intervention by government or special arrangement by the providers of housing, could not afford the rent or mortgage payments for such housing." (Field 1997, p.802).

"Definitions of affordability concentrate on the relationship between housing expenditure and household income and define a standard in terms of that income above which housing is regarded as unaffordable." (Freeman, Chaplin and Whitehead 1997).

"The notion of reasonable housing costs in relation to income: that is, housing costs that leave households with sufficient income to meet other basic needs such as food, clothing, transport, medical care and education." (Australia National Housing Strategy 1991).

"Housing affordability' refers to the capacity of households to meet housing costs while maintaining the ability to meet other basic costs of living." (Burke 2004).

"Affordability is not simply a matter of housing costs and income levels; it is about people's ability to obtain housing and to stay in it." (Housing New Zealand Corporation 2005).

There is very little difference between the concepts of affordability as it applies to housing and as it applies to other goods. The obvious variation is that a person might consider a particular house to be quite affordable, while they consider some other good for the same price to be very unaffordable. What makes this possible is that what we really care about is how much money we have left over after a purchase and what we think we might need to spend it on. Since housing accounts for a much greater proportion of a household's monthly expenditure than most other groups, we need less income left over after housing costs than we do after, say, clothing costs. Also, when purchasing a house, the total cost (and benefit) can be spread over several years, more so than most other goods.

2.18 Measuring Housing Affordability

2.18.1 Housing Expenditure-to-income 'Rule of Thumb'

J. David Hulchanski (1995, p.476-477), has made an in-depth analysis on the housing expenditure-to-income ratio and he stated that, it is far too simple to state that the housing expenditure-to-income ratio is either valid or invalid, useful or not useful, or that it is being used appropriately or inappropriately. Instead, we must ask, in what way is it being used? What is it supposed to be measuring? Does it do so in a valid and reliable manner? In the post-war (mainly North American) housing literature it is possible to find the ratio being used in six distinct ways:

- *description* of household expenditures;
- *analysis* of trends and comparison of different household types;
- *administration* of public housing by defining eligibility criteria and subsidy levels in rent geared-to-income housing;
- *definition* of housing need for public policy purposes;
- *prediction* of the ability of a household to pay the rent or mortgage; and
- as part of the *selection* criteria in the decision to rent or provide a mortgage. Much of the contemporary practical or applied use of the housing expenditure o-income ratio in the US and Canada relates to defining the ability to pay for housing.

According to J. David Hulchanski (1995), The above six typology helps in the process of distinguishing between valid and invalid, appropriate and inappropriate uses of housing expenditure-to-income ratios. It can also provide an improved vocabulary for those who use the

term 'housing affordability'. The list can be divided into two categories. The first three uses description, analysis and administration can be considered quite valid and helpful when used properly by housing researchers and administrators. 'Used properly' means that the research methods and the statistical analysis techniques are properly carried out, i.e. no significant methodological errors are made. This leads to valid and reliable descriptive and analytic statements about the housing expenditures of the different types of households being studied. This type of description and analysis of household expenditure patterns can also be helpful in defining administrative rules about eligibility for means-tested housing programs.

The Ethiopian government is committed to expanding access to affordable housing for the poor (UN HABITAT, 2017). Ethiopia's major policy strategy documents provide a conceptual and operational definition of what constitutes housing affordability. Any attempt to measure housing affordability, however, needs to recognize the difficulties that households often face in balancing their housing costs (rent, purchase or mortgage repayments) and non-housing expenditures and this is often constrained by very low earning capacity (Stone, 2006). A review of literature highlights that in many countries a ratio approach is commonly used to calculate housing affordability. According to Gan and Hill (2008), the ratio approach determines the proportion of the income that should go toward housing costs relative to non-housing expenditures (Gan and Hill, 2008). A 30% maximum of household income for housing costs is considered appropriate. In the African context, however, settling on a 30% threshold is often impractical because of the difficulties of obtaining adequate and accurate information on household income. Given the prevalence of low incomes and depressed wages, even spending 30% of income on housing, let alone a higher share, is not sustainable (UN HABITAT, 2017).

According to UN HABITAT, 2017 Report, out of the 992 condominium owners who participated, 48.7% spends less than 25% of their income on housing. On the other hand, 41.3% of the respondents spends more than 30% of their income on mortgage. As a result, the latter are burdened and severely stressed to keep up with their monthly payments. On the same report it says that, it must also be pointed out that, due to low incomes, a large majority of the urban poor can barely afford the minimum down payment of ETB 65,000 for a studio apartment in the highly subsidized condominium scheme. Accordingly, out of 1,184 current condominium unit owners who

participated in the survey, 528 (44%) households are of the opinion that the condominium housing schemes are unaffordable.

Couple of factors are identified by the above report referring to Addis Ababa city's Housing Development and Administration Agency and World Bank (2015) for unaffordability of condominium houses. These are:

- Significant increase in condominium unit prices between the years 2006 and 2013. This partially explains the new unaffordability. For instance, during these years, the monthly mortgage unit price that was set for a studio, one bedroom, two- bedroom, and three-bedroom steadily increased by 183, 274, 260, and 214 percent respectively.
- An additional factor for housing cost escalation is persistent inflation over the past two years. The construction cost for condominium housing in Addis Ababa has more than tripled from ETB 1,000 per square meter in 2005 to over ETB 3,000 in 2014. Increasing construction costs, in turn, translate into higher monthly mortgage payments for condominium owners. Out of 1,181 condominium unit owners, 648 (52%) reported that they had defaulted paying their mortgage. On the other hand, nearly 36% condominium owners reported that they have paid off their condominium mortgage debts way before the scheduled grace period.

2.19 Feasibility Analysis

Graaskamp made a number of noteworthy contributions to feasibility analysis (James R.DeLisle, 2004). Many of these contributions were summarized in 1970 in A Guide to Feasibility Analysis, his seminal piece on feasibility analysis. Although he continually updated his approach to feasibility analysis in practice and in the classroom during the ensuing years, he never got around to updating the actual manual until 1982. Unfortunately, the update was never formally published, although he did spin off a handful of articles, essays, and lectures on feasibility analysis during this time, including "A Rational Approach to Feasibility Analysis" (Graaskamp, 1991) and "Feasibility Analysis: The Father of Appraisal" (Graaskamp, 1991). This latter title was particularly prescient, since many believed that if feasibility analysis was indeed the father of appraisal as he contended, then Graaskamp was the father of the feasibility analysis.

Graaskamp viewed feasibility analysis as the culmination of the overall real estate process, drawing on, and synthesizing the myriad of analytical, behavioral, and quantitative tools to answer a particular question. He explained feasibility analysis by noting (Graaskamp, 1991e, p.80)" A project is feasible when the real estate analyst determines that there is a reasonable likelihood of satisfying explicit objectives when a selected course of action is tested for a fit to a given context of specific constraints and limited resources. He dissected this definition and pointed out some of its critical implications.

First, client objectives are unique and must be extracted by the feasibility analyst in order to correctly define the problem against which the various alternative solutions will be evaluated.

Second, the term *likelihood* explicitly recognizes that forecasting is involved in feasibility analysis and that such forecasts require subjective judgments that have an inherent degree of risk.

Third, the notion of "satisfying" addresses both the tangible dimensions of economic solvency as applied directly to the client, as well as the intangible dimension of the social implications and externalities created by the real estate.

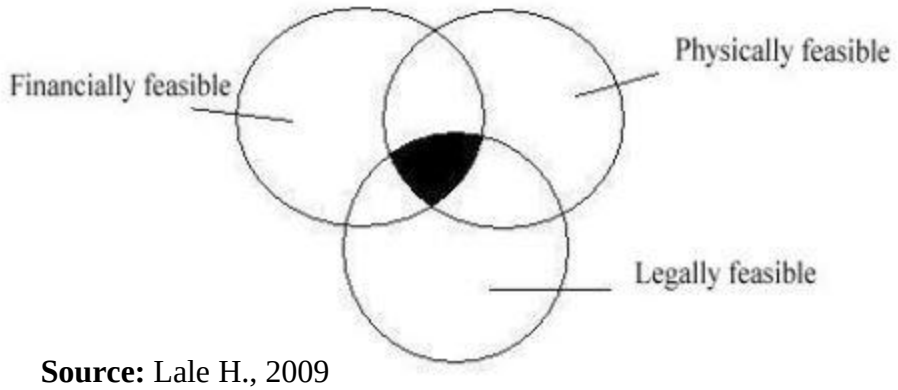
Fourth, constraints on the utilization of property should be recognized, but only after the initial constraints are challenged to determine whether or not they can be modified in a cost-effective, socially acceptable manner.

Fifth, finally limited resources, which include financial requirements, talent, and time, should be factored into the research design. He classified feasibility problems into three basic types of problems: a use or user in search of a site; a site in search of a use or user; and an investor in search of an opportunity.

Yilmaz, D., cited in Lale H., also identified three condition to be considered in order to test project's feasibility. These are:

- Physically feasible;
- Financially feasible; and
- Legally feasible.

Figure 2.3: feasibility of a project



Source: Lale H., 2009

Graaskamp approached feasibility problems by taking the "problem as stated" as a starting point, rather than the ultimate objective of an assignment. He recognized that clients typically could not correctly state specific objectives that they were trying to satisfy, much less lay out a problem in terms of its full dimensionality. Thus, he would listen to the problem as stated and then put clients through a series of questions to help him understand the implicit objectives and constraints the client faced. Under this model, each feasibility assignment began with the client and then turned attention to the underlying real estate question.

In addition to customization dictated by this client-orientation, he noted that a "feasibility study" could not be merely pulled off the shelf and applied to a new case. He recognized that the nature of studies needed by the market was rather broad and made a major contribution to the discipline by helping to organize them into rational clusters (Graaskamp, 1991). These clusters encompassed such diverse projects as:

- strategy studies;
- market analyses;
- merchandising studies;
- legal studies;
- compatibility studies;
- engineering studies;
- planning studies and
- Financial studies.

Consistent with his characterization of the real estate process as inherently multidisciplinary, Graaskamp pointed out the fact that collaboration among professionals was a necessary condition to valid feasibility analysis (Graaskamp, 1991). This linkage was important for several reasons.

First, it provided access to cutting edge skills the specialized areas needed to satisfy professional standards at any point in time.

Second, it helped ensure that changing professional standards or the emergence of new "best practices" could be brought to bear on individual decisions. This was especially important in light of changing market conditions, institutional forces, and capital markets. In this dynamic environment surrounding real estate decisions, he concluded that feasibility studies should be grounded on systematic decision-making processes that could be adjusted to new situations or concerns, rather than frozen by rigid heuristics.

Unlike many who lamented the dearth of data in real estate, Graaskamp argued that one of the challenges the analyst faced was the development of a research design that would allow him to effectively sift and winnow the data to pick only the relevant information necessary to the decision at hand. He also noted that real estate decision-making was targeted at reducing risk and uncertainty rather than seeking a definitive conclusion that was inherently elusive in the inefficient real estate market. As such, he contended that researchers should approach projects in light of time and budget constraints. At the same time, however, he pointed out that analysts would have to understand the risks of the underlying decision to avoid compromising the objectivity and validity of the results due to excess resource constraints.

Graaskamp argued that systematic problem simplification could not be at the expense of valid forecasting upon which the success or failure of the decision depended. In 1982, he stepped back and looked at the contributions that he had made in his initial effort over the prior decade (Graaskamp, 1991). He took great pride in the fact that the American Institute of Real Estate Appraisers had embraced his definition of feasibility in the appraisal terminology textbook (Boyce, 1975).

However, Graaskamp was troubled by the fact that the authors had added the condition that "feasibility" is normally related to the economic potential of a project. He lamented that this change in emphasis confused the issue of feasibility and financial viability and softened the emphasis he

placed on the social obligations of real estate decision-makers. However, he was encouraged by the fact that real estate had ultimately become recognized as an applied social science, which combines applied social science or the dynamics of behavioral systems with the physical systems of nature and manufactured artifacts. He felt a sense of accomplishment in the fact that there had been a gradual acceptance of his categorization of real estate problems that he had identified as elements of feasibility analysis. Finally, he appreciated the fact that reviewers recognized the importance of the holistic approach that he espoused in his original manuscript.

2.20 Lessons Learned

For whom are we building?

The review of relevant documents and studies shows that, though the government of Ethiopia is engaged in massive housing provision projects, still there is high gap between demand and supply. Surprisingly, even the housing beneficiaries of this massive development are suffering a lot of problems. The current housing development strategy of Addis Ababa city targeted the low and middle income group of the people specially located in the inner part of the city and few years back this strategy is applied by demolishing the dilapidated inner city parts and replacing them with new condominium housing typologies. This is done by relocating the inner city slum settlers to fringe area of the city, an average of 15 kilometers away from the center. According to many studies, this relocation has come with different socioeconomic problems. Such as:

- **Affordability**: - despite the fact that, the main objective of this housing development is to address the low and mid income group, and government made different incentives up to lowering the housing price below its construction cost, the down-payment and monthly installments are beyond the financial capacity of these groups. Hence, it is unaffordable to most residents.
- **Infrastructure**: - the problem of basic infrastructure faced by poor households in relocation areas are not fully addressed in the new urban development policy of Addis Ababa and it is compromising their socio-economic well-being.
- **Economy**: - the informal economy, which is the dominant income earning sector for the poor, is principally situated in the city center. This sector is characterized in Addis Ababa by irregularity, low wages, unreliability and seasonality. Due to the distance between new place of residence and earlier work place, most of the residents especially women are

forced to discontinue their work. Additional factor for this is, the new neighborhood could not accommodate their former work.

