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Malpractices in Government-Sponsored Housing Projects and their Impact on Affordability: The Cases of Bole Arabsa and Koye Feche Project Sites in Addis Ababa, Ethiopia

MASTER'S THESIS

This thesis is submitted to the Ethiopian Institute of Architecture, Building Construction and City Development (EiABC) for partial fulfillment of all requirements of the Master of Science in Housing and Sustainable Development

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Addis Ababa, Ethiopia

Certificate

This is to certify that the thesis submitted by Mihretu Daniel Mekuria, entitled "Malpractices in Government-Sponsored Housing Projects and their Impact on Affordability" in partial fulfillment of the requirements for the degree of Master of Science in Housing and Sustainable Development, complies with the regulations of the University and meets the accepted standards concerning originality and quality.

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Declaration

I declare that this thesis prepared for the partial fulfillment of the requirements for the degree of Masters of Science in Housing and Sustainable Development entitled “Malpractices in Government-Sponsored Housing Projects and their Impact on Affordability” is my original research work prepared independently by my effort with the close advice and guidance of my advisors. I also declare that this thesis has not been presented in any university and all sources I have used or quoted have been indicated and acknowledged through complete references.

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Confirmation

The research completed by Mihretu Daniel Mekuria on the topic entitled “Malpractices in Government-Sponsored Housing Projects and their Impact on Affordability” was conducted under our supervision and it is approved for defence.

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Abstract

Despite government efforts, condominium housing prices in Addis Ababa remain out of reach for a significant portion of the population. Concerns are mounting that malpractices are exacerbating this affordability problem. To investigate this, the study examines the prevalence of malpractices in government-sponsored housing projects and how they impact housing affordability, focusing on the Bole Arabsa and Koye Feche project sites. By employing a case study-mixed methods design, the researcher utilized primary and secondary data sources. A stratified random sampling technique ensured a representative sample of 251 respondents. To gather and generate both qualitative and quantitative data, in-depth interviews, surveys, focus group discussions, observations, and document reviews were employed. The collected data was analyzed using descriptive, thematic, and ratio analysis techniques before being presented in tables, charts, diagrams, and narrative text formats. The study findings revealed the participation of unskilled and inexperienced stakeholders throughout the process, the use of substandard materials, delayed deliveries of materials, and late payments. Consequently, construction was extended, quality suffered, and prices rose. Ratio analysis confirmed these issues, with an average Schedule Performance Index (SPI) of 0.27 and a Cost Performance Index (CPI) of 0.47, indicating significant delays and cost overruns. In conclusion, this study reveals how pervasive malpractices during housing production disproportionately impact low-income groups seeking affordable housing by creating a significant barrier, leading to inflated costs and hindering their ability to secure safe and stable living. Finally, to ensure the delivery of affordable housing and eliminate the root causes of project delays, quality issues, price hikes, and affordability concerns, this research recommends a multi-pronged approach such as merit-based stakeholder selection, enhanced quality control measures, improved supply chain management, streamlined payment processes, and fostering stakeholder commitment.

Keywords: *Malpractices in housing construction, Government-sponsored Housing, housing Affordability, Addis Ababa*

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The cooperation I obtained from the officials and experts of the Addis Ababa Housing Corporation, particularly from the project offices at Arabsa and Koye Feche was quite positive and helpful. I would, therefore, like to express my heartfelt gratitude to them and all my friends who supported me during the data collection. I also would like to thank respondents at both sites who kindly and generously participated in my in-depth interviews, focus group discussions, and questionnaires.

My gratitude also goes to my big brother Temesgen Daniel who always followed up on me and encouraged me during my study, Fitsum Abraham, the hospitable and kind person who made me do my work properly whenever I was at his home, and all my family particularly Gashe, Itye, Abu, Ita and Asmie for their comforting prayers and special support. Last but not least my special and heartfelt thanks go to my dear wife, Marishet Abriham, who was my shield throughout the years of this study, and to my son Basliel, who makes me smile in all the unpleasant and difficult times.

Mihretu Daniel Mekuria
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Addis Ababa, Ethiopia

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Acronyms

AACA: Addis Ababa City Administration

AAHAB: Addis Ababa housing administration bureau

AAHCPO: Addis Ababa Housing Construction Project Office

AAHDB: Addis Ababa Housing Development Bureau

AAHDC: Addis Ababa Housing Development Corporation

CPI: Corruption Perception Index

EHC: Ethiopian Housing Corporation

ETB: Ethiopian Birr

FDRE: Federal Democratic Republic of Ethiopia

FEACC: Federal Ethics and Anti-Corruption Commission

IHDP: Integrated Housing Development Program

METEC: Metals and Engineering Corporation

MoUDC: Ministry of Urban Development and Construction

MSE: Micro and small-scale enterprises

NISS: National Intelligence and Security Service

SPI: Schedule Performance Index

TI: Transparency International

USD: United States Dollar

Local Terms

Birr: A paper money, silver coin, and monetary unit of Ethiopia, equal to 100 cents: replaced the Ethiopian dollar in 1976

METEC: Metals and Engineering Corporation is an Ethiopian arms and machinery industry founded in 2010. A giant factory making both weapons for the state's military and everyday items for civilians.

General Notes

The thesis format used for this specific research study was prepared by the office of the Graduate Programs Director, EiABC, AAU in August 2021.

All dates used throughout the research study are in the Gregorian calendar unless it is specified.

The citation and referencing style used in this research study is the Chicago author-date referencing style.

Unless it is noted, all tables, pictures, maps, and figures that exist in this research are generated by the author of the research study.

1 US Dollar to Ethiopian Birr average exchange rate for 2017 is 23.9673 ETB.

The researcher received a letter that enabled him to carry out the research and approach the informants. In this research study, the author has prepared a survey protocol before proceeding to the data collection process. All participants in this study were briefed about the objectives of the research and their willingness and consent were asked before interviews were conducted. Moreover, any recording material or collecting information is conducted only with their full consent and interest.

Further, to avoid any repercussions on respondents, collective names such as “one of the higher officials “, “some informants” or “some respondents” are used in the whole process. Careful attention was given to respecting the rights, needs, and values of the study subjects, maintaining the confidentiality of the data, and acknowledging sources of information.

Chapter One: Introduction

1.1 Background of the Study

Housing affordability is critical in many cities worldwide, including Addis Ababa. Government-sponsored housing projects are intended to be a good solution to the growing challenge of housing affordability. However, these programs are often plagued by malpractices that directly undermine their ability to achieve this goal (Mitra and Sanyal 2014, 77) . This research investigates the prevalence of malpractices and how they impact housing affordability in government-sponsored housing projects. Affordability is an overarching theme based on the advisor's interest and one of the reasons why I wanted to choose malpractices in government-sponsored housing projects and their impact on housing affordability title under this overarching theme is recent news and reports highlighting the link between malpractices and affordability issues in the government-sponsored housing. This exposure to the wider conversation has inspired me to delve deeper into this topic. Observing in my work environment that malpractices increase costs and reduce access to essential goods and services, making them unaffordable for ordinary people also has sparked my interest in exploring the issue further.

Different studies across diverse contexts have demonstrated malpractices and their detrimental effects on housing affordability. Construction fraud is one of the malpractices that can shrink the supply of affordable options as described by the World Bank (2013). Inflated costs, use of substandard materials, and collusion between contractors and officials divert funds intended for affordable housing construction. Beneficiary manipulation is another malpractice that can reduce the pool of truly affordable units available to those who qualify as stated by Transparency International (2023). Individuals who do not qualify gain access to housing units through bribery or manipulating selection processes. As discussed by Chatterjee B. and Deb Roy D. (2020), poor project management is another malpractice that can contribute to higher project costs and longer wait times. This discourages potential beneficiaries due to uncertainty and leads to a situation where market rents continue to rise while affordable units remain unavailable

The research conducted by Alemneh and Tsegaye (2017, 1470) indicates compromising housing quality, inflated housing costs, and accessibility as some of the impacts of malpractice on housing affordability.

Although existing studies provide important insights, this area remains under investigation for the following reasons. First, the specific mechanisms and consequences of malpractices can vary depending on the context of a particular region and research area. Second, the long-term consequences of malpractices on housing affordability require further exploration. Therefore, this research aims to analyze the impacts of malpractices in government-sponsored housing projects on housing affordability.

1.2 Statement of the Problem

Government-sponsored housing initiatives are crucial for improving affordability, especially for low- and middle-income residents in Addis Ababa. The city has witnessed a rapid rise in condominium housing development as part of a government initiative to address the city's housing shortage (Hailu 2016, 180). However, despite these efforts, affordability remains a major hurdle, particularly for low- and middle-income residents (Muluye 2016, 47). As stated by Mekonnen (2007, 65), condominium housing prices in Addis Ababa remain out of reach for a significant portion of the population despite government efforts. Furthermore, concerns linger about potential malpractices within these projects, threatening their effectiveness. This study focuses on two specific case sites in the city: Bole Arabsa and Koye Feche.

Malpractices within government-sponsored housing projects can exacerbate this issue by increasing the overall construction cost, leading to subpar construction quality and construction delays. This study aims firstly to investigate potential malpractices in the stakeholder selection process, the quality of construction materials, and material delivery and payments. Secondly, to analyze how these malpractices translate to higher costs for residents. Finally, to examine the role of stakeholders in upholding transparency and accountability to achieve the goal of government-sponsored housing projects.

By understanding the nature and impact of malpractices, solutions can be developed to ensure government-sponsored housing projects achieve their intended goal of increasing housing affordability for the target group of the city.

1.3 Objectives of the Study

The relationship between the objective and research question of this research entitled Malpractices in Government-sponsored Housing Projects and their Impact on Affordability is

intricately linked, forming the backbone of the investigation. The general objective describes the overarching goal of the research, analyzing the prevalence of malpractices and how they impact housing affordability. The central research question this research seeks to answer is how prevalent malpractices are in government-sponsored housing projects and how they affect housing affordability.

1.3.1 General Objective

The main objective of this study is to investigate the prevalence of malpractices in government-sponsored housing projects and how they impact housing affordability.

1.3.2 Specific Objectives

1. To identify the types of malpractices within government-sponsored housing projects in the cases of Bole Arabsa and Koye Feche project sites.
2. To examine the frequency of the malpractices in government-sponsored housing projects in the cases of Bole Arabsa and Koye Feche project sites.
3. To investigate the impact of malpractices in government-sponsored housing projects on affordability in the cases of the Bole Arabsa and Koye Feche project sites.
4. To examine the commitment of stakeholders in government-sponsored housing projects in the cases of the Bole Arabsa and Koye Feche project sites.
5. To develop recommendations for mitigating malpractices within government-sponsored housing projects in the cases of Bole Arabsa and Koye Feche project sites.