- **Social capital**: - inner city residents had built up a strong social support system to maintain their livelihood. But resettlement disrupted the neighborhood-based social networks and such system have no place in the new neighborhood.

The one and only thing the urban redevelopment appreciated is, it provides better quality housing and creates good physical environmental. Generally speaking Relocation is experienced as a challenge particularly for those residents who lived in the city center.

2.21 Theoretical framework

The study is carried out on the basis of Ministry of Works and Urban Development 2009 policy which recommends onsite resettlement of residents of the redevelopment either on the low cost house built by the government or by organizing them into housing cooperative. This involves Integration and coordination of efforts to enable access to housing by the poor and middle income level households without relocating or displacing the existing households. For this study, affordable housing schemes identified by Ministry of Urban Development and construction is going to be used as a proto type. The municipality could consider the requirements for on-site provision of affordable housing.

Though most of the socioeconomic problems occurred due to inner city redevelopment program are related with relocation and pre supposing that on-site resettlement housing could be a solution, the affordability issue is still questionable. According to UN HABITAT (2017) Report, among current condominium owners who participated in the survey, 44% households are of the opinion that the condominium housing schemes are unaffordable. Likewise, World Bank and Cities Alliance (2015) report concluded that current condominium housing scheme are unaffordable. This shows that, whether we relocate the resident to new neighborhood or resettled them on their existing neighborhood, the ability to pay for new housing is the same unless the housing price is compromised with community's ability to pay. So, this study tested the feasibility of on-site resettlement housing project by taking affordability as a benchmark.

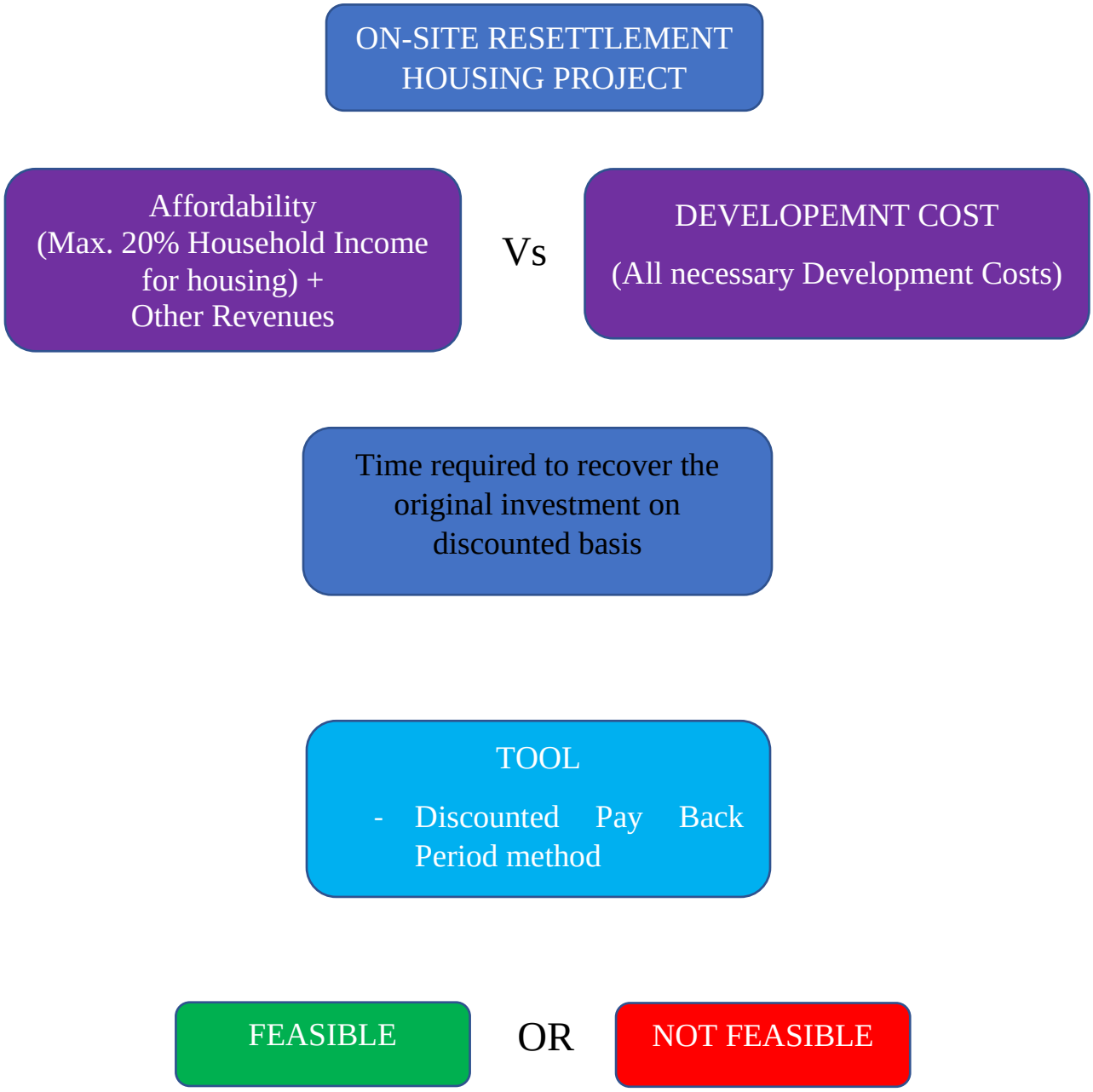
The ratio approach determines the proportion of the income that should go toward housing costs relative to non-housing expenditures (Gan and Hill, 2008). Accordingly, UN HABITAT (2017),

reported that out of the 992 condominium owners who participated, 48.7% spends less than 25% of their income on housing. So, this study will consider a maximum of 20% household income for mortgage payment as appropriate share. Thus, based on the economic data gathered from the action area, the monthly mortgage payment is determined.

Regarding the financial feasibility of the project, time value of money is considered as a corner stone in this feasibility study. Hence, Discounted Pay Back Period Method is employed as a financial tool. Discounted Pay-Back Period is the length of time required to recover the initial outlay on the project or it is the time required to recover the original investment through income generated from the project on discounted basis.

2.22 Conceptual Framework

Figure 2.4: Conceptual framework for financial feasibility.



Sources: Developed by Author

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter briefly describes the methodology employed in this study. The chapter has nine sections. The section that comes immediately after this introductory section presents the strategy of the study, followed by the site selection criteria. The operationalization of the study, data sources, methods of data collection, sample technique, the models and ethical considerations are discussed in fourth, fifth, sixth, seventh, eighth and ninth sections respectively.

3.2 Strategy of the study

This study evaluated the financial feasibility of on-site resettlement housing project which is recommended as policy option by the Ministry of Works and Urban Development (2009), to redevelop inner city slum areas. In order to test the feasibility of the project, the study used affordability as a benchmark and "Abinet" as a notional site for the case study.

3.3 Site selection criteria

This study investigated development scenarios on selected site "Abinet" area. The study area is selected mainly based on the following key parameters.

- **Core area:** Addis Ababa City Structural Plan Norms and Standards identifies Areas within 5 km radius of Merkato, Teklehaimanot, Piazza, Lagar, Mexico, Kazanchi, etc as core area and the selected site for this study is found within the specified range to Merkato.
- **High Density:** according to the data from Addis Ababa Integrated Land Information Center, 2013, the average population per hectare in the study area is 432.9.
- **Potential redevelopment area:** Based on its vision the Five-Year Strategic Plan of 2008/09-2012/13 gave a direction for the immediate implementation of Local Development Plans (LDPs) prepared by the previous City Administrations for few strategic locations of the inner-city, according to the Structure Plan of Addis Ababa. It gave a priority for the reconstruction of the old and congested inner-city neighborhoods (Addis Ababa City Administration 2008). The old dilapidated sub cities and located in the inner part of the city (Addis ketema, Arada, Lideta, and Kirkos) are smaller in size and relatively high populated sub cities (Mulu W. 2016). According to head of Land and Urban Renewal

Projects Studies, Design, and Implementation Follow-up Sub-Process cited on (Ezana W. 2011), 14,000 ha of the inner-city is dedicated for slum upgrading and 2,000 ha is planned to be demolished and redeveloped from scratch.

- **Area where there is high housing challenge:** The majority of the houses are mud houses, old and dilapidated due to various reasons. Initially, there is a law that prohibit major maintenance of kebele house by the residents, and the government also stopped an investment on those houses. In addition to this, the residents are also not willing to maintain the houses, because the cost of the houses will increase in case of buying the houses from the government. As a result, they are usually precarious, cramped and overcrowded being inaccessible like in case of fire emergency, mostly built wall to wall with little or no ventilation access. Considering their visual aspect most houses from outside convey an impression of aging and decay (Mulu W., 2016).
- **High land value:** The study area is located close to Merkato, where 225,550 Birr is offered for a meter square of land recently.

3.4 Operationalization of Variables

The research questions are operationalized into measurable variables in order to answer the research questions. Information related to the variables are collected using specified indicators from the different sources of information using different methods of data collection. The operationalization framework of the study is briefly displayed in the following table.

Table 3.1: Summarized operationalization framework.

Study questions	Variables
How much is the residents' ability to pay for new housing?	Housing expenditure-to-income ratio (rule of thumb) • Economic activity • average monthly income
How Is the project viability regarding provision of affordable housing?	Housing type Mortgage payment Socioeconomic wellbeing Discounted pay-back period

What are the values created in relation to the development costs?	Socioeconomic condition Housing improvement Infrastructure improvement Environment quality Development cost
What are the potential development opportunities created?	Potentials for future development

Source: Developed by the Author

3.5 Data Sources

The study employed both primary and secondary data sources. Primary data are collected mainly from various community members (elders, youths and women), government offices (Woreda and sub city planning offices, Addis Ababa Housing Development Agency) and design and consulting offices who are engaged in condominium housing projects. The secondary data are collected from the various policy documents, legislations, proclamations, urban development plans, strategy documents, official documents, project documents (especially redevelopment project documents), statistical reports, progress reports and other relevant published and unpublished documents relevant for the issue under study. Generally, there were three main sources of data during the data gathering period. These are, the residents, government offices and the study area or the physical environment.

3.5.1 The Residents

The residents in the study area were the major source of primary data for the study. The dwellers participated in survey questionnaire and detailed interviews conducted. The key informants identified from the community were elders, people with disabilities and women. This community members were selected as key informants because the researcher believes that they have strong attachment with their neighborhood and they are potential affected group of redevelopment activity. Likewise, the interviews made with the key informants and with the selected dwellers was more valuable and provides numerous ideas about the upgrading project at general level, and specifically about on-site resettlement.

3.5.2 Government offices

- **At city level:** Addis Ababa Housing Development Bureau were a key provider of information related to contract agreement of housing projects, affordable housing schemes and payment modalities though the data are not well organized and clear. Data related to upgrading projects was also collected from the urban planning institute which has the highest power to coordinate the urban planning office at the sub city level, and to organize the upgrading projects at city level. Additionally, the federal government and city level proclamations and regulations related with land administration and city planning issues, term of reference for the upgrading projects, and operational manuals were collected from urban planning institute at city level and data related to population number and area coverage were collected from Addis Ababa integrated land information center.
    - **At sub city level: -** from Lideta sub city, experiences and regulations related to compensation payment during redevelopment activity were gathered and Detailed interviews were also conducted with the head of Lideta sub city Land Management office and with the urban planning professionals working in the office.

3.5.3 Private Design and Consulting Offices

Private design and consulting offices who are currently engaged or formerly participated in condominium housing were used as source of data. Data gathered though interview and documents from these offices were contract agreement and bill of quantities. This data was used for two purposes. First, to estimate total development cost of condominium projects and second, to compare the development cost to home price.

3.5.4 The Study Area

The physical environment or the study area itself was also another sources of data for the study. The housing conditions, the morphology of the area, the condition and type of infrastructures, service facilities and sanitation situation of the area were collected from the physical environment by undertaking direct visit.

3.6 Method of data collection

In order to collect relevant information and data, three different data collection techniques were applied in this study. These are:

- **Questionnaires:** To gather data related to socioeconomic condition, questionnaires are used and it is comprised of different questions designed to explore the respondents' sources of income, monthly income, household size, job status, current job location, home ownership and etc. The questions are consisting of multiple choice and rating questions that obtain facts and inquire personal opinions as a subject matter person.
- **Interview:** Interviews allow informants the freedom to express their views in their own terms and are useful to collect qualitative descriptions of the subject under study with respect to interpretations of its meaning or explanation (Kvale, 1996).Through interview the researcher can generate a lot of information very quickly and enable to cover a wide variety of topics (Limb & Dwyer, 2001). Accordingly, in order to collect various viewpoints of the local community towards redevelopment, housing problem and demand, perception towards on-site resettlement housing project and preference and ability to pay for new housing, semi structured interviews were undertaken with the key informants and selected dwellers in the study area.
- **Site visit:** Direct observation of a study area by a researcher is a frequently used data collection technique. Direct observation comprises intensive and systematic observation of a situation. It helps the researcher to grasp a richer understanding of the situation, and to understand the problem encounters, in its natural setting (Limb & Dwyer, 2001). The site observation was conducted mainly to characterize and understand the physical or spatial condition of the study area, to understand the social interaction of the residents and to assess economic activities taking place in the study area. Accordingly, site visit was undertaken parallel to data collection through questionnaire and interview. The activities, events, physical condition, and socioeconomic characteristics of the study area were observed as first-hand data on site and the data were recorded using photograph.