1.4 Research Questions

1.4.1 Main Research Question

How prevalent are malpractices within government-sponsored housing projects, and how do they impact housing affordability?

1.4.2 Specific Research Questions

1. What types of malpractices are present in government-sponsored housing projects in the cases of Bole Arabsa and Koye Feche project sites?
2. How frequently do the malpractices occur in government-sponsored housing projects in the cases of Bole Arabsa and Koye Feche project sites?

3. How do the malpractices affect housing affordability for the low-income groups in the cases of Bole Arabsa and Koye Feche project sites?
4. To what extent are stakeholders committed to the success of government-sponsored housing projects in the cases of the Bole Arabsa and Koye Feche project sites?
5. What recommendations can be formulated to address the identified malpractices within government-sponsored housing projects in the cases of the Bole Arabsa and Koye Feche project sites, to improve affordability?

The following diagram shows how to translate the research objective into the research process and questions.

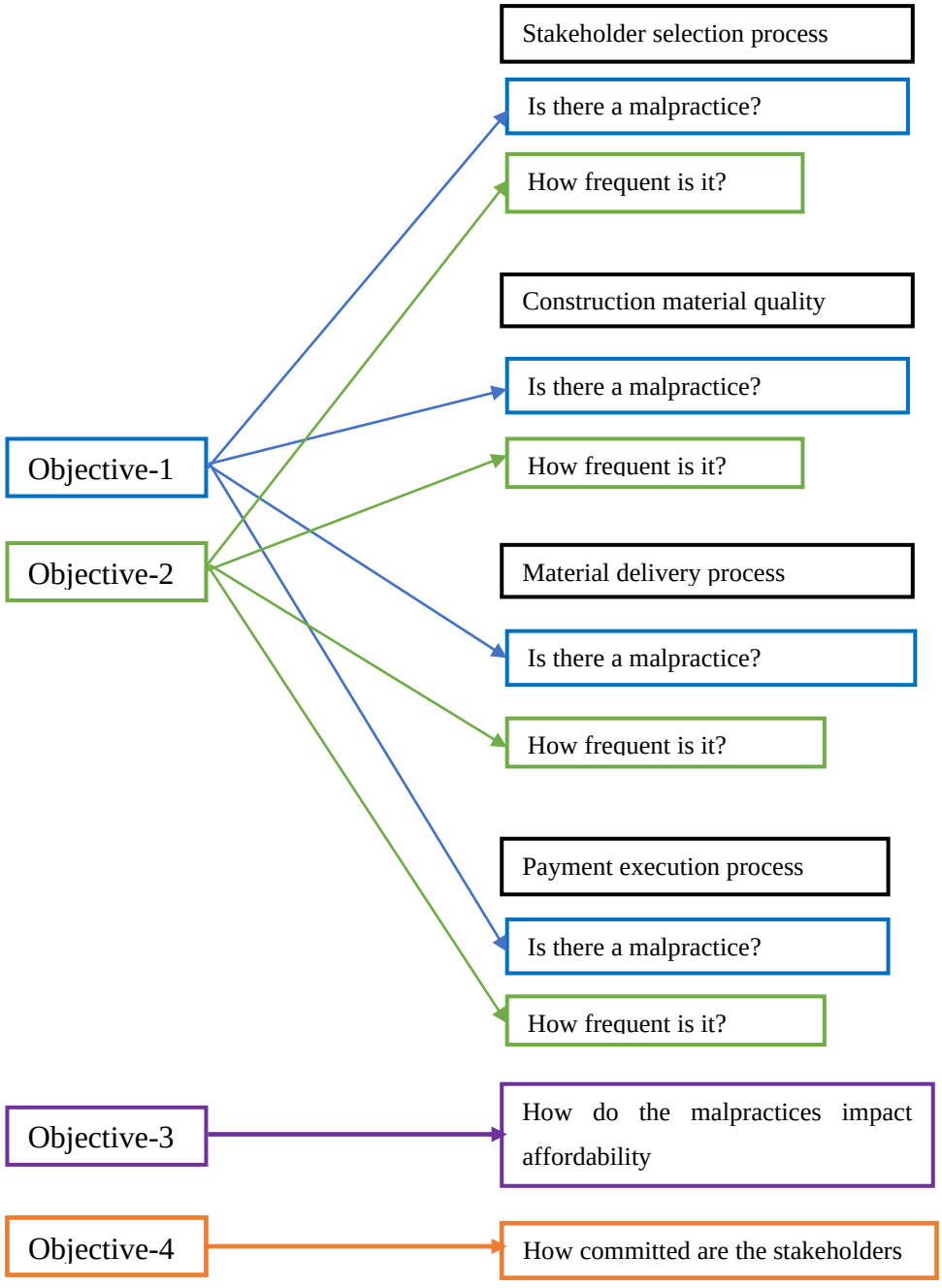

Figure 1-1: Framework to translate research objectives to research process

1.5 Scope of the Study

1.5.1 Spatial Scope

This study is delimited geographically in Addis Ababa, Ethiopia, more specifically on the Bole Arabsa and Koye Feche project sites. The selected housing projects were built under the IHDP 20/80 housing program. Although the two projects were not completed fully until October 2023 (this data collection period), some of the beneficiaries who responded about their income and housing cost at the Koye-Feche project site have already started living there.

1.5.2 Thematic Scope

This research study examines the prevalence of malpractices in government-sponsored housing projects and how they impact housing affordability. The housing production part of government-sponsored housing is the focus area of this study from the whole process. Under this selected area of study, the practice of malpractices in the stakeholder selection process, quality of construction materials, delivery time of materials, and payment execution process and their impact on affordability are the emphasized aspects.

1.5.3 Temporal Scopes

This study focuses on the largest government-sponsored condominium housing built under the IHDP 20/80 housing program for low-income groups from 2014 to 2023. In this range of time, the Bole Arabsa condominium housing project started in 2015 and the Koye Feche condominium housing project started in 2014 were selected because of their performance and the occurrence of the trend of malpractices as indicated in prior research studies.

1.6 Significance of the Study

This study is highly significant because housing affordability is a critical issue. Affordable housing directly impacts individuals' health, well-being, and social mobility. The malpractices that drive up housing costs can have devastating consequences for individuals and families. The second reason why this study is significant is malpractice is a widespread problem. Malpractice exists in various degrees across the globe, affecting housing markets in many countries. Studying its impact allows for tailored solutions and a better understanding of the issue's scope. The primary beneficiaries of this study are the city's inhabitants who

suffer because of a lack of affordable housing due to malpractices. Besides, the result of this study can be used as input to housing policies and strategies in government-sponsored housing production. Moreover, it contributes to the literature by giving information to enable researchers to modify and redirect research to develop new insights into the problem.

1.7 Research Limitations

Sometimes beyond the researcher's capacity, there may be challenges that would affect the research. The first and the most common limitation of this study was the data challenge. Malpractice is often hidden and complex, making it challenging to measure its precise extent and impact accurately. Depending on the context, obtaining reliable data on malpractices and their impacts on housing affordability was difficult due to limited access. The other limitation was the difficulty of separating the impact of the studied malpractices from other factors influencing housing affordability, such as economic trends or policy decisions and so on. Despite these limitations, the study on the impact of the malpractices on housing affordability remains crucial to contribute valuable insights that inform future research endeavors.

1.8 Description of the Study Area

The first case study site is the Koye-Feche condominium housing project site which is located in the South-Eastern Part of Addis Ababa city in the Sheger city Administration commonly called 'Koye-Feche' roughly 7 kilometers away from Akaki town in the eastern direction. In terms of astronomical location, the site extends from 8053'00" N to 8054'30" N latitude, and 38048'45" E to 38050'15" E longitude. The total planning area of the project is estimated to be 1019 hectares. The second case study site is the Bole Arabsa condominium site and it is located in Lemi Kora sub city, Addis Ababa which is located in the Northeast of the city. The study area has included completed and ongoing Integrated Housing projects. Lemi Kora sub-city is the 11th sub-city situated in the peri-urban area where there is an extensive development of condominium housing.

1.9 Organization of the Document

This research thesis comprises five chapters. The first chapter deals with the background, statement of the problem, objectives of the study, Scope of the study, significance of the study, and limitations of the study. The second Chapter addressed the theoretical, empirical,

and contextual literature review on the impact of malpractices on affordability briefly. In this chapter, the summary of the literature reviews and conceptual framework have been covered.

The third chapter discussed the research methodology utilized in this study. The research methodology part covers the research design, target population, and sampling techniques. It also presents the methods and techniques used to collect, present, and analyze the data after collecting from the fieldwork.

In the fourth chapter, the results and discussion have been presented. The collected data is analyzed based on the methods and techniques identified. The findings of the analyzed data are displayed using tables, graphs, and narrations. In this chapter, the researcher attempted to discuss the findings of documents collected from different sources after summarizing the key findings. During the discussion of the research findings, prior research, interview results from key informants, original documents, focus group discussions, and some other relevant data were used as pieces of evidence.

In the fifth and final chapter, the conclusion and recommendations are presented well. In the conclusion section, the author recalled the main points that should be noted by the readers. The researcher also has given recommendations for relevant government bodies and all the concerned stakeholders/actors in this specific study.

Chapter 1 comprehensively explored the introductory part of this research study. Building upon this foundation, Chapter 2 delves into the existing literature on malpractices and housing affordability. This review examines how previous studies have documented the ways malpractices can inflate costs, compromise quality, and limit access to affordable housing.

Chapter Two: Literature Review

Introduction

In this chapter, the review of the existing scholarly literature related to the research topic is analyzed critically and comprehensively as discussed by Gay, Mills and Airasian (2012, 113). In general, this chapter comprises a review of related literature on malpractices and their impact on housing affordability. All the pieces of literature in this chapter are obtained from books, journals, publications of the government, and some documents from reliable sources. This review incorporates briefing the overview of malpractices and causes of malpractices in the first section, the review of the affordability of housing in the second section, and the review of stakeholder commitment in achieving housing affordability in the third section. Additionally, theoretical framework and empirical evidence about the impact of malpractices on housing affordability also are reviewed thoroughly. Finally, a contextual review of different documents, a summary of the literature review, and a conceptual framework are presented at the end of this chapter.