- The qualitative research approach is adopted for the study has been described as involving an inquiry process for understanding a social or human problem, based on building a complex, holistic picture, through the formation of words and reporting of detailed views of informants, conducted in a natural setting. The methodology has the ability to look at change processes over time, to understand people's meanings, to adjust new issues and ideas as they emerge and to contribute to the evolution of new theories. Though this approach is sometimes faulted for the potential subjective nature of the results it gives, the use of empirical data (survey of

respondents and secondary survey data) to support analyzed data from literature helps ground the results of such study. As discussed in other sections, this study starts with a detailed review of literature on subject area to establish the eminence of the central problem and to identify the theoretical framework relevant to the research objectives to help focus the research plan and hypothesis. Literature reviewed is analyzed alongside empirical evidence in the Addis Ababa context to establish the applicability of the theory and scenario it posits.

3.7 Sampling Technique

As the study is made in small area which has homogeneous characteristics throughout, to generate in-depth information of current situations and future opportunities on the basis of the ideas, perceptions and preference, it relied on random sampling of informants and resource persons. The data intended to be collected using the simple random sampling were more of socioeconomic data at household level. The total households in the selected study area were 359. Thus, with 80% confidence level, the sample size was found to be 113 and data were collected from all 113 samples. On the other hand, the study relied on snow ball sampling techniques to identify key informants for in-depth interview particularly from the target community and other people vulnerable to the potential impact of the project.

3.8 Data Analysis

In this study, data analysis is made so as to put together and fit the data collected from different sources, using various data collection techniques, to the need of the study objectives. This process contains the transcription of interviews, categorization, clustering and triangulation of the evidences. In addition to the analysis of the interviews using ethnography and narrative approaches, the relevant secondary documents, photographs collected during the field work and maps generated were interpreted with respect to the main issues of the study question and objectives. The triangulation of the data would add to the study's credibility and trustworthiness.

3.9 The models

In this study two types models are applied. The first one is housing expenditure-to-income ratio. This is used to estimate the residents' ability to pay for new housing. This is applied on the basis of economic data gathered from the residents of the study area. The second model is the Discounted Pay-Back Period Method. The Discounted Pay-Back Period is defined as the length of time

required to recover the initial outlay on the project or the time required to recover the original investment through income generated from the project considering time value of money (Brigham & Ehrhardt, 2005). The Discounted pay-back period is used as a financial tool to perform the financial feasibility of the project in this study. This method is selected on the basis of that:

- Usually, housing projects undertaken by government are not profit oriented, rather they are believed to be intended to provide affordable housing for low and middle income people. So, beside improving slum settlement and providing decent housing at affordable price, recovering the development cost on the basis of discount is assumed to be enough;
- It is easy to calculate and understand; and
- Biased toward liquidity.

3.10 Ethical Consideration

Ethics in a study process is refers to the responsibilities and the conduct of a researcher to protect the target groups who are involved in the study process and in the study area (Dowling, 2010). As a requirement, the ethical issues that may arise during the study such as privacy, confidentiality, and anonymity should be anticipated. Therefore, the researcher received a letter of cooperation from Ethiopian Institute Architecture, Building Construction and City Development (EiABC) Graduate office. Participants of the study were informed about the objectives of the study emphasizing that the data will be used only for the intended academic purpose. The data were collected by employing various techniques with the consent of the participants of the study. Careful attention has been given regarding respecting the rights, needs, and values of the study subjects, and maintaining confidentiality of the data and acknowledging sources of information.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the findings of the study. The chapter is divided in to two major parts. Initiative and in that the strategy the government adopted to promote, plan and execute housing redevelopment projects is discussed first. In this section, emphasis is given to on-site redevelopment, people's perception and preferences with regard to housing development, legal frameworks and planning guidelines regarding redevelopments are thoroughly discussed. Where the first section frames the intended analysis, the subsequent section presents and analyzes results of the study on existing site analysis. This part is further divided into sub sections. The first sub section discusses existing physical condition of the study area including: location of the selected site, physical characteristics, land use, housing condition, tenure/home ownership and infrastructure condition. The second sub section discusses issues regarding socio-economic analysis including level of education, social interaction, household size, employment status, income status and economic activities of the residents in the study area.

4.2 Housing Development Strategy

The City Administration prepared a five year strategic plan for the year 2008/09 to 2012/13. The strategic planning document set out its vision as follows: To make Addis Ababa a city where there is social justice; a livable city; a model for good governance, development and democratic system building; strong African diplomatic center; worldwide competitive city and a middle-income city by 2020.

Similarly, the parts of the vision of the City Development Plan of 2001 to 2010 that guides the five-year strategic plan is also to make the city, … Africa's diplomatic capital by 2010. The city will ensure a safe and clean environment for a healthy and productive society with improved access to social services and physical infrastructure … As a diplomatic capital of Africa, the city will provide quality services of international standard.

Nonetheless, the existing slums in the inner-city, which are results of haphazard development regardless of the city's Master plan, were identified as a setback to achieve the vision set out by the city. According to the Head of Land and Urban Renewal Projects Studies, Design, and

Implementation, the City Development Plan has identified that 16,000 ha of the inner-city area as made up of slums. The City Development Plan and the previous city governments also considered the precarious living conditions of the inner-city slums and its effect in painting the city a bad image (Ezana W., 2011).

However, land development in the outskirts of the city is costly and also the expansion areas start diminishing considering constant land area of the city (Bizuneh, 2010). These, together with poor housing and living condition, and the bad image the city made the current city government to prioritize urban reconstruction, according to the government official key informants of the study (Bizuneh 2010).

Commensurate with the above stipulated vision, the City Administration outlined and mapped out directions to guide swift and revamped implementation of Local Development Plans (LDPs) that were prepared by the previous City Administrations for the selected few strategic locations of the inner-city within the set out Structure Plan of Addis Ababa. It gave priority for the reconstruction of the decayed and congested inner-city neighborhoods (Addis Ababa City Administration, 2008). To operationalize the inner-city reconstruction of the city, the Administration mainly relied on two strategies developed by the ten years City Development Plan of 2001-2010 including urban redevelopment and slum upgrading (ORAAMP, 2002). As indicated by the above cited work of Ezana W. (2011), 14,000 ha of the inner-city is dedicated for slum upgrading and 2,000 ha is planned to be demolished and redeveloped afresh.

The Federal Urban Housing Development Policy emphasizes the demolishing and redevelopment based on new plan of the inner-city dilapidated slum areas giving particular emphasis to low-cost housing. Furthermore, the policy recommends on-site resettlement of residents of the redevelopment either on the low cost house built by the government or by organizing them into housing cooperatives (Ministry of Works and Urban Development, 2009).

4.3 Opinions, reactions and measures of residents regarding the renewal program/approach

It was the primary concern of the study to investigate opinions and measures or reactions of slum communities on the government's renewal approach especially towards on-site resettlement housing project.

Immediately after the establishment of the Land Development, Banking and Urban Renewal here in after LDBUR project office in October 2008, it received applications of redevelopment from slum residents in different districts of the city. Most inner-city district administrations, which have high proportion of slum dwellers, were facilitating signing of a petition that demands on-site redevelopment of the area (Ezana W. 2011). The core message of the petition that is written in Amharic is translated as follows: "We, slum residents, seek support of the government to resettle us on the existing site we occupy by developing condominium housings. We are in agreement with the demands of the government to resettle in a temporary shelter for the duration of the construction and in this we are willing to extend our support in any way our capacity allows us." Petitions with such orientation and commitment were deployed to the government entities in many inner-cities such as Arada Sub City, Lideta Sub City and Kirkos Sub-city (Ezana W., 2011).

As a core concern of this study, surveyed residents and key informants were solicited to provide their fresh opinions on the matter in a manner that enlightens and illustrates the motivation and justification or the reason slum communities decided to pursue this course of action at this point in time in addition to investigating slum residents understanding of the highly espoused and recommended on-site resettlement based housing projects. It is obvious that championing the resettlement project cannot succeed without the direct and active involvement of slum communities themselves. It was also the intention of the study to seek opinions on strategies, modes, levels and extent of collaboration that needs to be sought from residents in addition to investigating their understanding of on-resettlement and/or other alternative redevelopments all of which are the concern of the feasibility study.

Opinion from a one key informant (who resides in a decayed slum house with his family including small children who should be out of it immediately) summarizes the acknowledgement of slum communities to change by painting a picture of their inhuman living condition they have chosen to abandon:

"Look at this," he said pointing to a small deteriorated and decayed house they called home for too long now where they shouldn't have at all costs, *"...this is what i call my home, a shelter that doesn't qualify to be called a house, on which my wife and two children resided. It is like a cage with only one unhealthy and unhygienic room/environment. It serves as our bedroom, kitchen and everything we do on a daily basis. We share a substandard toilet with other neighbors in a similar*

situation. No human being should be allowed to live in such a state let alone reproduce and bring up children in it. We should not be allowed in such a condition, even if we chose to. Yet, it is a place we call home where communities shared rich values. That is why, we still refuse to be relocated elsewhere and lose these values we treasure deeply which are much more valuable to us than to start a new life afresh even if the housing conditions are better. This is in addition to the fact I cannot ignore if I have to continue taking care of my family: that the only gainful employment or work i know is available only in this neighborhood. Even if I decide to be relocated to another new area, I have to come here every day for my work which would be difficult if not impossible for me as well as my wife. We are therefore very happy with the new idea of resettling here. We will do everything in our power to help the government accomplish this on our behalf."

Another key informant the researcher interviewed said that:

"*Personally, I will be happy if the area is redeveloped. We have been hearing rumors that the government has a plan to demolish the area and replace it with new housing. We know the situations will not continue like we are living now, because, we have seen different areas in our city with the same condition demolished with and without the consent of the residents. We heard that residents relocated from their preferred areas of dwelling even if they are slums no human should live in, suffered a lot. Therefore, personally, I don't want that to happen to me. So, I think it will be better if the area is redeveloped without displacing the existing residents."*

This is no different than the opinion of the above cited key informant, where it is the finding of the study that almost all key informants share the above illustrated opinion.

The key informant below reinforced (though have a somehow different angle re preference that may not continue to be a luxury) the above two reactions which signify commonly held opinions, positions or decisions and commitments:

"*Relocation is not new for me. I used to live around the current bus station and I am the one among relocated people due the construction of the current bus station in 1978. Even if these two areas have similar characteristics, I have also lost many things due to the relocation. But on the other hand, I prefer to have better house and I will be glad if our neighborhood is redeveloped and become attractive. As to me, it would be more successful if redevelopment activity accommodates the existing people."*

According to a triangulated synthesis of qualitative data, including findings from the literature, that is solicited via in-depth interview of carefully selected key informants and surveyed representative members of the community, majority of the residents are clearly posited in favor of redevelopment even though they remain cautious in trusting the government to resettle them, that they are afraid of ending up being evicted or displaced into another location they prefer not to. Different and deeply complex issues (that hindered efforts of the government to date in light of citizens preferences or wishes) of concern beginning the right of citizens come into this scenario which the study attempted to investigate and see through as depicted within the different sections of this report, having in context the limited remit or scope of the study. This is a critical concern of governments at all levels (who at the end of the day are accountable to the people that elected them) where its decisions and the implications of them need to be treated in consideration of precedent and capacity, among others, which may argue against standalone or compromising measures. Yet, solicited data strongly signifies agreement for resettlement but it must be complemented by a scheme to ensure residents that the government will stick to its promise, which among others could be a means to demonstrate the government's decision to acknowledge and address residents' preferences and wishes at any cost.

The following detailed findings are presented systematically to demonstrate the state of affair with regards to redevelopment and/or resettlement. The tables presenting and accompanying processed responses (quantitative) of respondents for data solicitation questions are statistical outputs of the SPSS software. As displayed on the statistical tables, only valid responses are calculated as a quality assurance measure even if effort was mounted by applying scientific measures of doing so to obtain responses for all questions from all relevant respondents. These figures/results, are also presented graphically to promote motivation and easy understanding on the part of people this study/report intends to address/benefit especially decision makers who may not have adequate time to spend on technical details of the report.

Table 4.1: Opinion/Perception of respondents towards on-site Resettlement

Perception towards on-site resettlement housing project					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	102	90.3	90.3	90.3
	no	11	9.7	9.7	100.0
	Total	113	100.0	100.0	

Source: Own Survey

Figure 4.1: Graphic presentation, Opinion of respondents towards on-site resettlement

4.4 Legal Framework

As expected, this section of the report on the findings of the study, concerns itself with data, literature and analysis of these as much as synthesis, to establish understanding on issues of legal nature with regard to resettlement and other alternatives in addition to the implication of these issues that needs to be applied in framing and focusing the investigation. It thus deals on the ground

active legal frameworks (that setout issues including potential constraints) in relation to development initiatives and projects of government and individuals separately or collectively and in collaboration with governments at different levels and private developers. Always, such an investigation begins with ownership of land. As known to all citizens, different governments to date have promoted and decreed proclamations with regard to land holdings assuming these governments are voices of the majority of citizens. Accordingly, the country is guided by a constitution that states *the government has the duty to hold the land on behalf of the people*. The same constitution assures citizens right *to be noticed with respect to policies and projects affecting their community* (Constitution of FDRE, 1994). Controversies or differing opinions and arguments thereof on the phrase or its interpretations abound and these affect measures or actions of the government using the constitution as something that is endorsed by the citizens assuming that the EPRDF led government that came into power by toppling its predecessor, is endorsed by the majority of the country's citizens and/or democratically elected (where many continue to argue otherwise). Whether the government likes it or not, people's opinion of resettlement and redevelopment is strongly influenced by the opinion they hold with the legality of the government in the first place whether the latter argues that it is elected by a majority vote of citizens and is thus legally entitled to evict residents from the land they occupy where that is deemed necessary in favour of the majority. This is not to mention the fact that many citizens still deploy complaints on the undemocratic or illegal decision and action of the communist regime that confiscated their land. In relation to this, proclamation number 455/2005 of FDRE which is cited as 'Expropriation of landholdings for public purpose and payment of compensation' is enacted on the basis that *the government can use land for development work it intends to carry out for the good of the public. This is stipulated as follows: Urban centers of the country have from time to time been growing and the number of urban dwellers has been increasing and thereby land redevelopment for the construction of dwelling houses, infrastructure, investment and other services has become necessary in accordance with their respective plans as well as preparation and provision of land for development works in rural areas has become necessary."*

Save the legal argument of the government to enforce eviction, it has adopted certain international human right conventions which may paint a somehow self-defeating orientation on this legal argument of the government. It is known that, the country has ratified and adopted Universal Declaration of Human Rights (UDHR) and International Covenant for Economic, Social and

Cultural Rights (ICESCR) that prescribe to the avoidance of forced eviction on the part of governments and rather ensure proper participation of the affected group in planning and implementation of development induced resettlement. Additionally, the constitution's article 44 sub- article 2 stipulates the following against the above backdrop of who owns land: "*All persons who have been displaced or whose livelihoods have been adversely affected as a result of State programmes have the right to commensurate monetary or alternative means of compensation, including relocation with adequate State assistance."* Where many citizens who were displaced and evicted remain unhappy on the compensations for relocation and where many who could be potentially displaced do not agree with the compensations, the issue of redevelopment and resettlement (where residents lose their previous status in terms of the land they held) remains controversial at best. It appears that the government doesn't still have the willingness and/or the capacity to ensure compensation that is acceptable by the citizens it may decide to displace. Pursuing such a course of action is thus dangerous for the government where the complaint may stretch to a condition of civil unrest compromising democratic governance which among others would mean impeding disturbance of peace and security and in effect sustainable social and economic growth.

In accordance with the above premise, Article 3 sub-article 1 of the Expropriation proclamation states that: "*A Woreda or an urban administration, shall, upon payment in advance of compensation in accordance with this Proclamation, have the power to expropriate rural or urban landholdings for public purpose where it believes that it should be used for a better development project to be carried out by public entities, private investors, cooperative societies or other organs, or where such expropriation has been decided by the appropriate higher regional or federal government organ for the same purpose."*

Regarding the implementation process of the expropriation and compensation payment, the expropriation proclamation Article 4 sub-article 1 states that: "*Where a Woreda or an urban administration decides to expropriate a landholding in accordance with Article 3 of this Proclamation, it shall notify the landholder in writing, indicating the time when the land has to be vacated and the amount of compensation to be paid."*

In addition to this, the expropriation proclamation also discusses about the responsibility of both landholder and implementing body. Accordingly, Article 4 sub-article 3 states that: "*Any*

landholder who has been served with an expropriation order in accordance with Sub-Article (1) of this Article, shall hand over the land to the Woreda or urban administration within 90 days from the date of payment of compensation."

Likewise, according to Article 5 sub-article 1 and 2 of the expropriation proclamation, the implementing agency shall have the responsibility to: "*Prepare detail data pertaining to the land needed for its works and send same, at least one year before the commencement of the works, to the organs empowered to expropriate land in accordance with this Proclamation and obtain permission from them; and pay compensation in accordance with this Proclamation to landholders whose holding: have been expropriated."*

4.5 Planning Guidelines and Regulations

The Standards and norms are one of the major components of the Addis Ababa Structure Plan, which is a framework for guiding future development activities in the city. Within this framework, and the assumption of planning as a continuous process, the Norms and Standards are developed to be used as basic planning elements in the preparation of Local Development Plans, other detail plans, including those to be prepared for improvements and also spot interventions. They are basically developed to give responsive implementation tools that are used as instrument for phased, flexible, targeted, and scaled development and improvement. They also provide flexible implementation tools that give opportunity for timely evaluation, monitoring and correction at appropriate steps (Norms and Standards of the Addis Ababa Structure plan components, 2002).

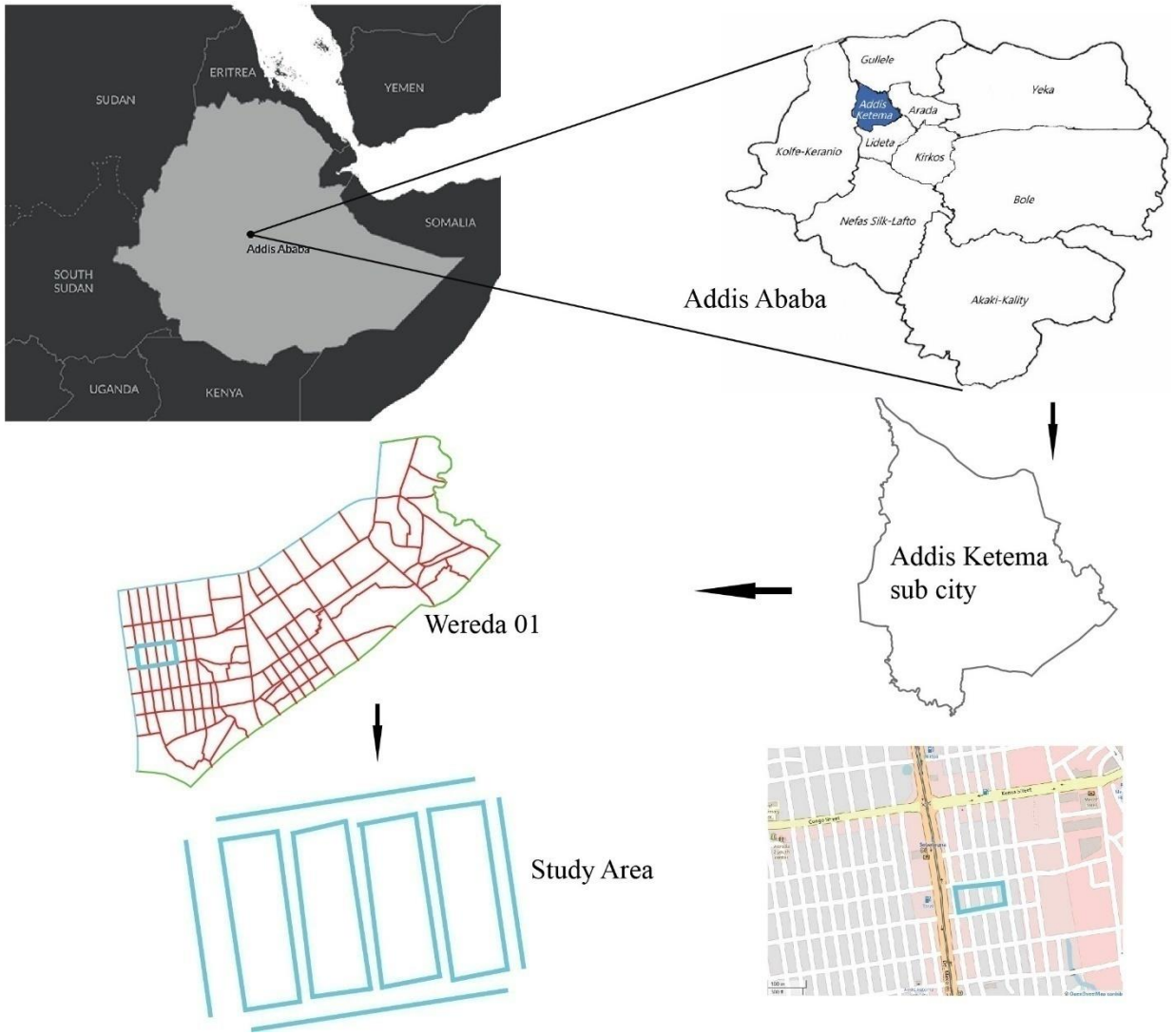
The norms and standards of the Addis Ababa Structural plan identifies core area as, areas within five kilometers radius: Merkato, Teklehaimanot, Piazza, Lagar, Mexico, Kazanchis, etc. Regarding population density in core areas, the norms and standards proposed intervention mechanism which maintain the density by encouraging the change of housing typology from single to multi story walkup buildings (through condominium and other systems) and introduce required services within the space to be obtained. Since most of the housing in this area are owned by the Kebele/Woreda, an appropriate privatization mechanism needs to be opted in accordance to the City's redevelopment plan. Additionally, regarding the housing typologies in the core areas, the Addis Ababa's structural plan norms and standards suggests $G^{+}0$-$G^{+}5$, row houses, duplex, cluster, flats in rental and condominium walk-up apartments in addition to integrating low-income households into high density residential developments of core areas through renewal projects.

4.6 The selected site

4.6.1 Location

This study is conducted in Addis Ketema sub city. Addis Ketema is one of the 10 sub cities in Addis Ababa city administration. It is situated in the center of Addis Ababa, bounded by Lideta Sub city from Southeast, by Kolfe Keranyo sub city from West and by Arada and Gulele sub cites from North East (see Fig. 4.2). According to the current administrative classification, the Addis Ketema Subcity is divided in to 10 weredas, 28 Sub Woredas, 84 *Sefers'* (neighborhoods), and 302 blocks. It is the smallest and the most densely populated Sub city in Addis Ababa (Addis Ababa Integrated Land Information Center, 2013).

Figure 4.2: Location of the study area.



Source: Author

The specific site selected for this study is located in Addis Ketema Sub city Woreda 01 popularly known as 'Abinet' area. The total area of Woreda 01 is 76.7 hectare. It has a total population of 32,205 (ie less than 1% of the City's population) with a very high unhealthy population density of 432.9 people per hectare (Addis Ababa Integrated Land Information Center, 2013). The selected site for this study, Abinet area, is found adjacent to Merkato, the largest open market in the City as well as the country. The site covers 0.8 hectare or 8000m^2 and it is a home for 359 households.

Figure 4.3 Aerial photo of the study area (indicated by red boundary).

Source: Google Earth

4.6.2 Morphology

The morphology of the study area is characterized by regular geometry of blocks and plots though the width and length of the blocks are not proportional and dominated by plots with very small size. From the total area of the site, the largest part is built up and the rest is road. There is almost no open space.

Figure 4.4 Built up Vs Unbuilt up Spaces of the study area

Source: Developed by Author

4.6.3 Physical characteristics

Site visit/observation was one technique the study deployed. Accordingly, the researchers physical investigation of the site revealed that, the Study area, Abinet locality, is almost entirely made up of decayed squatters/slum posing in-human living conditions/environment for more than 32 thousand residents or citizens including small children, pregnant women and the elderly. it is inappropriate to refer these shelters as housings. Where they are to be defined as such, most if not all are in extremely poor condition structurally, due to a combination of factors including long age, inadequate maintenance and the undue pressures of overuse. The walls and floors of almost all the housing units are made of mud and straw (traditionally known as "chika") on a timber framework and corrugated iron roofing. No such thing as foundations and flooring in their construction. This is a common scenario across the country both in urban and rural settings. Additionally, though the roads are paved with cobblestone, since recently, peddling and like activities along the roads combined with lack of proper sewerage system and solid waste disposal contributes to unhealthy

and unpleasant living condition. Site images taken by researcher below highlight the hideous state of these squatters.

Figure 4.5: physical characteristics of the study area.