2.1 Overview of Malpractices

2.1.1 Definition of Malpractice

Legal Definition:

Black's Law Dictionary (2009): Defines malpractice as "a dereliction of professional duty or a failure to exercise an ordinary degree of professional skill or learning by one (such as a physician) rendering professional services which result in injury, loss, or damage" This definition emphasizes the professional context and the resulting harm caused by negligence.

General Definition:

Merriam-Webster Dictionary: Defines malpractice as "an injurious, negligent, or improper practice: malfeasance". This definition is broader and can apply to any field, not just professions. It highlights the improper or negligent nature of the practice.

Business Definition:

Foundershield (2023): Defines malpractice as "a professional's failure to exercise the level of skill and care that a reasonable professional in a similar situation would use". This definition focuses on the professional context but emphasizes the lack of expected skill and care compared to peers.

Malpractice in Construction

Malpractice in construction is professional negligence by someone involved in the building process, leading to damages. This occurs when a professional fails to uphold their duty of care, which is the legal obligation to perform services with a reasonable standard according to industry practices and regulations (American Bar Association 2020)

2.1.2 Causes of Malpractices

A complex web of factors contributes to the prevalence of malpractices in government-sponsored housing projects worldwide. One key issue is a lack of transparency and accountability. Opaque application processes and a shroud of secrecy surrounding decision-making create openings for manipulation and favoritism. Furthermore, weak oversight by government agencies allows potential fraud and mismanagement to flourish undetected (Turner 2018).

Insufficient funding also plays a significant role. Chronic budget shortfalls force programs to make difficult choices, often resorting to cost-cutting measures that compromise quality (Morrow 2021). Even with existing resources, misallocation due to mismanagement can leave projects under-resourced and vulnerable to cutting corners (Popkin, Sokolowski and Hutson 2021).

Weak legal frameworks and enforcement further exacerbate the problem. Loopholes and lax penalties create an environment where malpractices are considered low-risk ventures. Corruption within the very agencies responsible for enforcement adds another layer of difficulty, hindering effective oversight (Chen, Kung and Liu 2023).

Political interference also undermines the integrity of these programs. Political pressure to deliver projects quickly or favor specific groups can lead to bypassing critical procedures and

quality standards (Bratt, Zhao and Zhou 2017). Additionally, some politicians may exploit these programs for personal gain, allocating resources based on patronage networks rather than genuine needs (Missy and Andrews 2018).

Finally, a lack of community involvement weakens the system. Disengaged communities with limited power to hold authorities accountable create fertile ground for malpractices. Poor communication between government agencies and the communities they serve can further create misunderstandings and opportunities for exploitation (Imbroscio 2020). Addressing these root causes is crucial for building a more transparent, accountable, and well-resourced system for delivering affordable housing.

2.2 Overview of Housing Affordability

2.2.1 Definition of Affordability

There are several ways to define housing affordability, each emphasizing different aspects of the burden of housing costs. Here are three common approaches:

Income-Based Affordability: This definition focuses on the relationship between housing costs and household income. A commonly used metric is the housing cost-to-income ratio, which suggests that housing is affordable if it consumes no more than a certain percentage (often 30%) of a household's gross income (Schuetz 1972, 115).

Residual Approach: This definition considers housing affordable if enough income remains after paying housing costs to meet other basic needs. This approach takes into account variations in essential expenses across households (Malathy 2003, 721).

Sustainable Affordability: This definition goes beyond just meeting basic needs. It considers housing affordable if it allows households to maintain a decent standard of living while also saving for the future and participating in social activities (Rohe and Farley 2014, 23).

Housing affordability refers to the ability of households to secure and maintain adequate housing without excessive strain on their financial resources (Mitra and Sanyal 2014, 75). It is a complex concept influenced by various factors such as housing cost, household income, and other living expenses. In connection to housing affordability, the ability to pay is highly connected with income or people can spend on housing and the willingness to pay is connected with choice or people want to spend on housing. The economic character of the

community determines the ability to pay and the social character of the community's willingness to pay.

2.2.2 Measuring Affordability

According to Gan and Hill (2009, 116), income affordability simply measures the ratio of house prices to income. The ratio approach determines the percentage of the income that should go toward housing costs relative to non-housing expenditures. The 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. There are various ways to measure housing affordability, with two common metrics. The first one is the housing cost-to-income ratio (HCIR). This compares the cost of housing (rent or mortgage payment) to a household's gross income. A commonly used benchmark suggests housing costs should be <30% of gross income to be considered affordable (Mitra and Sanyal 2014, 76). The second one is the residual income approach. This method takes into account other essential living expenses besides housing. It compares housing costs to the remaining income after accounting for these expenses.

According to UN-Habitat (2017, 51), the data gathered from the survey shows that, out of the 992 condominium owners who participated, 48.7% spent less than 25% of their income on housing. On the other hand, 41.3% of the respondents spend more than 30% of their income on mortgages. As a result, the latter are burdened and severely stressed to keep up with their monthly payments.

Table 2-1: Housing affordability measured by share of housing costs in household income

Affordability	Share of housing costs (mortgage payments) in household income					
	<25% Excellent	25 – 30% Very good	30-35% Good	35 -40% Fair	40 – 45% Burdened	>45% Severe
% of households	48.70%	9.90%	8.10%	5.80%	4.60%	22.80%

(*Source: Reprinted from UN-HABITAT, The State of Addis Ababa 2017: The Addis Ababa We Want* (2017, 52), *Table 26*)

Table 2-2: Condominium housing unit monthly mortgage payments

Round	Year	Monthly mortgage payment (ETB)			
		Studio	1-Bedroom	2-Bedroom	3-Bedroom
Rounds 1 –3	1998 -2000	665	665	950	1,140
Round 4	2001	1,100	1,414	1,728	1,807
Round 5 - 6	2002-2003	1,450	1,865	2,280	2,385
Round 7	2004	1,480	1,931	2,523	2,633
Round 8 -9 other sites	2005	1,869	2,491	3,426	3,581
Round 7 (Lideta site)	2004	1,982	2,642	3,633	3,798
Round 8 - 11(Lideta)	2005 -2008	2,036	2,714	2,732	3,902

(*Source: Reprinted from UN-HABITAT, The State of Addis Ababa 2017: The Addis Ababa We Want* (2017, 52), *Table 27*)

It must also be pointed out that, due to low income, 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 think the condominium housing schemes are unaffordable. Affordable housing is crucial for individual and societal well-being. It fosters stability, health, and economic growth.

2.3 **Stakeholder Commitment in Achieving Housing Affordability**

Achieving housing affordability is a complex challenge requiring collaboration from various stakeholders. Here's some relevant literature exploring stakeholder commitment in this area:

This research examines the role of partnerships in integrating the corporate social responsibility (CSR) of stakeholders involved in affordable housing projects. Berrone, Pretorius and Roodt (2018) argue that governments alone cannot solve the housing affordability crisis. Their study, using a South African perspective, highlights the importance of collaboration between government authorities, construction firms, and other stakeholders. They propose a five-domain CSR partnership model as a framework for achieving greater housing affordability through collective action.

Davoudi (2013) emphasizes the importance of stakeholder engagement in sustainable housing governance. The author explores how different stakeholders, including residents, developers, policymakers, and community organizations, can contribute to achieving sustainable and

affordable housing solutions. The study highlights the need for effective communication, collaboration, and mechanisms for conflict resolution to ensure all stakeholders are heard and their interests are considered.

Brenner and Theodore (2002) advocate for a stakeholder approach to governing equitable housing outcomes. They argue that traditional top-down planning approaches often fail to consider the diverse needs and interests of stakeholders. The study proposes a framework for stakeholder engagement that emphasizes participation, power-sharing, and accountability.

2.4 **Theoretical Literature Review: Malpractices and Affordability**

Housing affordability, the ability of households to secure decent housing without undue financial strain, is a fundamental indicator of society's well-being. Unfortunately, its attainment is often challenged by various malpractices. This review delves into the theoretical frameworks underpinning the understanding of malpractices's detrimental impact on housing affordability. This section briefly discusses malpractices and their impact on affordability based on Principal-Agent Theory and Rational Choice Theory.

The Principal-Agent Theory and the Rational Choice Theory

The Principal-Agent Theory, as stated by Ross in (1973), sheds light on malpractices in housing construction and their impact on affordability. This theory examines the relationship between a principal (government) and its agents (contractors or officials). When their goals diverge, problems arise. In housing projects, this can manifest as information asymmetry. Contractors may withhold true cost information due to their expertise (Popkin, Sokolowski and Hutson 2021). This leads to budget overruns and fewer affordable units being built. Additionally, government guarantees or subsidies can create moral hazard, incentivizing contractors to cut corners or use lower-quality materials for higher profits (Morrow 2021). This reduces the lifespan of housing units and increases future maintenance costs, ultimately impacting affordability.

Similarly, the Rational Choice Theory helps explain malpractices. This theory suggests individuals make calculated decisions based on perceived costs and benefits. In housing construction, contractors or officials facing budget constraints might choose cheaper, substandard materials or construction methods to increase profits. This reduces the quality

and lifespan of housing units, impacting long-term affordability. Corruption or embezzlement, where individuals divert resources for personal gain, also falls under this theory (Turner 2018, Morrow 2021). This reduces the number of affordable units ultimately built.

Both the Principal-Agent Theory and the Rational Choice Theory highlight how malpractices aimed at reducing costs or increasing profits can have a domino effect on affordability. Fewer affordable units become available due to project delays or budget overruns (Kennedy and Arthur 2017, Missy and Andrews 2018). Even those who secure housing may face a financial burden due to frequent repairs necessitated by substandard materials (Popkin, Sokolowski and Hutson 2021) and potential health risks associated with poor living conditions.

2.5 Empirical Literature Review: Malpractices and Affordability

Government housing projects aim to provide affordable and safe living spaces for citizens. However, research across various countries exposes concerning malpractices that undermine these goals. One troubling area is construction fraud (Wu, Wang, J. and Zhao 2019). Here, substandard materials, inflated costs, and poor construction practices lead to housing with shorter lifespans and lower quality. This ultimately results in higher maintenance costs for residents (Popkin, Sokolowski and Hutson 2021). Another major issue is the misappropriation of funds (Turner 2018, Morrow 2021). Embezzlement or diverting funds earmarked for maintenance or new projects reduces resources available for improvements. This further strains the system and hinders its ability to meet the needs of residents.