Source: Author

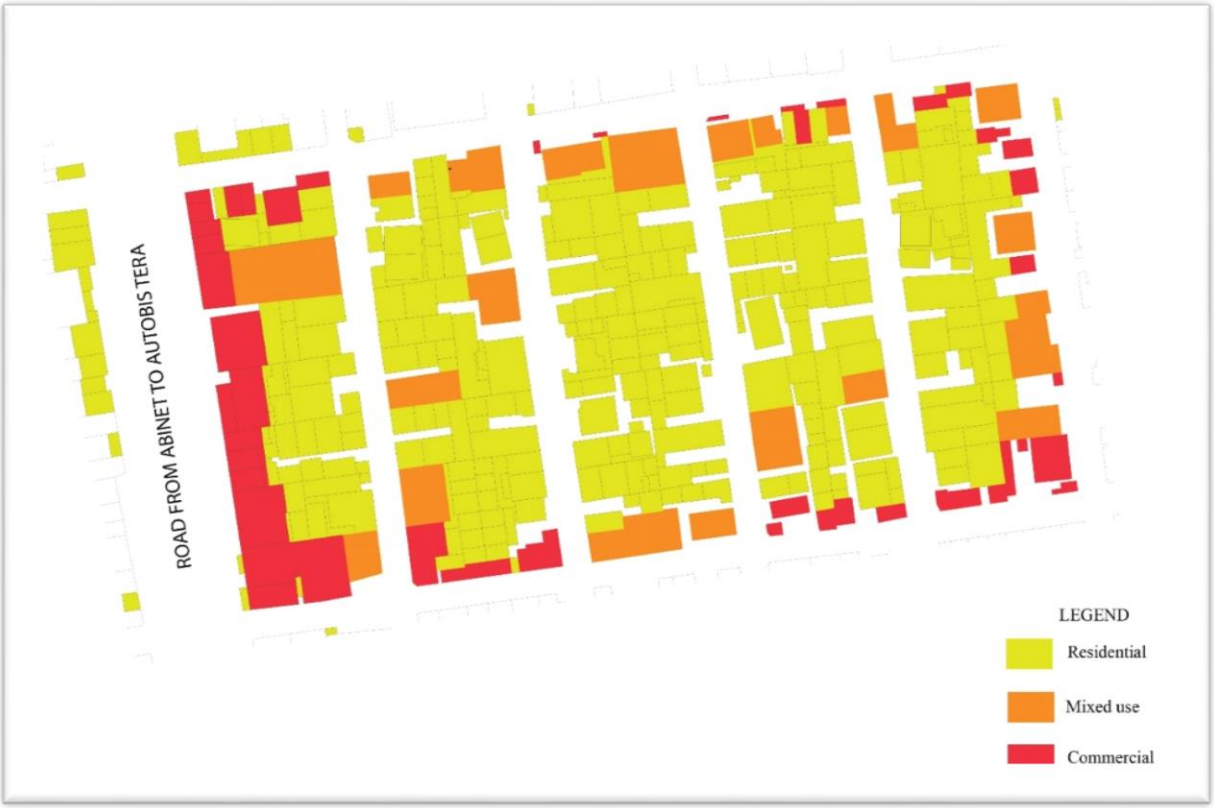
Figure 4.6 Road side activities and lack of proper sewerage system and solid waste disposal


Source: Author

4.6.4 Land Use

The land use of the selected site is identified as residential area on the structural plan of the city which is done up to the block level. However, though the area is dominated by residential buildings, during the site visit the researcher have observed that there are commercial buildings especially along the street from Abinet to Autobis Tera (the largest Bus Station in the City) and there are also buildings used for both residential and commercial purposes in the inner part of the neighborhood.

Figure 4.7 Existing Land Use of the selected site



Source: Developed by Author

4.6.5 Tenure

According to the data from Addis Ketema sub city urban planning office, the majority of this houses belong to petty traders that are common among slum communities/localities where unauthorized residents that converted themselves into landlords have occupied any available open space and built small houses for rent as a means of income. But, during the Communist Regime (known as Derg), these rented out houses were nationalized and came to be known as "kebele houses" which are owned by the government (In July 1975, all urban land and rental dwellings in the country being nationalized under the Proclamation No. 47.) Henceforth, the government took the responsibility of administrating the nationalized houses under two separate organizations: Woreda (formerly known as Kebele) administration that administers those houses with a rental value of less than 100 Birr while those houses with a rental value of more than Birr 100 were put under the Agency for the Administration of Rental Housing (Elias, 2008).

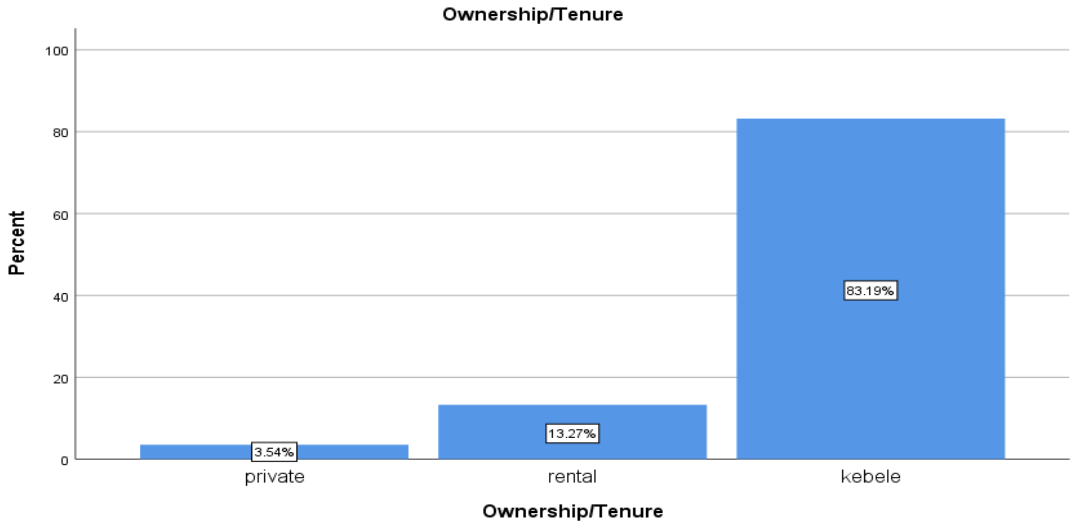
The surveyed data also shows that most of the houses within the study area are government owned. There are also houses that are attached to the original houses by way of an extension construction where the residents further rented them out to other people who joined the slum thus further aggravating the already dismal situation. Very few housing units in this study site are privately owned. As depicted by the table below, among the surveyed sample respondents only four of them own their housing units privately where the majority, 109/113, of the respondents live in government owned quarters.

Table 4.2: Home ownership/Tenure of respondents in the study area.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Private	4	3.5	3.5	3.5
	Rental	15	13.3	13.3	16.8
	Kebele	94	83.2	83.2	100.0
	Total	113	100.0	100.0	

Source: Own survey

Figure 4.8: Ownership/Tenure of the respondents in the study area



4.6.6 Housing Condition

The houses in the study area are generally single-story mud and wood construction, glazed with corrugated iron sheet and are found in a dilapidated condition due to their poor construction in terms of material used (mud mixed with straw, timber and corrugated iron) and poor maintenance where that matters considering the inadequacy such housings suffer, shelters and unhealthy at that which cannot qualify as housing units meeting too overridingly basic standards. How people live in such a condition at this time and age is a puzzle or an anomalous Pandora box baffling at best to many who use their human mental faculties right. Most of the houses are built wall to wall with little or no ventilation access. Considering their visual aspect, most houses from outside convey an impression of aging and decay, hopelessness of unparalleled proportions. This is an extreme corner of a worst case scenario state of affair which shouldn't be allowed to continue unfolding or rolling out at any cost thus the strong opinion of the researcher on the introduction section for the government to resettle all slum residents into government buildings swiftly and aggressively with or without their permission or consent until a permanent solution is put in place, as part of which intervention all slums should cleared off the face of the City. Any government cannot identify itself as a representative of all citizens while allowing the existence of such an unacceptable at any cost worst case scenario.

Figure 4.9: Housing condition in the study area

Source: Author

Additionally, data related to average total area, average number of rooms per house and availability of basic amenities like toilet and kitchen were collected and analyzed in this study just to meet or

deal with standard study requirements or parameters. Accordingly, the average total area of the houses in the study area is 14.4m^2. The table below presents the maximum, minimum and average total area of houses in the study area.

Table 4.3: Average area of housing units (in m^2), surveyed respondents

N	Valid	113
	Missing	0
Mean		14.4
Median		12.0
Mode		12.0
Minimum		4.00
Maximum		36.0

Source: Own survey

Likewise, data related to number of rooms per house in the study area is presented in the table below.

Table 4.4: Number of rooms per housing unit, surveyed reports

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	57	50.4	50.4	50.4
	2.00	47	41.6	41.6	92.0
	3.00	7	6.2	6.2	98.2
	4.00	1	.9	.9	99.1
	5.00	1	.9	.9	100.0
	Total	113	100.0	100.0	

Source: Own survey

Where average size of housing units is considered in light of number of rooms per house and household or family size thus to compare it with the morphological characteristics of the study area, it can be gleaned from the statistical outputs that excessive overcrowding, as expected, is the case across the board. It manifests in two coupled forms that feed each other. The place is

overcrowded with buildings and the buildings are overcrowded with people. The number of persons living in a single room stretches to as high as eleven people. This single room serves as a living space, bedroom, dining room and kitchen or workroom among other purposes besides its purpose of serving as an access corridor where individual toilets and kitchens are rare.

Table 4.5: Toilet facility of surveyed respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Own	2	1.8	1.8	1.8
	Common	111	98.2	98.2	100.0
	Total	113	100.0	100.0	

Source: Own survey

Almost all share a common toilet. This is not news, but an age old fact that is true for generations of these slum operators. Even the two out of the two respondents who claim to own the house privately don't have their own toilet.

Table 4.6: Kitchen facility of surveyed respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Own	23	20.4	20.4	20.4
	common	57	50.4	50.4	70.8
	No	33	29.2	29.2	100.0
	Total	113	100.0	100.0	

Source: Own survey

4.7 Socio economic condition

Despite the fact that a redevelopment intervention may help in changing the image of the Sub City and the city at large by creating a conducive environment and a healthy physical space to all residents/citizens, it is imperative for this to be matched with changes or improvements in socio economic conditions. Accordingly, in this study data related to socio economic situations of surveyed respondents is collected and analyzed as follows.

4.7.1 Household Size

According to surveyed respondents, the average household size in the study area is 4 people per household even though this is questionable considering the researchers inside knowledge where residents under report occupants or correct number of members for different reasons as it is

common across the city. According to the response from surveyed respondents, the maximum number of people per household is 11 and the minimum is 1. Even so, this average size imply overcrowding or over congestion which coupled with the fact that all housing units are attached to each other where they share walls on two or three sides of the house, and where the average size a housing unit occupies (and most units being with only a room or two to their name) being too small by any yardstick, it can be concluded that the slum area known as Abinet is inhabitable at best, being too densely populated putting residents to a myriad of potential dangers. according to basic laws found in any country's legal systems, governments cannot allow any individual or any community to cause or bring harm to their wellbeing and to the wellbeing of others under their care including small children they force to live in such a state or to the offsprings they bring to life which is inhuman for anyone human and sane in such a state to do. This brings the question of whether these residents are in such a state by choice. Because, rational thought has it that any animal let alone human who is impossibly cornered like this would react aggressively to change its situation. Where these slums comprises 60-70% of the land area and maybe population size, one would expect them to take over the city; this is especially so considering slum residents being among the first settlers in the city, hence a possible anomaly that warrants and begs for explanation. the researcher has noted that many if not all of the surveyed respondents and key informants (among/from the residents) are strongly resistant to any change including resettlement even though they reported otherwise for the obvious reason of being asked by an external investigator who they cannot trust with their deep seated or rather correctly deep hidden secrets that is the overriding reason explaining their in-human state of affair. Cross checking and verification mechanisms demonstrated that certain answers signify false reports or responses such as the above, like underreported size of household members where these tools are unable to prevent or rectify but point out. The researcher has noted undue attitudes, gestures, tones, reservations, artificial engagements or reactions, etc. that testified to the presence of telling a lie, resistance and providing misleading responses in addition to not reporting correctly as depicted by their reactions and responses not to mention outright distaste and defiance on the part of a good number of residents where they were invited to actively participate in the study.

Table 4.7: Household size of surveyed respondents

N	Valid	113
	Missing	0
Mean		4.5310
Median		4.0000
Mode		4.00
Std. Deviation		2.43146
Minimum		1.00
Maximum		11.00

Source: Own survey

4.7.2 Social interaction

In the study area, residents have strong neighborly ties even though this generic age old theory may not be true or good considering what came out of this so-called strong tie or communal relationship except members remained impossibly constrained in their own poverty trap or cages to help each other. Hence, the disarming theory that they depend on family, neighbors and friends and interactions thereof has never contributed meaningfully to inducing positive change that helped these communities individually and collectively to move out of the slum at any cost. Same residents and their offspring's are in the same dark slum for decades or generations. The researcher found the active involvement in the investigation disturbing. For any sane and healthy human, committing suicide comes naturally rather than to live in such a state. The rate of suicide should have been too high for residents of these slum areas, but reports don't indicate such an incidence that is different than other communities. This is something seeking further and deeper investigation into the psychology of these residents starting their mental health. The following response from a key informant testify to issues raised above including these slum residents are not that truly worried about their state as they are expected to: *"I am living here since 1984. I used to live with my husband, he passed away ten years back. He was retired soldier and he used to earn eight hundred birr per month and that was our income. After his death I am earning half of that. I had no children, I have no relatives visiting me, it's my neighbors that always watch over me, it's my neighbors' children who support me, they treat me as if I am their mother, they even call me "Emaye" (Dear*

Mommy). I always thank God for giving me such humble and generous neighbors. I would not be alive if not for my neighbours."