Inefficient management also plays a significant role. Poor maintenance, bureaucratic hurdles, and mismanagement of waitlists create barriers for those seeking affordable housing. This not only limits access but also frustrates those in need. Perhaps the most egregious malpractice is nepotism and bribery in tenant selection (Chen, Kung and Liu 2023, Bratt, Zhao and Zhou 2017). Here, favoritism or demanding bribes excludes those who are most deserving of affordable housing. This not only undermines the program's purpose but also fosters a sense of unfairness. This study by Lee and Marcuse (2017) investigates the impact of regulatory capture on affordable housing production in the United States. Regulatory capture occurs when a regulatory agency becomes unduly influenced by the industry it is supposed to regulate. The study uses data from a large sample of metropolitan areas and finds a negative correlation between regulatory capture and the production of affordable housing. This

suggests that malpractices, like regulatory capture, can stifle efforts to increase the availability of affordable housing.

Glaeser, Gyourko and Kahn (2008) examine the relationship between land-use regulations and housing affordability in the United States. They use data on a large sample of regulated metropolitan areas and find that restrictive zoning practices can significantly increase housing costs. This implies that malpractices like excessive zoning restrictions can contribute to housing affordability problems. Sohn, Wadwha and Williams (2014) analyze the effect of land-use review processes on housing affordability in California. Their research suggests that lengthy and uncertain review processes can discourage developers from building new housing, ultimately leading to higher housing prices.

These malpractices create a domino effect that ultimately undermines the very goal of affordability in government housing projects.

Reduced Supply: Construction fraud, with its use of substandard materials and poor practices, can lead to shorter lifespans for housing units (Wu, Wang, J. and Zhao 2019). Additionally, the misappropriation of funds intended for new projects (Turner 2018, Morrow 2021) can stall development. This translates to fewer affordable units available, creating a situation where demand vastly outstrips supply. As a consequence, rents in the private market rise to meet this demand, pushing truly affordable options further out of reach for low-income residents (Kennedy and Arthur 2017, Missy and Andrews 2018).

Increased Costs: Even for those who manage to secure housing in these projects, the malpractices can lead to a significant financial burden. Substandard construction materials, as a result of construction fraud, often necessitate more frequent and expensive repairs (Popkin, Sokolowski and Hutson 2021). Furthermore, the poor living conditions associated with deteriorating housing, caused by both cut corners and neglected maintenance, can lead to increased healthcare costs for residents.

Erosion of Public Trust: Perhaps the most damaging consequence is the erosion of public trust. When these malpractices are exposed, it shakes public confidence in the effectiveness of government housing programs (Sullivan 2019, Imbroscio 2020). This discourages potential funding and participation, hindering their ability to deliver on the promise of affordable housing.

2.6 Contextual Review (Addis Ababa, Ethiopia)

Despite government efforts to increase the condominium housing supply in Addis Ababa, affordability remains a critical challenge for many residents. In this section, it has been discussed whether the existing policy, legal, and institutional frameworks are functioning as intended. Addis Ababa's housing market presents a complex picture, characterized by the dominance of condominiums and a significant affordability gap for low- and middle-income groups. Condominiums now constitute a large portion of Addis Ababa's housing stock, particularly in newly developed areas (Degnet 2014, 1461). However, their dominance hasn't necessarily translated to widespread affordability. Despite government efforts, condominium prices often remain beyond the reach of low- and middle-income residents. Studies indicate a significant affordability gap, with many residents spending a large portion of their income on housing (Getahun 2015, 197).

Unfortunately, the housing market struggles with pervasive malpractices, impacting affordability in several ways. The first one discussed in this section is land allocation. Bribery and favoritism skew land allocation towards specific groups, reducing land availability for affordable projects (Getahun 2015, 192). The second one is construction delays. Irregularities in permit issuance and corrupt practices lead to project delays and cost overruns, ultimately increasing unit prices. The third one is substandard materials. Malpractice in procurement can lead to the use of cheaper, lower-quality materials, compromising quality and increasing future repair costs. The fourth and final one discussed in this section is artificial scarcity. Collusion between developers and officials creates limited supply and drives up prices through market manipulation (Degnet 2014, 1458). These malpractices collectively contribute to higher construction costs, reduced project efficiency, and artificial scarcity, ultimately leading to decreased affordability for low- and middle-income residents.

The rapid housing development in Addis Ababa faces a significant challenge. A key contributor to this problem is the prevalence of malpractices within the construction sector, as identified by Tesfaye (2018). These malpractices not only compromise the safety and quality of buildings but also drive up costs, making housing increasingly out of reach for many residents. One concerning practice is the use of substandard materials. While these materials may seem cheaper initially, they often require frequent repairs and replacements. This

ultimately increases the lifetime cost of ownership for homeowners. Additionally, inflated prices due to collusion among construction companies and weak enforcement of building codes create a higher barrier to entry for potential buyers, pushing affordable housing further out of reach. Furthermore, poor construction practices and the use of substandard materials lead to buildings with a shorter lifespan. These structures deteriorate faster, requiring costly renovations or even premature demolition. This reduces the overall value of the housing stock, placing a burden on residents who struggle to afford these necessary repairs or replacements. The safety of construction workers and residents is also jeopardized by these malpractices. Neglecting safety standards during construction creates a hazardous environment for workers and increases the risk of accidents. Moreover, poorly constructed buildings are more susceptible to damage during earthquakes or other natural disasters, posing a significant threat to life and property. Finally, project delays and uncertainties caused by malpractices can deter potential investors. This discourages the development of affordable housing options, further limiting the supply of houses that residents can realistically afford.

Policy Frameworks: Ethiopia's housing sector faces challenges, including affordability, accessibility, and quality. Malpractices are often cited as a contributing factor, hindering progress toward achieving sustainable housing for all. Integrated Housing Development Programme (IHDP) aims to increase affordable housing supply through large-scale condominium development. However, its effectiveness has been questioned due to challenges like limited transparency, lack of community participation, and potential for corruption (UN-Habitat 2010, 43). The other policy discussed in this section is the urban land policy. The Urban Land Lease Policy (2005) of Ethiopia, officially known as Proclamation No. 456/2005 Urban Land Use and Administration Proclamation, is a significant piece of legislation governing urban land management in the country. Introduced in 2005, it replaced the previous Urban Land Lease Proclamation No. 91/1997, aiming to address challenges and improve urban land administration (FDRE 2015). This policy regulates land ownership and leasehold rights in urban areas. It aims to ensure transparency and fairness in land allocation, preventing corrupt practices that inflate housing costs. The policy also encourages mixed-use development and densification, creating more affordable housing options within city centers.

Legal Frameworks: Ethiopia is one of the member countries of the United Nations Convention against Corruption, signed in 2003 and ratified in 2007. As a regional body

according to UNODC (2022), the second-round review of preventive measures enactment of Ethiopia and asset recovery was scheduled for 2019 and appears to be continuing. As indicated in the African Union (2021), Ethiopia signed the African Union Convention on Preventing and Combating Corruption at the regional level in 2004 and ratified it in 2007. In addition, Ethiopia is a member of a regional body such as the Eastern and Southern Africa Anti-Money Laundering Group (ESAAMLG) and the East African Association of Anti-Corruption Authorities (EAAACA) charged with implementing the Recommendations. According to Shamalla (2018), the country is also a member of the Asset Recovery Inter-Agency Network for Eastern Africa, a regional platform established to pursue asset recovery.

The Ethiopian Constitution (1994), the cornerstone of Ethiopia's legal system, enshrines principles like good governance, transparency, and accountability, laying the foundation for anti-corruption efforts. Articles 50 and 51 specifically address the right to shelter and the state's obligation to create favorable conditions for citizens to access housing (FDRE 1995). The second legal framework discussed in this section is the Urban Land Use and Administration Proclamation (No. 456/2005). This proclamation governs land allocation and administration in Ethiopia. While aiming for transparency and fairness, challenges in implementation and loopholes create ambiguity and opportunities for manipulation, potentially leading to inflated land prices and hindering access to affordable land for housing projects (FDRE 2005). The third legal framework discussed in this section is Public Procurement and Property Administration Proclamation No. 649/2009. This proclamation regulates public procurement processes, including those related to construction materials and services for condominium development. Loopholes and weak enforcement mechanisms can contribute to inflated costs and subpar quality due to corrupt practices during procurement, ultimately impacting affordability through increased construction costs and future maintenance needs (FDRE 2009).

Institutional Frameworks: Combating corruption and ensuring housing affordability are multifaceted challenges requiring a combination of legal, institutional, and societal efforts. To this aspect, let's delve into key institutional actors and initiatives in Ethiopia.

TI Ethiopia: According to Rahman (2018), Transparency Ethiopia was established in 2002 as the local chapter of Transparency International. The organization is one of the very few NGOs working on issues related to the anti-corruption cause in the country. In 2016,

Transparency Ethiopia launched its Advocacy and Legal Aid Centre (ALAC) aiming to provide legal advice and support to victims and witnesses of corruption.

Ethiopian Housing Corporation (EHC): It is a state-owned enterprise playing a significant role in providing affordable housing, particularly for low- and middle-income families. Develops and manages housing projects, utilizing various approaches like rent-to-own schemes and subsidized housing units. Adherence to transparent procurement practices and robust internal controls are crucial to minimize corruption risks within the EHC's operations. While aiming to provide affordable housing, its management practices and access criteria might not effectively target low- and middle-income groups (Tsegaye, Tefera and Tsegaye 2017, 129).

Ministry of Urban Development and Construction (MoUDC): It is responsible for formulating and implementing national housing policies and strategies. Oversees various agencies involved in housing development, including the Ethiopian Housing Corporation (EHC) and the Ethiopian Real Estate Agency (ERA). Works to promote transparency and accountability in project implementation and land administration.

2.7 **Summary of Literature Review**

Aligning with this research on government-sponsored housing projects, the literature review exposes common pitfalls like construction fraud (substandard materials, inflated costs, poor construction leading to expensive repairs), misappropriation of funds (diverting money from maintenance and new projects), inefficient management (poor maintenance, bureaucracy, waitlist problems), and unfair tenant selection (nepotism and bribery). The Addis Ababa contextual study further illustrates these issues with real-world examples of bribery in land allocation, construction delays due to malpractices, use of substandard materials, and artificial scarcity created through collusion. The literature reviewed in this section did not discuss the frequency of the malpractices in specific areas. However, analyzing the frequency is relevant to prioritizing the problems to address. This study breaks new ground by examining the issue of the frequency of malpractices within the project sites.

Malpractices in government housing projects create a perfect storm for crushing affordability. Construction fraud and misused funds coupled with shoddy construction requiring constant repairs and neglected maintenance leading to poor living conditions, leave residents

financially strained. To top it off, public trust erodes when these problems come to light, making it harder to secure funding and participation in the programs, ultimately hindering the very goal of providing affordable housing.

Highlighting the importance of collaboration, the literature outlines the specific roles of government, private entities, and civil society in achieving affordability. However, it emphasizes that a lack of community involvement weakens accountability, creating a breeding ground for the very malpractices that undermine affordability goals.

In conclusion, this literature review provides a valuable foundation for this research. It identifies the types of malpractices to investigate and explains how they can undermine affordability.

2.8 **Conceptual Framework**

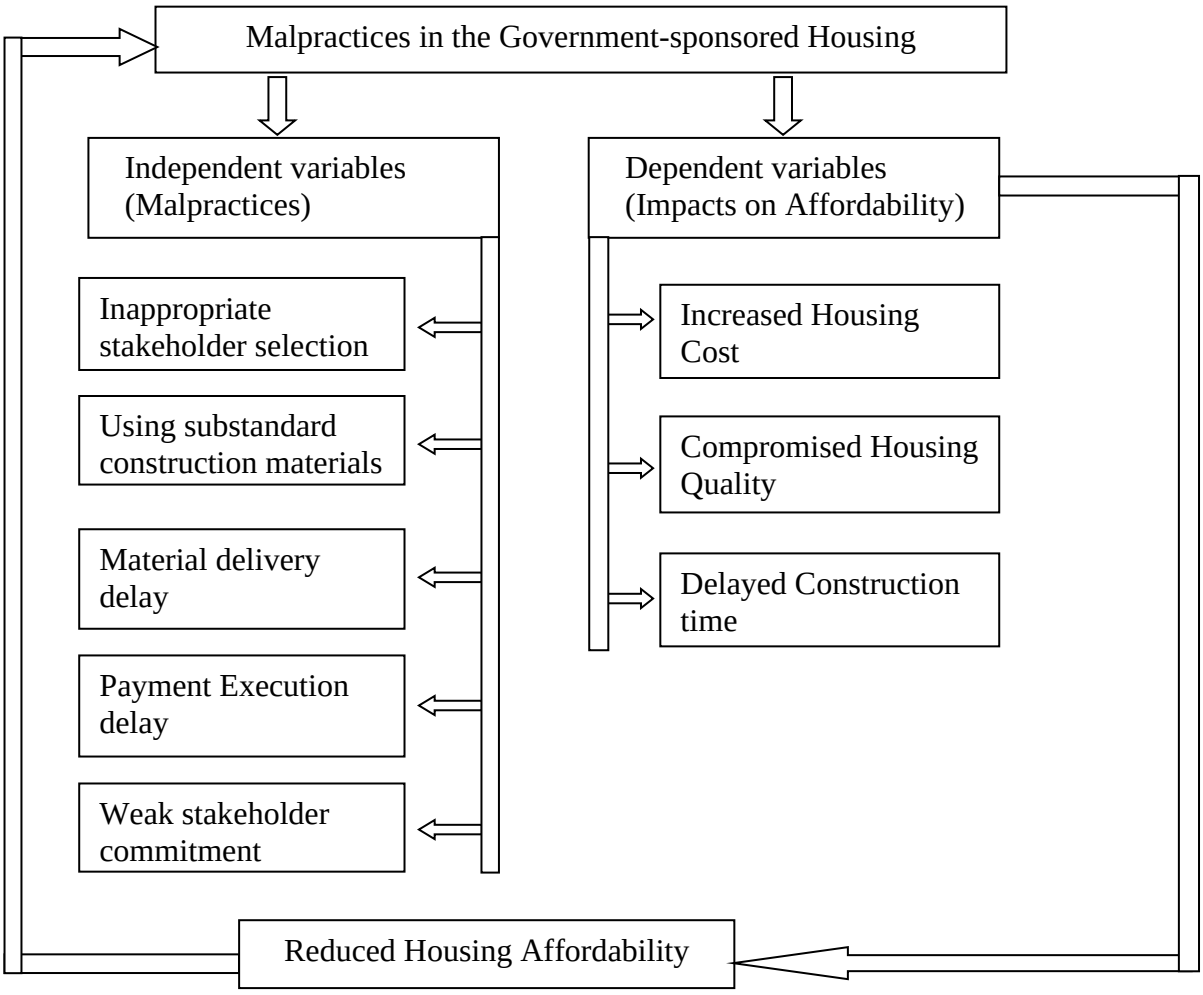

Figure 2-1- Conceptual diagram of the research study (Feedback loop)

The key concepts, variables, and their relationships in this study are outlined as stated by Punch (2018, 224). It acts as a lens through which readers understand and interpret the research question or hypothesis. The prevalence of malpractices is one of the key variables of this study. Data is collected through various methods, such as surveys, interviews, focus group discussions, or official reports on malpractice cases related to housing projects. Impacts on affordability (increased housing cost, compromised quality, and delays in housing projects) are the other variables of the study. This is assessed by collecting data on the current cost of housing and the originally planned cost to complete. Figure 2-1 shows the summarized conceptual framework of the study by linking the two variables of the whole study and indicating the expected outcome.

Chapter 2 widely reviewed existing literature on malpractices' impact on affordable housing. However, the following gaps remain regarding its influence on government-sponsored housing affordability in Addis Ababa. Firstly, existing literature discusses general types of malpractices like construction fraud and misappropriation of funds. However, to effectively address the issue, we need to understand the specific types of malpractices most prevalent in Addis Ababa's unique housing sector. Secondly, the reviewed literature mentions stakeholders like developers and NGOs. A crucial next step is to identify the key actors specific to Addis Ababa's context and their commitment. This includes understanding how they might contribute to or mitigate malpractices. Finally, while the literature mentions housing projects, it lacks detail on condominiums, which dominate Addis Ababa's housing market. To gain a more comprehensive picture, we need to investigate the specificities of this dominant housing type. To address these gaps, Chapter 3 details the research methodology utilizing a case study-mixed methods approach. This involved collecting data from the Bole Arabsa and Koye Feche projects, using in-depth interviews, surveys, focus group discussions, observation, and document review. Drawing on these insights, this research aims to deepen our understanding of malpractices' impact and provide valuable insights for policymakers working towards a more equitable housing market.

Chapter Three: Research Methodology

Introduction

In this chapter, the forms of data collection, analysis, and interpretation that the researcher used for his study are presented based on the definition of research methods by Creswell and J. David (2018, 335). The particular research technique or a way to gather evidence about the topic is shown clearly. To analyze malpractices in government-sponsored housing projects and their impacts on affordability, it is necessary to define the research design and method clearly. Thus, this chapter presents a detailed explanation of the research study area, designs and methods, data types and sources, sampling design, sampling techniques, sample population, sample size, method of data collection, method of data analysis, method of data presentation, and Validation and Reliability.

3.1 Study Area

Considered criteria to select the case study areas are the largest housing project under IHDP since 2014, prior findings on the case sites that support the selected topic for the study, the existence of red flags of corruption such as delay, quality problems, and extended project total cost. Having this in mind, Bole Arabsa and Koye Feche condominium project sites are selected. Koye Feche is located in the southeast of Addis Ababa, specifically located in the Sheger city administration (See Figure 3-2). The second case site, the Bole Arabsa condominium site, is located in the Lemi Kora sub-city, Addis Ababa which is located in the Northeast of the city. The study area has included completed and ongoing 20/80 Integrated Housing projects (See Figure 3-3).

3.2 Research Design

To answer the research question and collect data for this specific study, a case study-mixed methods design is encompassed. A case study-mixed methods design is a research approach that utilizes both qualitative and quantitative data collection methods to gain a comprehensive understanding of a single entity. The case study serves as the primary investigative lens, while the quantitative data plays a supporting role in enriching the case study findings. This research uses a case study because it allows for an in-depth exploration of a recent real-world issue, especially when the lines between the issue itself and its surrounding context are

blurry, as pointed out by Yin (2018, 16). In this research, mixed method or combined or integrated qualitative and quantitative data is used as defined by Creswell and J. David (2018, 62) offers a more comprehensive understanding of complex phenomena than either quantitative or qualitative approaches alone.

Research question: How does the prevalence of corruption in government-sponsored housing production affect housing affordability?

Justification for Case Study-Mixed Method: A case study allows for a focused examination of the roll-out process, stakeholder participation, and perceived problems within the production of government-sponsored housing. Qualitative data (interviews with key informants, consultants, contractors, MSEs, and project office workers) can uncover their attitudes towards the malpractices, how often they occur, and recommendations for improvement. In this research study, there are four categories of problems such as problems regarding the stakeholder selection process, construction material quality, delivery of the materials, and payment execution. Therefore, the first two research questions are asked frequently under each category of problems labeled below. See Figure 3-1

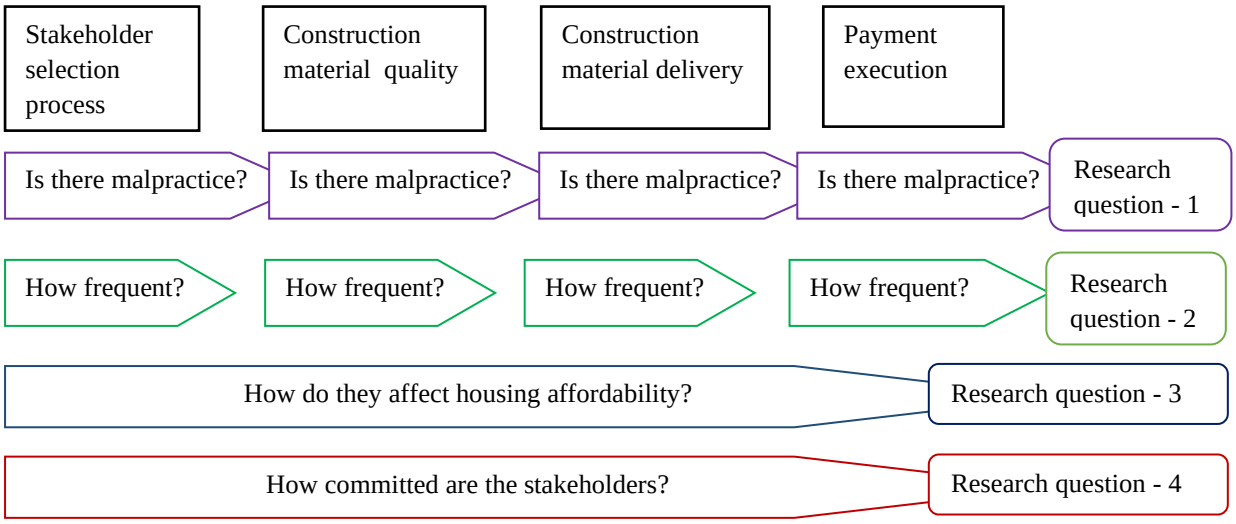

Figure 3-1: Research Methods for the Research Questions

Apart from surveying and interviewing to address the above research questions, observation, and documents are also used as a means. The fourth research question that asked about the commitment of the stakeholders to complete the projects within the given time, quality, and cost is also addressed through the focus group discussions, interviews, and surveys.