Another key informant said that: "*I was born and grew up here, I work here, I married here and had three children and they live here with me. I have not been anywhere before, I don't even know the nearest neighborhood very well, I am happy to live here, I have kind neighbors, we treat each other genuinely regardless of one's background, ethnic, religion or belief. We share all happiness and sorrow together, we raise our children together, there is nothing that belongs to individuals here, what we have is ours, I don't shy to ask support from my neighbors, when I am in trouble it's my neighbors who reach for me first than relatives that live far away. For me it's difficult to live without them. It's like a fish out of the sea."*

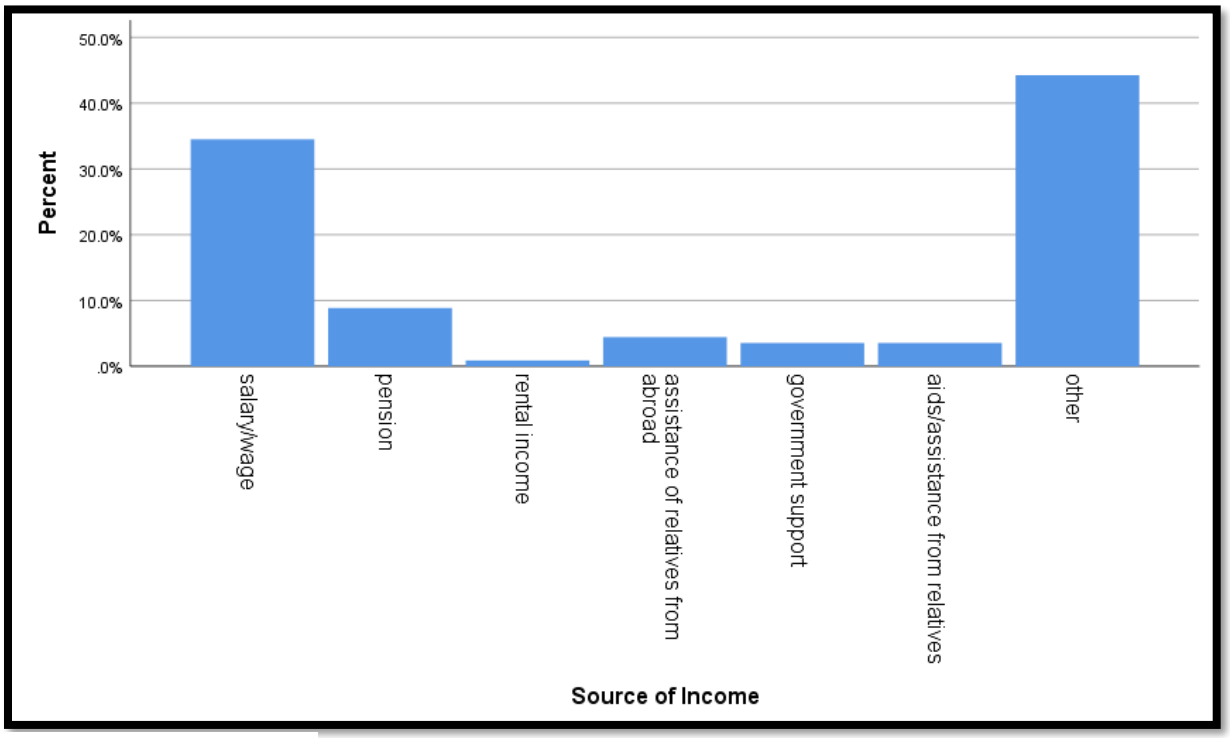
Despite the deteriorated quality of the shelters they chose to call home, the residents of the study area claim to be highly attached to the life of the slum community. They claim to enjoy a strong sense of solidarity and integration among themselves and they feel that they belong to their neighborhood. The so-called key informants attempt to justify that they survive because they help each other, even though that is too fluid an argument where one analyses their capacity and willingness to help each other considering the pile of challenges, pains and injustices they have to struggle with or against including absolute lack of opportunities for them to be productive citizens. Investigate their level of education or the effort they have mounted to date to spring out of their life and death situation and a wide unexplained or anomalous gap emerges. Most if not all are as good as illiterate where opportunities for literacy including to develop skills in many disciplines abound in many fronts and sectors. A little skill supported by a little experience in masonry or carpentry (re opportunities in the reportedly booming construction sector) pays much more than what many so-called middle class citizens earn. According to publicly available information, In Addis Ababa, a house maid gets a good Birr 1,500 minimum and Birr 5,000 maximum, to save, where decent accommodation/decent food are extra but quite significant payments, especially where one listens to the in-human condition these slum residents are in or chose to be in. Vacancies for Housemaids are plenty with choices that come in the form of accommodations like extra benefits that can be estimated to generate more than the salary they are paid increasing compensation that can be generated as a house maid to an estimated average of Birr 7,000. A skilled construction worker earns as much as Birr 300 per day working standard or normal hours

where there is ample opportunity for such workers to do overtimes almost always. By this rate, a skilled worker can earn as much as Birr 9000 to Birr 20,000, that is what a senior professional in a government office earns. Why remain in a slum? The following three subsequent sections attempt to present the income surveyed respondents reported or claim to generate and the reason they base their age old rhetoric of not wanting to be relocated because they would be far from their work places.

4.7.3 Sources of income

Most youth's in the study area engaged in activities like street vending and personal services such as shoe shining, car washing, carrying of goods, etc. while most of women are engaged in outdoor business activities like small trading along the pathways, such as the sale of cooked food, charcoal, second-hand clothes, vegetables and grains. Additionally, many households run small-scale commercial activities in their home such as small kiosks, home-made drinks bars, snack bars as well as small-scale repairing shops are concentrated in the area. These are the main sources of income to the slum communities. The graph below presents income source of the respondents and as it indicates, the majority of the respondents in the study area are engaged in informal business activities mentioned above.

Figure 4.10: Respondents' sources of income in the study area



Source: Own survey

4.7.4 Work location

This old inner-city residential neighborhood is not only meant to provide housing at rents that can be afforded by the reportedly (seeking verification by way of further deeper study) low-income residents but also provide, within the settlement areas, a wide variety of employment opportunities, especially for women and youth. The table below presents the location that the respondents are currently working at and the missing values represents those respondents who are not currently engaged in work due to various reasons i.e. age, retired, unable to find job, disability and etc. (which can be labeled as economically inactive even if not in view of the standard definition) even though these should have been excluded where only economically active respondents needs to be isolated and treated by the question. The reader is advised to take into consideration this assumption to equal or mean the 'missing values.' As revealed by the processed outputs, quite a significant proportion of the surveyed respondents reported that they are engaged in income generating activities which are available in their neighborhoods to which they have priority due to their positioning. The other larger set of respondents reported working out of their homes most of whom self-engaging themselves in petty trades. Combined, these two groups of respondents comprise 57% of all surveyed respondents.

Table 4.8: Work location of the surveyed respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Work out of my Home	18	15.9	24.0	24.0
	In my neighborhood	47	41.6	62.7	86.7
	No permanent working area/Where ever opportunities for work are	3	2.7	4.0	90.7
	Other work location within Addis Ababa	7	6.2	9.3	100.0
	Total	75	66.4	100.0	
Missing	111.00	38	33.6		
Total		113	100.0		

Source: Own survey

4.7.5 Household Income

As this study sought to test the feasibility of on-site resettlement housing project on the basis of affordability, data on household income of surveyed respondents was collected and analyzed in a bid to estimate the ability of the respondents and by inference the residents, to pay for new housing by applying the housing expenditure-to-income ratio and assuming they have the willingness. According to collected and processed data and the output thereof, the claimed and reported average monthly household income of the surveyed respondents stands at Birr 2818.14.

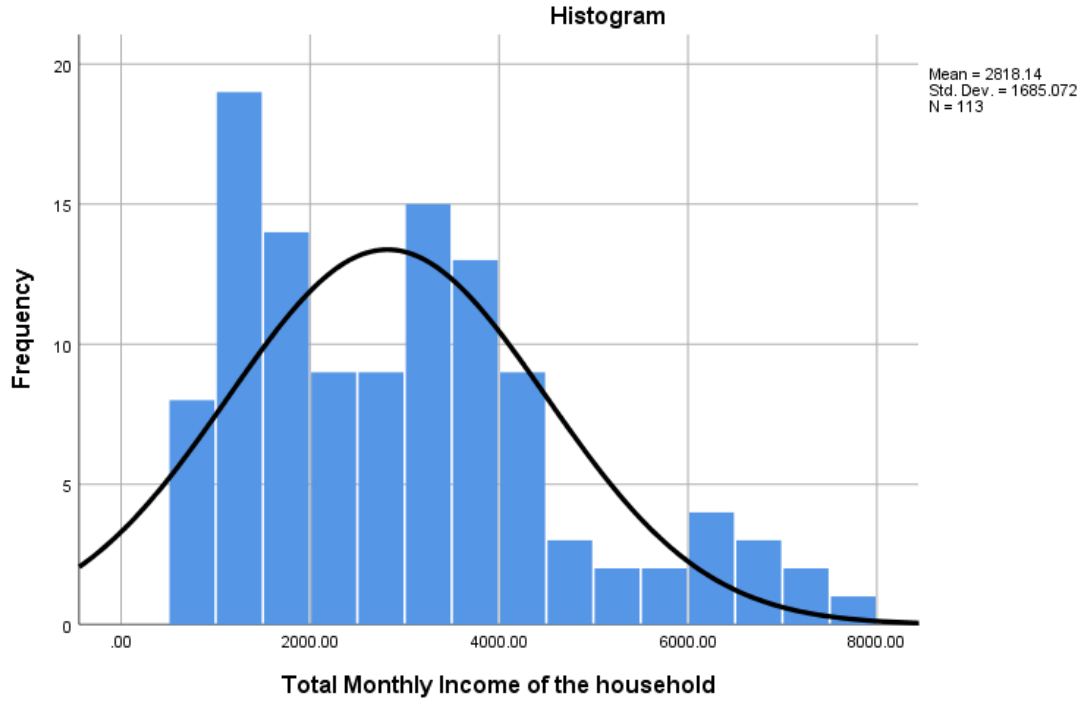
Table 4.9: Reported Monthly income of surveyed respondents (Birr/household)

N	Valid	113
	Missing	0
Mean		2818.1416
Variance		2839467.051
Skewness		.850
Std. Error of Skewness		.227
Minimum		500.00
Maximum		7500.00
Percentiles	25	1426.9231[a]
	50	2700.0000
	75	3609.6154

Source: Own survey

But, it may not always be appropriate to use averages to get housing expenditure-to-income ratio; measures such as the median, the lower quartile or the 10th percentile may give a more useful picture in some contexts (Mark R.; Grant M., Scobie & Brian H., 2006). Accordingly, looking at the minimum, maximum and variance, monthly household income of the respondents in the above table, it can be observed that there is huge gap which may imply presence of different income groups even if as proxy indicators of livelihood/wellbeing including living condition suggest otherwise unless they are sharing their incomes evenly too in addition to their emotions. Diagram bellow supports the above scenario.

Figure 4.11: Variation of monthly income among surveyd respondents



Source: Own survey

Thence, in this particular case in point, estimating the ability of the respondents to pay for new housing using the average monthly income may not be appropriate to generate a valid figure. Based on assumption of Mark R. et al. (2006), if we take the 10th percentile, it will be Birr 1000. However, to best estimate the residents' ability to pay for new housing, in this study the researcher preferred to classify the respondents in to four clusters using K-means cluster.

Table 4.10: Income cluster of surveyed respondents

Number of Cases in each Cluster		
Cluster	1	10.000
	2	50.000
	3	37.000
	4	16.000
Valid		113.000
Missing		.000

Final Cluster Centers				
	Cluster			
	1	2	3	4
Total Monthly Income of the household	6550.00	1328.00	3104.05	4481.25

Source: Own computation

Based on the above analysis, out of the total respondents, 10 (8.84%) claim to earn a lofty (for a slum resident/to report so) average monthly income of Birr 6550 per household while a significant number of respondents i.e. 50 (44.24%) of the total respondents earn average monthly income of only Birr 1328 birr per household. thirty seven, i.e. 32.74% respondents out of the total surveyed make an average monthly income of Birr 3104.05 per household and 16 (14.15%) of the total respondents get average monthly income of Birr 4481.25 per household. In making use of these income data sets, it is to be assumed that a household has an average size of four members which may need to be further verified against public records to find out if this indeed is true because where the scenario changes these respondents and by that residents may report am inflated figure than here reported.

CHAPTER FIVE

ASSUMPTIONS AND FEASIBILITY STUDY

5.1 Introduction

This chapter has two sections. The first section deals with assumptions applied in this study. Under this section assumptions regarding highest and best use of the study area, housing, building height, BAR, number of households in the study area, private home owners, mortgage payment, housing units, FAR, development costs, financing and revenues are presented. The second section is feasibility study. This section presents discounted pay-back period and sensitivity and risk findings of the project.

5.2 Assumptions

5.2.1 Highest and Best Use (HABU)

In this study, the highest and best use of the study area is identified as mixed use consisting of ground and first floor commercial while the above 11 floors shall be allocated for residential quarters. The reasons behind this assumption are:

- The existing land use of the study area is highly dominated by residential. So, any development activity in the study area is expected to accommodate existing people.
- The study area is very close to Merkato, the largest open market and economic center of the city and the country as well. Hence, retail activities should also be introduced. Such that the revenue gained could financially benefit the development.

So, bearing in mind the above two major reasons, the proposed development is assumed to be mixed use.

5.2.2 Housing scheme

In this study, 20/80 housing scheme is assumed to be constructed. The reasons behind choosing this housing scheme are:

- It is one of the housing schemes identified by the government as low cost or affordable by low and middle income people.
- This housing scheme has unit mixes from studio to three bed room typologies.
- Recommended by Norms and Standards of the Addis Ababa Structural Plan Components to accommodate all income groups.

5.2.3 Building height

Based on the building height regulation of the Addis Ababa cities' structural plan, the minimum building height allowed in the study area is $G^{+}5$ and the maximum will be determined accordingly. Additionally, the 20/80 housing scheme building typologies are $G^{+}4$, $G^{+}7$ and $G^{+}12$.

So, for this study the building height is assumed to be $G^{+}12$ which is compatible with building height regulation as well as 20/80 housing scheme typologies. Also, it is recommended by Norms and Standards of the Addis Ababa Structural Plan Components to maintain the density by encouraging the change of housing typology from single to multi story walkup buildings (through condominium and other systems) and introduce required services within the space obtained. Thus, among the given alternative $G^{+}12$ is assumed to be appropriate.

5.2.4 Building Area Ratio (BAR)

According the structural plan manual of Addis Ababa, up to 75% of the total area can be used for built up. Accordingly, in this study:

- 75% of the total area is assumed to be possible for built up.
- 20% of the total area is allotted for circulation and
- 5% of the total area is allotted for open space and greenery.

Therefore, in this study, from the total area (8000 m^2), 75% (6000 m^2) is assumed to be used for built up, 20% (1600m^2) will be allotted for circulation and 5% (400m^2) is assumed to be reserved for open space and greenery.

5.2.5 Households in the study area

Since the land use of the study area is highly dominated by residential quarters, in order to estimate the number of households currently living in the study area, counting the number of buildings in the study area using GIS software is applied. Based on this, the number of buildings area is assumed to be equal to household number. Accordingly, the number of households in the study area is assumed to be 359.

5.2.6 Private home owners

Though private home owners are very few in the study area, any development activity should also consider them. Hence, in this study, two options are provided for individual home owners. The first option is, If the right holders want to live or run business within the area, floors equivalent to

his/her original assets will be guaranteed by making an advance request for obtaining floors of a building to be constructed within the area. If they do not prefer the first offer, they may make a request to that effect, thereby obtaining compensation from the government as per the regulation to move out to another place. However, based on key informants in the study area the researcher interviewed, this study assumes as if households want to live in their current location.

5.2.7 Mortgage payment

As this study sought to test the feasibility of on-site resettlement housing project mainly to provide affordable housing, for low and middle income households. Towards this end, the income status of the existing residents was analyzed in the previous chapter of this study. It will be applied to estimate the ability of the residents to pay for new housing and to determine unit mixes needed based on the income level of the households. Based on their income, the households are classified in to four clusters. Accordingly, from the total households currently living in the study area, 8.85% (32) households earn 6550 average monthly income, 14.16% (51) households earn 4481 average monthly income, 32.74% (118) households earn 3104 average monthly income and 44.25% (159) households earn 1328 average monthly income.

Thus, using affordable housing threshold applied in this study (maximum 20% of average monthly income for housing), the ability of each clustered households to pay for new housing is assumed to be 1310, 896.2, 620.8, and 265.6 Birr per month respectively. With this monthly mortgage payment, each clustered household are assumed to own three bed room, two bed room, one bed room and studio houses accordingly. See table below.

Table 5.1: Summary of assumed income and housing distribution

Clusters	Average monthly income (Birr)	% of households	Number of households	Housing type	Monthly mortgage payment (20% of avg. monthly income, in Birr)
1	6550	8.85	32	Three bed room	1310
2	4481	14.16	51	Two bed room	896.20
3	3104	32.74	118	One bed room	620.80
4	1328	44.25	159	Studio	265.60

Source: Own computation

5.2.8 Housing units

The housing units assumed to be constructed in the study area are 32 three bed room, 51 two bed room, 118 one bed room and 159 studios. Based on 20/80 housing scheme, the area of each housing types is 105, 75, 55, and 30 meter square respectively. See table below.

Table 5.2: Summary of Housing type by Number of Housing units and area

Housing type	**Number of units**	**Area (m^2)**	**Total area (m^2)**
Three bed room	32	105	3360
Two bed room	51	75	3825
One bed room	118	55	6940
Studio	159	30	4770
Total			
	360	**265**	**18895**

Source: Own computation

Accordingly, the building height assumed is G^+12 and to occupy four households per floor. i.e. the ground and first floor are assumed for retail and the other eleven floors are for residential. Thus, in order to resettle the existing residents, seven buildings are assumed to be constructed. See table below.

Table 5.3: Summary data of assumed building

Building height	G^+12
Floor area	265
Purpose	Ground and first floor for commercial and the other eleven floors for residential
Number of households per floor	4
Number of households per building	44
Number of building assumed to be constructed to house the existing households/residents	7
Total area for commercial purpose (m^2)	3710
Total area for residential purpose (m^2)	18895

Source: Author

Therefore, bearing in mind the spaces used for circulation in the buildings and spaces among buildings, the maximum area to construct seven buildings is assumed to be 2170 m^2. Thus, out of the space allotted for built up (6000m^2) on the basis of building area ratio, 36.16% (2170m^2) is assumed to be enough to resettle the existing households.

Figure 5.1: Typical floor plan of 20/80 housing scheme ie assumed to be constructed in this study

Source: Ministry of Urban Development and Construction, 2013

5.2.9 Floor Area Ratio (FAR)

Floor Area Ratio is a measure of the intensity of development. It is calculated by dividing the total gross square footage of the building by the total square footage of the site the building sits on. A one-story building that covers the entire site it sits on has a floor area ratio of 1. Likewise, a 2-story building that covers half the site it is on has a floor area ratio of 1 (City of Berkley, 2008). Accordingly, in this study, seven buildings with twelve story each are assumed to be constructed. Thus FAR becomes 2.78. See table below.

Table 5.4: Assumed Floor Area Ratio (FAR)

Building height	$G^{+}12$
Number of buildings	7
Floor area each story(m^2)	265
Total area of the study area (m^2)	8000
FAR	2.78

Source: Author

5.2.10 Development Costs

5.2.10.1 Construction cost

The Study sought to use the most recent and reliable data possible, to best reflect current market and financial conditions. Thus, construction cost of condominiums was used as a key data. Because, this study used condominium housing scheme to test the feasibility of the project and where this condominium housing is believed to be low cost so they used low cost construction material and techniques in relation to other buildings. But, finding data related to construction cost of condominiums was very challenging due to a couple of reasons. First, cost of construction materials changes frequently, second, so far government was providing some materials such as (cement, HCB) in condominium construction and the cost of these materials are neither documented nor clearly specified on contract agreement. However, UN-habitat (2017, P.48) stated that the price of condominium houses is directly related to their construction cost, though cross-subsidy is applied. Additionally, while presenting the Ministry's six-month report before the House of People's Representatives (HPR), Jantirar Abay, Minister of Urban Development and Construction, reported that existing regulation stipulates the end price of the house being valued to the prevailing construction cost at which it is completed and believed to be transferred (Yonas Abiye, 2019).

Accordingly, to estimate construction cost, this study used recent transferring price of condominium houses presupposing the price of house is equal to the construction cost. In order to validate this assumption, contractors' fee of other condominium housing scheme and the price by which the houses transferred with, were crosschecked and found out to be somewhat similar. Hence, based on 13th round condominium transferring price, construction cost for 20/80 housing scheme is assumed to be 4511.27 Birr per meter square and includes:

- Site preparation cost;
- Contractors' fee;
- Material cost;
- Labor cost;
- Equipment cost;
- Architectural and Engineering fee and
- Overhead cost.

5.2.10.2 Cost of resettlement during the construction period

According to key informants in the study area the researcher interviewed, if the government promised to resettle them on their current location, they are willing to resettle in temporary shelter during the construction period. However, this study used the recent resettlement method government applied on residents around Bulgaria area, that it pays average home rent price for relocated households. Accordingly, this study assumes that, government will pay 3,000 Birr for each household for the construction period.

5.2.11 Financing

So far, government was borrowing many from Commercial Bank of Ethiopia for financing housing development projects. Accordingly, this study assumes Commercial Bank of Ethiopia as a finance source with 7.5% interest.

5.2.12 Revenues

The anticipated revenues from this project are described as follows:

5.2.12.1 Monthly mortgage payments

Owners of the houses are expected to pay monthly mortgage payment as per their housing type. This payment is assumed to be started after they get in to the house. Thus, total monthly mortgage payment is 203,111 Birr.

5.2.12.2 Revenue from the sale of shops

The ground and first floors are assumed to be used for commercial purposes and the total area this floor covers is is 3710m^2. Due to the fact that most private buildings in Addis Ababa provide shops for rent than for sale and in contrast shops in condominiums are meant to be for sale, to estimate

the sale price of these shops, recent sales data of condominium shops nearby neighborhoods were used in this study. Oromia International Bank (OIB) gave the highest offer for an auction to buy condominium shops under the middle-income housing scheme. The shops at the sites of Senga Tera and Crown, got the highest offer of 171,000 Birr and 115,000 Birr per square meter, respectively while the Addis Ababa Saving Houses Development Enterprise (AASHDE) set a floor price of 19,364.30 Birr per square meter (Addis Fortune, 2019).

The study area is highly business area in relation to both Senga tera and Crown sites. Thus, the sale price in the study area would not be less than the price in both sites. However, in order to increase the credibility and trustworthiness of this study, the sale price set by Addis Ababa Saving House Development Enterprise (AASHDE) were used as a benchmark price presupposing that, the sale price may not be uniform throughout the floors. Accordingly, the sale price of commercial floors is assumed to be 19,364.30 Birr per meter square.

5.2.12.3 Revenues from the sale of remaining land

The other potential source of revenue assumed in this study is, revenue gained through selling the remaining vacant land. The recent renewal projects can consider this assumption. On the above assumptions, from the total area assumed to be for built up (6000m^2), only 36.16% (2170m^2), is assumed to be enough for the development. The other 63.83% (3830m^2) can be leased.

Accordingly, considering recent sale price of vacant land in nearby locations, Banks have become known for their brick-and-mortar investments, some of them at high prices. Two years ago, Nib International Bank offered 101,111 Birr for a square meter of land at the Lideta Meliso Malmat (Lideta Redevelopment) site – the highest at the time for the Addis Ababa Housing Agency (Addis Fortune, 2019). Additionally, one year ago, 255,550 Birr is offered for a meter square of land around Merkato (Capital, 2019) area which is very close to the study area. However, this study assumed the minimum land sale price in relation to the above offers which is 31,000 Birr per meter square.

Table 5.5: Summary of Assumptions

Assumptions		**Remark**
Highest and Best Use of the site (HABU)	Mixed residential development	Based on site analysis undertaken and Referring Norms and Standards of Addis Ababa Structural Plan Manual
Housing Scheme	20/80 Condominium Housing	Identified by government as Affordable for low and middle income people and includes all housing typologies (studio up to 3bed room type)
Building Height	$G^{+}12$	based on building height regulation of Addis Ababa city structural plan, norms and standards and the housing scheme tasted.
Building area ratio (BAR)	From the total area of the site: - 75% for built up - 20% for circulation and - 5% for greenery	Based on Addis Ababa Cities' structural plan manual and its Norms and Standards.
Households to be resettled	All existing households (359)	Based on the objective of on-site resettlement and site analysis undertaken in this study.
Monthly mortgage payment in Birr	1310 for 3bed room, 896.20 for 2bed room, 620.80 for 1bed room and 265.60 for studio.	Based on affordability threshold (max.20% of household income for housing) and economic analysis undertaken in the study area.
Housing units	3bed room=32 2bed room=51 1bed room=118 and Studio=159	Based on households' income analysis undertaken and the ability of households to pay for new housing.

Floor area Ratio (FAR)	2.78	Based on the Norma and Standards of Addis Ababa Structural Plan Manual that it encourages vertical density.
Development Costs (Birr)	Construction cost 101,977,258.35	Estimated based on the recent condominium transferring price, presupposing that, construction cost is equal to the price.
	Resettlement cost for the construction period, 25,848,000	Assuming 3,000 Birr average home rent price.
Total development cost (Birr)	127,825,258.35	Construction cost + resettlement cost during construction period.
Finance	Loan from Commercial Bank of Ethiopia	7.5% interest rate
Construction period	Two years	
Revenue sources and amount in (Birr)	From mortgage payment, 203,111 per month	Home owners will pay monthly mortgage as per their housing type
	From sale of commercial floors, 71,841,553	Calculated using min. sale price set by AASHDE, for condominium shops at Senga Tera site, 19,364.30 Birr/m^2
	From sale of remaining vacant land other than reserved for future demand 118,730,000	Calculated using min. local land price, 31,000 Birr/m^2

Source: Author

5.3 Financial Feasibility

5.3.1. The Discounted pay-back Period

Under discounted payback method, an investment project is accepted or rejected on the basis of payback period considering time value of money. Payback period means the period of time that a project requires to recover the money invested in it. It is mostly expressed in years.