Quantitative data (archival data about the construction cost and schedule of the projects) has supported the qualitative data collected about how the prevalence of malpractices impacts housing affordability which is the third objective. Analyzing the cost performance and schedule performance index of the projects was incredibly helpful in strengthening the data collected qualitatively about how malpractices impact housing affordability.

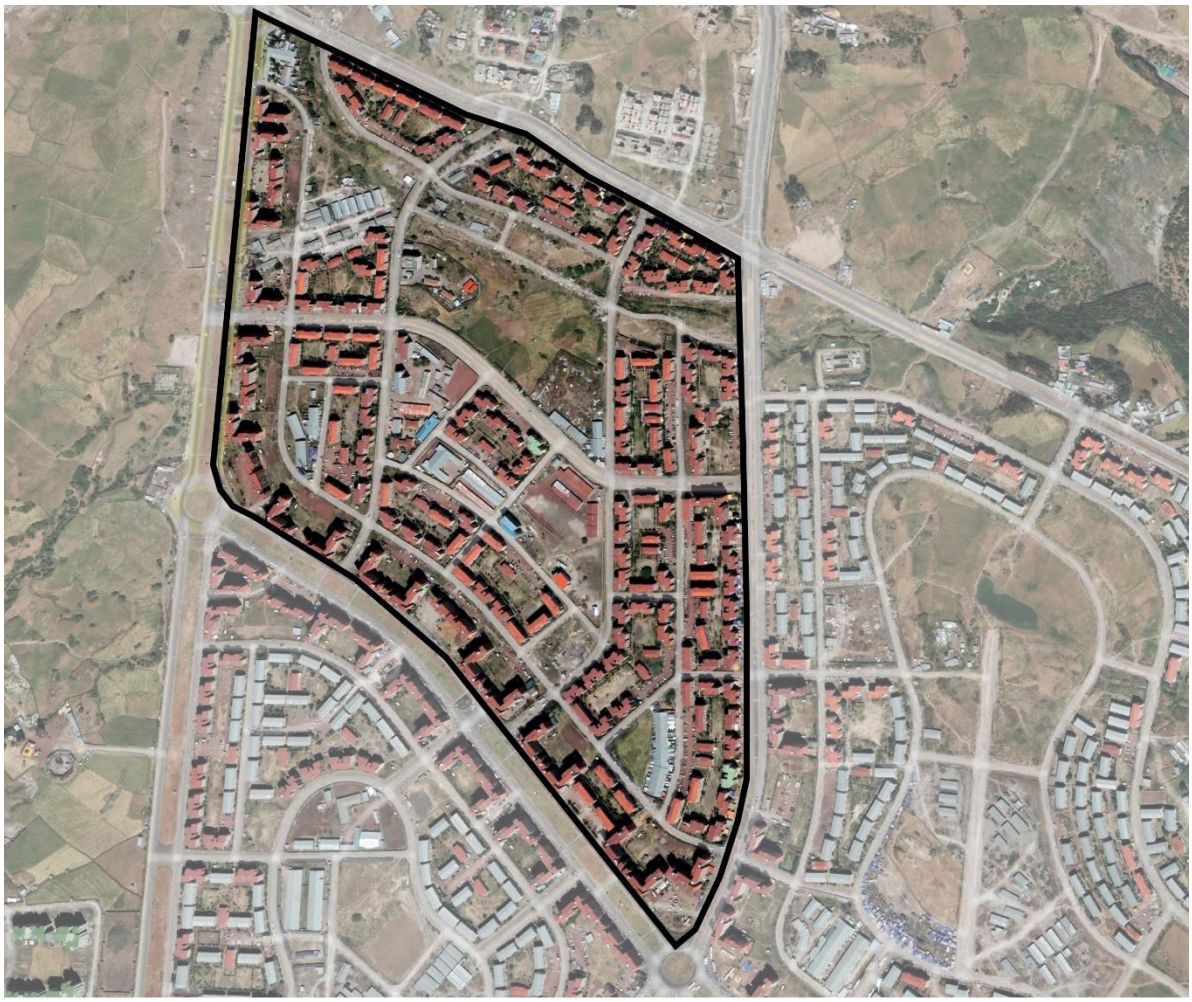

Figure 3-2: Bole Arabsa Location (Source: Google Earth (2022), Maxar Technologies)

3.3 **Data Types**

The types of data collected for this research study are qualitative and quantitative through surveys from case study sites, interviews with key informants, focus group discussions and different documents. The qualitative data is followed by quantitative data to refine understanding.

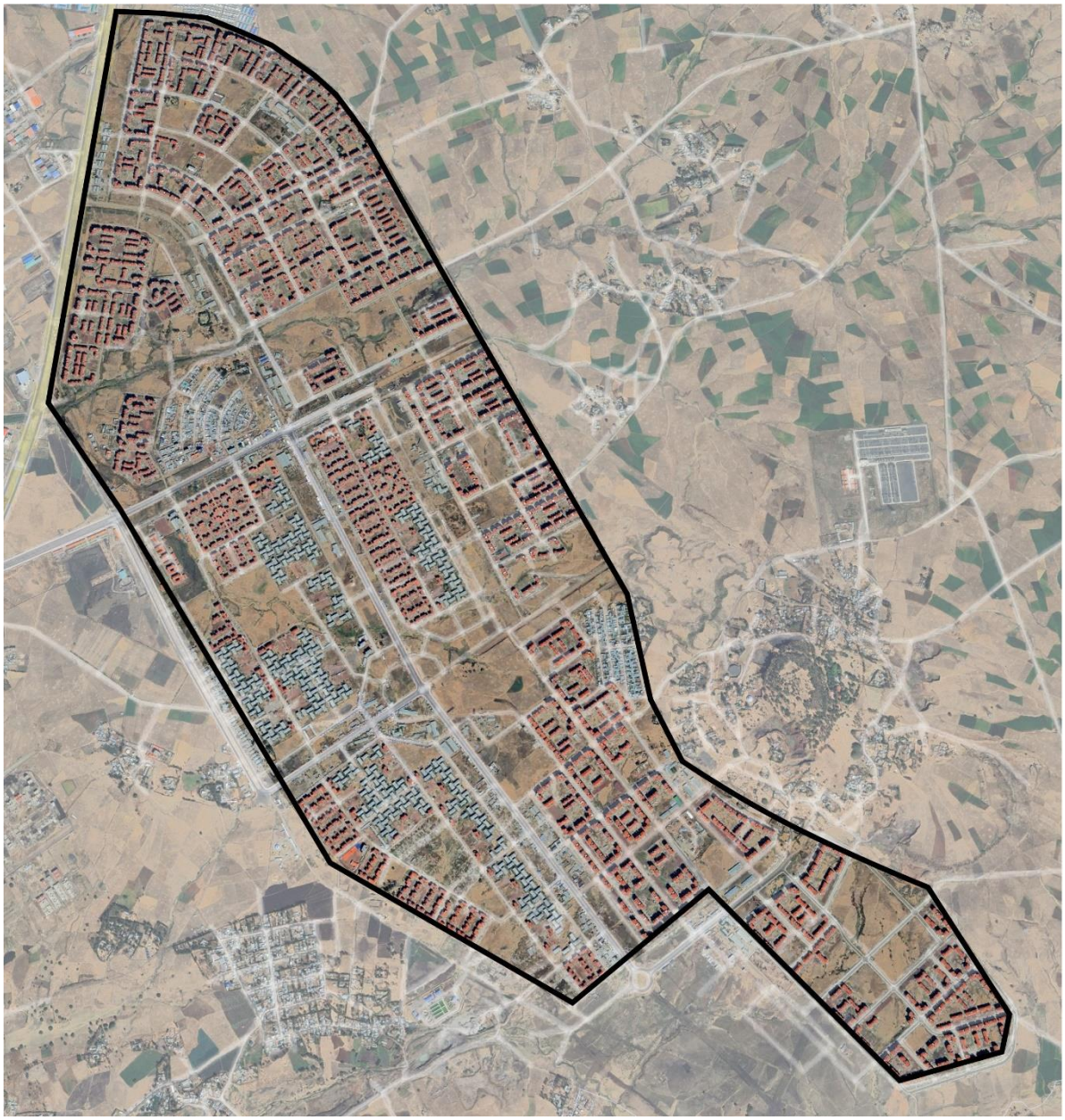

Figure 3-3: Koye Feche Location (Source: Google Earth (2023), Maxar Technologies)

3.4 **Sources of Data**

Primary sources are one of the data sources used in this research study because they are original works of research or raw data without interpretation or pronouncements that represent an official opinion or position according to Cooper and Pamela S. (2014, 96). Included among the primary sources are complete interviews and focus group discussions in written transcript formats and some government data. These sources are always the most authoritative because the information has not been filtered or interpreted by a second party. Secondary data in this research are collected from different existing sources such as current

reports on government-sponsored housing projects, printed documents, prior research related to this specific research study, and different books related to the research topic.

3.5 Sampling Design

3.5.1 Sampling Techniques

The sample that represents the entire population of this research study and the sampling method is selected because it is expected from a researcher to define both the target population and sampling method as discussed by Cooper and Pamela S. (2014, 510). The sample is drawn from the population of consultants, contractors, project office employees, and production MSEs at both Arabsa and Koye project sites. In this research, a stratified random sampling technique was applied to divide the population in the project sites into subgroups(strata) based on the category of work responsibility. After having the strata once, a subset of individuals from each stratum were randomly selected using simple random sampling. All individuals in the defined population had an equal and independent chance of selection for the sample and it is the best way to obtain a representative sample as indicated by Gay, Mills and Airasian (2012, 144). Combining stratified sampling and simple random sampling can be a powerful tool for obtaining a representative and accurate sample, for such a heterogeneous population. The sampling technique used in this research study, stratified random sampling, ensures a proportional representation of sub-groups within the population, reducing sampling bias as stated by Hair, Tatham and William C. (2019, 172).