Mathematically, Discounted Payback Period (DPP) is the period, N_d for which:

(1) $$\sum C_t / (1+k)^t = C_0$$

Where C_0 is initial cash outlay, C_t is cash inflow in period 't' and 'k' is the cost of capital.

This study applied:

- Interest Rate 7.5%;
- Current inflation Rate 8.5%;
- Discount Rate = Interest Rate + Current Inflation Rate = 16 %;
- The project is assumed to take two years; thus, cash inflow starts at third year.

Accordingly,

PV Cash Inflow year three = $195,367,332/1.16^3 = 125,163,580.40$

PV Cash Inflow year four = $2,437,332/1.16^4 = 1,346,116.76$

PV Cash Inflow year five = $2,437,332/1.16^5 = 1,160,445.48$

PV Cash Inflow year six = $2,437,332/1.16^6 = 1000384.04$

Therefore, -127,825,258.35 + 125,163,580.40 + 1,346,116.76 + 1,160,445.48 + 1000384.04 = 845,268.33 and fully covered. Using below formula,

(2) $$\text{Payback period} = \text{Years before full recovery} + \frac{\text{Unrecovered cost at start of the year}}{\text{Cash flow during the year}}$$

Discounted Pay Back Period = 5 + (155,155.71/1000384.04) = 5.15 years.

Generally, the project can recover the cost within 3.15 years or 3 years and 4 months after completion (assuming construction period of 2 years).

5.4 Sensitivity and Risk analysis

In evaluating a project's feasibility, the analyst makes a set of assumptions both on the development costs and on income which are believed to have a high expectation of occurring. Sensitivity analysis is most common method in treating uncertainty and risk in the situation when the analyst can obtain good estimates of the probability of future conditions and the economic effect of these conditions. Sensitivity analysis is used to determine how the optimal solution is affected by changes, within specified ranges, in the values of the project economic parameters. Accordingly, in this study, the results of this analysis show that the financial feasibility of on-site redevelopment projects is sensitive to current conditions in the construction materials market and completing the project as per the schedule since financing is assumed loan from a Bank.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study tested the feasibility of on-site resettlement housing project which is recommended as an option by Urban Housing Development Policy (Ministry of Works and Urban Development 2009). This study used Abinet area as a case example, which is one of old inner-city neighborhood of Addis Ababa, located in Addis Ketema sub city Woreda 01.

In this study, a major emphasis is given to housing affordability beside testing the financial feasibility of the project. In this regard, the household monthly mortgage expenditure as a proportion of household income has been used to determine affordability. After reviewing of different literatures, maximum 20% of households' monthly income for mortgage payment is assumed to be fair. Accordingly, to estimate how much this 20% is, an in-depth socioeconomic analysis of the study area was undertaken.

The other purpose of the study was investigating the financial feasibility of the project. This study applied Discounted Pay Back period as a financial tool to test the project feasibility. With all considerations of development cost and revenues, the discounted pay-back period of this project is found to be three years and four months. Though, this study is open ended, from the researchers' point of view, it can be concluded that on-site resettlement housing project is financially feasible.

The finding of this study also shows the process of how a feasibility study affects decision making of redevelopment interventions. Design, density, land allocation, construction period, financing of the redevelopment intervention are subject to the results of a feasibility study conducted at the beginning of the redevelopment project.

Generally speaking, given the findings and analyses of this study, on-site resettlement is seen as an important part of inner-city slum renewal strategy that it maintains socioeconomic wellbeing of the residents while improving the housing, physical, infrastructure, environmental condition of slum areas and above all that it changes the image of the city.

6.2 Recommendation

A feasibility study is the demonstration of a proposed project's viability. The central subject of this thesis is the relevance of feasibility studies for renewal projects. It should always be kept in mind that feasibility studies do not guarantee the success of a project but rather offer important insight. Accordingly, the following points are identified as recommendations and future development options:

- Although increasing housing production is an important component of a comprehensive solution for the city's housing crisis, production alone is unlikely to ensure the availability of affordable housing at every income level, in every neighborhood. Additionally, housing affordability is not merely financial issue, rather it includes social wellbeing of the vast community. Hence, government should understand the real situation before applying any redevelopment intervention.
- The evaluation of the cost/benefit ratio of the redevelopment interventions is essential in order to take the most appropriate decisions. In addition to the cost of the intervention, the redevelopment economic consequences should be considered in terms of using the land effectively. This can be attained through applying various architectural and urban design solutions.
- As it is indicated on the financial evaluation of this study, due to the fact that land value is high, inner-city redevelopment interventions are promising sources of income. Therefore, particular attention should be paid to the management and realization criteria of the interventions.
- Finally, as it is indicated on sensitivity and risk analysis, the success or failure of such projects is highly dependent on financial source and project duration. Thus, this study recommends that the government should look for alternative financing mechanisms other than loan from banks and within the emphasis of avoiding risk such projects should be accomplished as per their schedule.

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ANNEXES

Annex I: Questionnaires to be filled by sample households from the study area

Addis Ababa University

Ethiopian Institute of Architecture Building Construction and City Development

Questionnaire prepared for residents around Abinet area.

Master of Art in Urban Land and Property Valuation (ULPV), EiABC.

Introduction

First, I would like to thank you for your cooperation. This questionnaire is prepared for Master's thesis entitled "**Feasibility Study for On-site Resettlement Housing Project the case of Abinet area".** This study is being conducted for partial fulfillment of Master of Art in Urban Land and Property Valuation and this questionnaire will be used for only academic purpose and responses will remain confidential.

Description

- The questionnaire has 10 sections and each section have their own different listed questions. Children under 14 years old and individuals who has problem not to answer the question can answer by asking other family members. But their reason not to answer the questions should be mentioned.
- It would be more preferable if the household head or the spouse answered the questions. Unless and other wise any household member can answer the questions.
- If the respondents are not willing to answer any question, write "000" in the given box.
- If the question not concern them, write "111" in the box
- For question with multiple answers, please mark on all of them
- If the answer is out of the given alternatives, please select the "other" option and write their answer

Section 1. Survey details

1. Date of interview (dd/mm/yyyy) _____
2. Name of interviewer _____
3. Code (from the map) _____

Section 2. Household data

4. Name of the respondent _____
5. home ownership
    1. private
    2. rental
    3. Kebele
    4. Other
6. Household number Total _____ Female _____ Male _____

Section 3. Household data – sub section 2

Fill household's detail information in the following table

	7	8	9	10	11	12	13
No	Name of household member	Relationship to household head	sex	age	Marital status	Job status	Education level or vocation
		1. Head (male) 2. Head (female) 3. Wife 4. Husband 5. Step child of male 6. Step child of female 7. Son/daughter 8. Parent of head or spouse 9. Sister/brother of head or spouse 10. Other relatives 11. Non-relatives	1. Male 2. Female	Specify with number	1. Never married 2. Married 3. Divorced 4. Separated 5. Widowed	0.No job 1. Regular 1a. government 1b. NGO 1c. privately employed 1d. private business 1e. Religious institution 1f. other 2. Irregular 2a. private 2b. employed 2c. other 3. Retired 4. never employed	1. KG 2. 1 -4 3. 4 -8 4. 9 -10 5. 11 -12 6. Technique and vocational 7. Special training certificate 8. Diploma 9. First degree 10. Second degree 11. PhD 12. Other professions 13. Other
1							
2							
3							
4							
5							
6							
7							
8							

9							
10							

Section 4. Household economic status

No	14. Name	15. Job	16. current working area	17. source of income			18. monthly income
	Name of household members	0.No job 1. Regular 1a. government 1b. NGO 1c. privately employed 1d. private business 1e. Religious institution 1f. other 2. Irregular 2a. private 2b. employed 2c. other 3. Retired 4. never employed	1. Home 2. In my neighborhood 3. I don't have constant working area 4. If it is in Addis Ababa mention the area 5. If it is out of Addis Ababa mention the place 6. Other (please specify)	1. Salary/wage 2. Pensions 3. Rental income 4. Assistance of relatives from abroad 5. Government support 6. Aids/assistance from relatives 7. Other (please specify) Note: if more than one use 3 columns			
1				1	2	3	
2				1	2	3	
3				1	2	3	
4				1	2	3	
5				1	2	3	
6				1	2	3	

7				1	2	3	
8				1	2	3	
9				1	2	3	
10				1	2	3	

Section 6. Household economic status

No	19. household expenses	20. monthly expenses (in Birr)
1	Home rent	
2	Saving for condominium	
		Total

Section 7. Household's working area and transport expenses

No	21. name of household members	22. transport mode used to go to work	23. working area	24. Distance from home to work (in Km)	25. travel time from home to work (in minute)	26. how often you go to work?	27. monthly transport cost (in birr)
		1. Walking 2. Two wheels 3. Vehicle 4. Bus 5. Taxi 6. LRT 7. Own car 8. Other (please specify)	1. inner city 2. outskirt	1. <3 2. 1-5 3. 5-10 4. 10-15 5. 15-20 6. >20	1. <10 2. 10-30 3. 30-60 4. >60	0. No 1. Daily 2. Working days 3. Weekend 4. Sometimes 5. Rarely	0. 0 1. <100 2. 100-300 3. 300-500 4. 500-800 5. 800-1000 6. >1000
1							
2							
3							
4							
5							

6							
7							
8							
9							
10							

Section 8. About the house you are living in.

28. area (in m^2)	29. number of rooms	30. bathroom	31. kitchen
		1. Own 2. Common 3. Don't have 4. Other (please specify)	1. Own 2. Common 3. Don't have 4. Other (please specify)

Section 9. About home and neighborhood preference

32. Suppose the neighborhood you are living in is selected to be redeveloped and you got the chance to live here, do you want to live here again?
    1. Yes
    2. No

33. If you say "yes" from the given alternatives which one do you think you can afford?

    1. Studio
    2. One bed room
    3. Two bed room
    4. Three bed room

Section 10. Only for privet ownership

34. Suppose the neighborhood you are living in is to be redeveloped, from the given compensation alternatives which one do you prefer?

1. Payment in cash
2. Plot of land
3. Equivalent house and live here
4. Other (please specify)

Annex II: interview guide for key informants from the community in the study area

The following list of questions are used as a starting point for key informant interviews of residents in the study area. In cases of indistinct issues, follow up questions or explanations were asked.

Current place of residence: _____
Sex: _____

Age: _____

1. How long have you been living here?
2. What is your education level?
3. What is your household income?
4. How is the access to job opportunities in your neighborhood?
5. Have you ever lived in other places?
6. Why do you prefer to live here?
7. What do you think that makes your neighborhood different from other areas?
8. How do you describe your neighborhood?
    - The environment
    - The infrastructure
    - The Facilities etc.
9. How do you describe the social interaction in your neighborhood?
10. Do you participate in community organizations (ekub, eddir, mahiber)?
11. What are the major challenges and opportunities in your neighborhood?
12. Do you think the challenges can be solved?
13. What do you think is solution for the challenges?
14. Have you ever heard about inner-city renewal?
15. What is your understanding about inner-city renewal?
16. What do you think government should do?
17. Have you ever heard about on-site resettlement?
18. How do you understand on-site resettlement?
19. Do you think on-site resettlement can be a solution for inner-city housing challenge?
20. Do you think it is possible to redevelop the neighborhood?
21. What do you think would be challenge if the neighborhood redeveloped?

22. What do you think would be solution for the challenges might happened?
23. What preconditions do you think should be fulfilled before redevelopment?
24. What will be your response if the area is to be redeveloped?
25. Do you think the current condominium mortgage payment is affordable?
26. How much do you think you can pay for new housing?
27. How do you compare it with your current household income?

Additionally, for private home owners in the study area

28. Do you know the laws and guidelines for urban redevelopment and resettlement?
    - If yes how do you know them?
    - What do you think is your right on your property?
    - How do you understand expropriation?
    - What type of compensation mechanism do you prefer?

Annex III: Interview guides for officials in housing development and land management offices.

The following list of questions were used as a starting point for key informant interviews of officials in housing development and land management offices. In each question the researcher probes using a follow up questions for explanation.

Position _____

1. What was the project objective?
2. Have conducted a feasibility study?
    - If no, why?
3. If yes,
    - At what stage is it conducted?
    - Do you think it is appropriately conducted?
    - What was the content of the feasibility study?
    - What was the procedure?
    - What was the final feasibility result?
    - Do you think the feasibility result affected the project decisions?
    - How do you evaluate the feasibility result with what finally got?

4. What was the challenges you faced in conducting feasibility study?
5. Have you consulted the community?
6. What was their demand?
7. How do you bargain with private home owners?
8. Have you considered the affordability issue?
9. How was the community's ability to pay?
10. How much was the project cost?
11. What was financing source?
12. Do you think the community is happy?
13. Do you think it is successful with what you have planned?
14. Finally, what do you recommend for a person conducting feasibility study?