3.5.2 Sample Population

The accessible or available population that the researcher has realistically selected from as discussed by Gay, Mills and Airasian (2012, 144) is presented in Table 3-1. To conduct the research based on the research design indicated above, identifying the population is a very important issue. Based on this, there is an identified institution involved directly in government-sponsored housing projects. This institution is a project execution institution known as the Housing Development Corporation. Under this institution, all grade contractors and consultants, HCB production MSEs and project offices workers who have engineering background and supervise the project sites are identified populations who participate in the selected case study sites. The following table summarizes the overall accessible or available population.

Table 3-1- Overall population of the target group summary

Site	No.	Name of projects		The stratum of the available population			
		Old name	New name	Contractors	Consultants	Project Office	Production MSE
Koye-2 Site	1	Project-8	Project-7	82	2	23	94
	2	Project-11		41	1		
	3	Project-16		43	1		
	4	Project-17		48	1		
	5	Project-18		42	1		
Arabs	6	Project-7	Project-5	45	2	20	88
	7	Project-12		47	2		
	8	Project-13		53	2		
Total				401	12	43	182
Total population				638			

(Source: Data from reports of Arabsa and Koye project sites)

The total number of the available populations for this research study is 638 according to Table 3-1. This available population number comprises the sum of consultants, contractors, project office employees, and production MSE at both project sites.

3.5.3 Sample Size

Sample Size Determination Technique

The sample size in this research study is selected from the available population to estimate the characteristics of the whole population as discussed by Krejcie and Morgan (1970, 608). After the type of the population is identified, the sample size is determined from each population. The sample size for this study is determined using the statistical formula put hereunder according to Cochran (1977, 69).

$$\text{Finite population: } n' = \frac{n}{1+\frac{z^2 \times \hat{p}(1-\hat{p})}{\varepsilon^2 N}} \qquad \mathbf{n'} = \frac{385}{1 + \frac{1.96^2 + 0.5(1-0.5)}{0.05^2 (626)}}$$

Where **Z** is the z score, **ε** is the margin of error, N is the population size, **p̂** is the population proportion with a confidence level of 95% and a margin of error of 5%, n is Cochran's sample size computed using the formula for ideal sample size. In this research study, all the categories can answer similar questions together. Among the population categories mentioned above, the category of consultants is taken as census because it is small in number to take a sample of it. The total number of consultants is 12 to take it as it is. Therefore, the number of populations to calculate a sample is 626 by deducting 12 from 638 total

population. According to the formula given above, the sample of 626 is 239. Therefore, to get the total sample the number of consultants should be taken as it is and it becomes 251 in total.

Table 3-2: Share of the population at each category for both sites

Category	Arabsa	Koye	Total
Consultants	6	6	12
Contractors	145	256	401
MSE	88	94	182
Project Office	20	23	43

Table 3-3: Sample number for each category according to their proportion

The category name	Population	Sample
Consultants	12	12
Contractors	401	153
Project Office	43	17
MSE	182	69

This sample is calculated based on the proportion of the total population. 401 is 64% of 626 and 64% of the sample 239 is 153.

Table 3-4: Sample population at each site according to their proportion

Category	Arabsa	Koye	Total	Arabsa	Koye
Contractors	36%	64%	153	55	98
Project Office	47%	53%	17	8	9
MSE	48%	52%	69	33	36

This sample is calculated based on the proportion of the total population. 145 is 36% of 401 and 36% of the sample 153 is 55.

3.6 **Method of Data Collection**

The gathering of data for this research study ranges from a simple observation at the site to a survey as has been said in the book of Cooper and Pamela S. (2014, 85). Open-ended and closed-ended questions were prepared both in English and Amharic to collect the required information and data through interviews and surveys. In this research study, in-depth interviews were used to gather rich qualitative data through open-ended questions and discussions as described by Rubin, Herbert J. and Rubin (2012, 98). To get the intended data, knowledgeable and experienced key informants for the specific matter were selected. To conduct the interview two contractors, and three interviewees from consultants, MSEs, and Project office workers have been selected at each site. Another method of data collection used in this research study is a focus group discussion. In this method, a carefully selected and diverse group of people led by the researcher discussed malpractices in government-

sponsored housing projects and their impact on affordability in an open and focused way according to Krueger and Casey (2009, 5). The discussion was held with two contractors, one MSE principal, and one project office worker at each site. The final method of data collection used for this research study is observation. While observing the case sites, the checklist was used to focus on the objective of the research. The researcher selected five additional surveyors for this research study and the questionnaires were filled out by them. Interview participants were drawn from those who filled in the questionnaire for the reason of triangulating the data and to collect reliable and firsthand information and it was done after the questionnaire.

3.7 **Method of Data Analysis**

In this research study, the accumulated data is reduced to a manageable size and summaries are developed by looking for patterns and using different techniques as described by Cooper and Pamela S. (2014, 86). The researcher used different methods of analysis techniques to achieve the stated objectives in the first chapter. Generally, the researcher used both qualitative and quantitative analytical techniques for analyzing the collected data. Microsoft Excel software was used for processing and analysis of data. The methods of data analysis used in this research were descriptive, ratio, and thematic analysis techniques to achieve the objectives of the study.

Descriptive Analysis Technique

The researcher used descriptive statistics to present basic summaries of a set of data, enabling the reader to quickly and easily describe the main features of the data as described by Field (2013, 23). The data in this research are organized, summarized, and simplified to give the reader a general overview of the distribution of categorical data (frequency tables), represent proportions of a whole (pie chart), and divide the data into 100 equal parts, indicating specific values that a certain percentage of the data falls below (percentiles).

Thematic Analysis Technique

The other analysis technique employed in this research is thematic analysis to identify, analyze, and report patterns within qualitative data as defined by Braun and Clarke (2006, 78). It is a versatile method that can be used with a variety of data types, including interviews, focus group discussions, and documents. Thematic analysis is a flexible and

widely used method for identifying, analyzing, and reporting patterns (themes) within data. It is a versatile method that can be used with a variety of data types, including interviews, focus groups, observations, and documents.

Steps involved in thematic analysis:

- ✓ Familiarization: This involves immersing in the data by reading and re-reading.
- ✓ Coding: This involves identifying and labeling key units of meaning (codes).
- ✓ Theme development: This involves grouping codes into themes that capture the key patterns in the data.
- ✓ Reviewing and refining: This involves checking that the themes are clear, coherent, and well-supported by the data.
- ✓ Reporting: This involves writing up the findings of the analysis clearly and concisely.

Ratio Analysis Technique

Ratio analysis is the other quantitative technique used for this research study in project performance measurement of both Koye and Arabsa project sites to assess a project's financial health, efficiency, and effectiveness by calculating and interpreting ratios derived from project cost, schedule, and resource data as described by Project Management Institute (2017, 282). Different ratios measure various aspects of project performance, such as cost, schedule, and resource utilization. Cost Performance Index (CPI) is one of the common examples and it compares the actual cost incurred to the budgeted cost of work performed. Schedule Performance Index (SPI) is the second one and it compares the earned value (EV) to the planned value (PV). Earned value (EV) and Planned value (PV) were used from annual reports of Project 17, 7 and 11. housing development constructions to know the efficiency of the schedule and cost. The SPI was calculated using ratios that allow judgment about the schedule and cost efficiency of the project.

Schedule performance index(SPI): is a tool used to measure time efficiency of schedule and expressed as a ratio of earned value to planned value. It was used to measure how efficiently the project team used its time (PMI 2013). Schedule performance index = Earned value / Planned value

Cost performance index(CPI): is a tool to measure cost efficiency of budgeted resources for the work completed and expressed as a ratio of earned value to actual cost (PMI 2013). Cost performance index = Earned value / Actual cost

3.8 Method of Data Presentation

The raw data in this research study was transformed into a comprehensible and visually appealing format for the readers. This research study tried to tell a story with the data, enabling viewers to grasp its meaning and significance. In this research study, data are presented in tables, charts, and diagrammatically. According to Chigbu (2019, 8), Statistical analysis isn't always required for the researcher to examine the validity of the hypothesis. This study has attempted to present a tested hypothesis in diagrams backed adequately with explanatory texts to provide a strong visual effect as a methodological tool as stated by Chigbu (2019, 11). In general, in this research, the qualitative data are presented first through layering. The main themes that emerged from the analysis are described thoroughly. This lays the groundwork for examining the phenomenon in more detail. The quantitative data is introduced as a layer on top of the qualitative foundation. Triangulation is used to show how the quantitative data confirms and clarifies the qualitative findings.

3.9 Validation and Reliability

The researcher assures that the research method is valid since a test measures what the researcher wishes to measure and reliability has been achieved in doing so with the accuracy and precision of a measurement procedure as discussed by Cooper and Pamela S. (2014, 257). The validity of this research is addressed by making the questions represent all the variables intended to measure for the desired objective of showing the impacts of the independent variables on the dependent variable. In ensuring reliability in this study, the consistency of measurement is assessed in a way that produces similar results when repeated, and other researchers using similar methods would reach the same conclusion or collect information is conducted only with their full consent and interest. In this research study, data source triangulation (combining qualitative and quantitative data and using multiple documents and informants) and methodological triangulation (questionnaire, interviews, focus group discussions, and observations) have been applied to gain a more comprehensive and robust understanding by reducing bias and increasing validity. In general, this research study has used a clear and well-defined research objective, an appropriate research method, a

well-designed and validated measure, collected data from a representative sample, analyzed data carefully, and reported data accurately and transparently to ensure validity and reliability.

Table 3-5: Summary of the research methods for each objective

Research objectives	***Data type***	***Methods of data collection***	***Data analysis***
Identifying the malpractices in the case sites	Qualitative	Interview, survey, documents & observation, focus group discussions	Descriptive and thematic
Analyzing how frequently the malpractices occur.	Qualitative	Interview, survey, documents & observation, focus group discussions	Descriptive and thematic
Investigating how malpractices affect housing affordability.	Qualitative & quantitative	Interview, survey, documents & observation, focus group discussions	Descriptive, thematic & Ratio
Examining stakeholders' commitment	Qualitative	Interview, survey, and focus group discussions	Descriptive and thematic

Chapter 3 meticulously outlined the research methodology employed in this study. Utilizing a case study-mixed methods approach, the researcher collected data from the Bole Arabsa and Koye Feche government-sponsored housing projects through various methods, including surveys, interviews, focus group discussions, observations, and document analysis. Chapter 4 delves into the results and discussions of the data analyzed with different techniques. Here, the analysis explores the specific ways in which malpractices hindered affordable housing development in these projects. By critically examining the collected data, the research aimed to identify patterns, connections, and key themes that shed light on the true impact of malpractices. This analysis was further enriched by drawing upon insights from the literature review presented in Chapter 2. Ultimately, Chapter 4 presented the results and engaged in a nuanced discussion of their significance, offering a deeper understanding of the research problem.

Chapter Four: Results and Discussion

Introduction

This chapter deals with the overall findings analyzed by using descriptive, thematic, and ratio analysis techniques, a discussion of the results, and a summary of key findings. It has three major parts. In the first part, the result of the analysis is presented according to the order of research objectives. In the second part, the summary of the findings is presented. Finally, the result of the research was discussed in line with theoretical and empirical findings and primary resources from the case sites under each objective.

4.1 Types of Malpractices

In this section, the first objective of the research is addressed and this objective is identifying the types of malpractices prevalent in the process of government-sponsored housing projects. The types of malpractices are analyzed in the stakeholder selection process, construction material quality, construction material delivery, and payment execution.

4.1.1 Malpractice in Stakeholder Selection Process

Malpractice in the selection process of stakeholders(both sites)

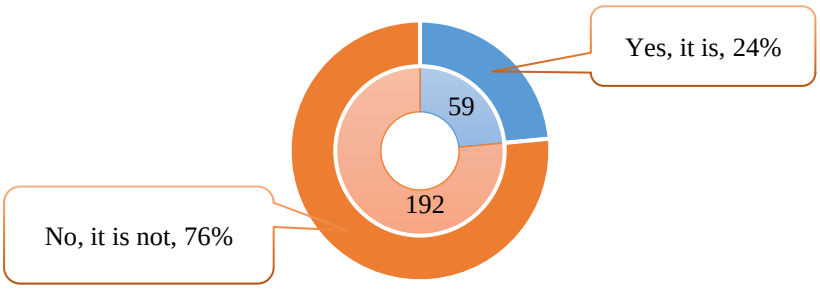

Figure 4-1: Malpractice in the selection process of stakeholders (both sites)

As can be shown in Figure 4-1, 192(76%) of the total 251 respondents have said that the selection process of actors participating in the production of government-sponsored housing process (consultant, contractor, MSEs, project office, etc.) is not based on only the skills and experience required by the work while the remaining 59(24%) have said yes, it is based on only the skills and experience required by the work.

Malpractice in the selection process of stakeholders (Arabsa site)

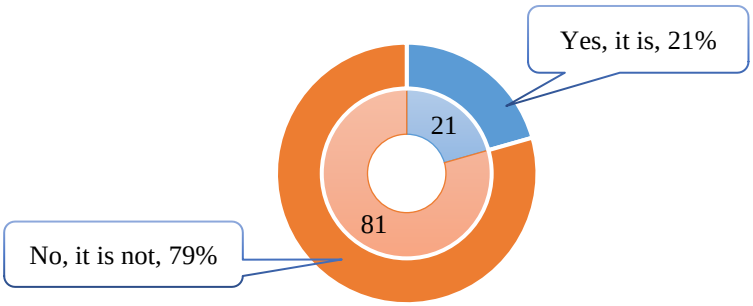

Figure 4-2: Malpractice in the selection process of stakeholders (Arabsa site)

According to the data from Figure 4-2, 81(79%) of the total 102 respondents have said that the selection process of actors participating in the production of government-sponsored housing process (consultant, contractor, MSEs, project office, etc.) is not based on only the skills and experience required by the work while the remaining 21(21%) have said yes, it is based on only the skills and experience required by the work.

Intra-case Comparison Based on the Available Data (Arabsa site)

Table 4-1: Intra-case comparison of malpractices in the selection of actors (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share%	Participants	Share%	Participants	Share%	Participants	Share%
Yes, it is	1	17%	11	20%	3	38%	6	18%
No, it is not	5	83%	44	80%	5	63%	27	82%
Total	6	100%	55	100%	8	100%	33	100%

The percentage of respondents who said the selection process of actors is not based on only the skills and experience required by the work is 83% in the category of consultants, 82% in the category MSE, 80% in the category of contractors, and 63% in the category of project out of the total respondents they have. The rest respondents stated that the selection of actors in the production of the government-sponsored housing process is based on only the skill and experience required by the work.

Malpractice in the selection process of stakeholders (Koye site)

The data in Figure 4-3 reveals that 111(74%) of the total 149 respondents have said that the selection process of actors participating in the production of government-sponsored housing

process (consultant, contractor, MSEs, project office, etc.) is not based on only the skills and experience required by the work while the remaining 38(26%) have said yes, it is based on only the skills and experience required by the work

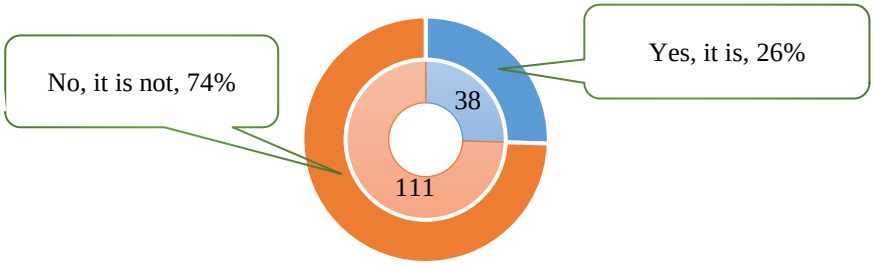

Figure 4-3: Malpractice in the selection process of stakeholders (Koye Feche site)

Intra-case Comparison Based on the Available Data (Koye site)

Table 4-2: Intra-case comparison of malpractices in the selection of actors (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share%	Participants	Share%	Participants	Share%	Participants	Share%
Yes, it is	1	17%	25	26%	2	22%	10	28%
No, it is not	5	83%	73	74%	7	78%	26	72%
Total	6	100%	98	100%	9	100%	36	100%

The percentage of respondents who said the selection process of actors is not based on only the skills and experience required by the work is 83% in the category of consultants, 72% in the category MSE, 73% in the category of contractors, and 78% in the category of project office out of the total respondents they have. While the rest respondents stated that the selection of actors in the production of government-sponsored housing process is based on only the skill and experience required by the work

Inter-case Comparison Based on the Above Available Data

As can be seen from Table 4-3, in terms of answering the selection process of actors is not based on only the skills and experience required by the work, the proportion of consultants is the same on both sites which is 83%, the proportion of contractors is 20% at Arabsa and 26% at Koye site and the proportion of project office is 38% at Arabsa and 22% at Koye. The proportion of MSE is 18% at the Arabsa site and 28% at the Koye site. In general, the Arabsa

site has a higher percentage of respondents who have said the selection of actors is not based on only the skills and experience required by the work when compared to the Koye site

Table 4-3: Inter-case comparison of malpractices in the selection of actors

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Yes, it is	1(17%)	1(17%)	11(20%)	25(26%)	3(38%)	2(22%)	6(18%)	10(28%)
No, it is not	5(83%)	5(83%)	44(80%)	73(74%)	5(63%)	7(22%)	27(82)	26(72%)
Total	6	6	55	98	8	9	33	36

4.1.2 Malpractice in the Quality of Construction Materials

Malpractices in the quality of construction materials (both sites)

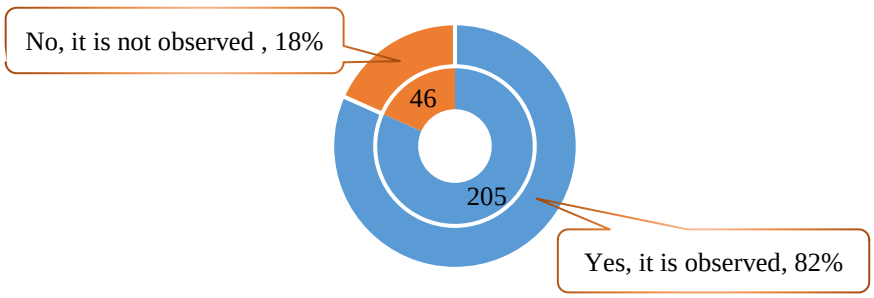

Figure 4-4: Malpractice of using substandard materials (both sites)

As can be shown in Figure 4-4, 205(82%) of the total 251 respondents have said that yes, it is observed that substandard construction materials are used, whether produced by MSEs or provided by contractors and the employer's office while the remaining 46(18%) have said no, it is not observed.

Malpractices in the quality of construction materials (Arabsa site)

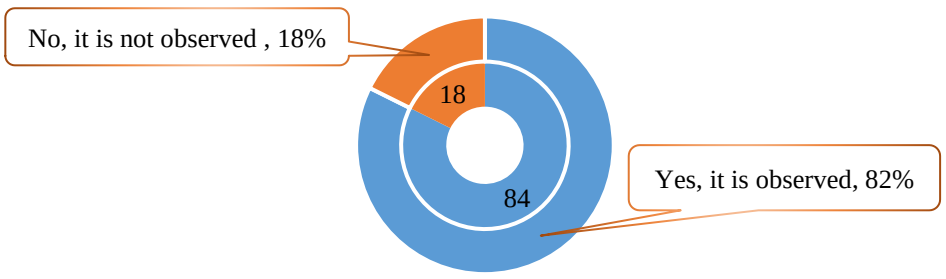

Figure 4-5: Malpractice of using substandard materials (Arabsa)

According to the data from Figure 4-5, 84(82%) of the total 102 respondents have said that yes, it is observed that substandard construction materials are used, whether produced by MSEs or provided by contractors and the employer's office while the remaining 18(18%) have said no, it is not observed.

Intra-case Comparison Based on the Available Data (Arabsa site)

Table 4-4: Intra-case comparison in the malpractice of substandard materials (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Yes, it is observed	4	67%	44	80%	7	88%	29	88%
No, it is not observed	2	33%	11	20%	1	13%	4	12%
Total	6	100%	55	100%	8	100%	33	100%

According to Table 4-4, out of the respondents that have said yes, it is observed that substandard construction materials are used, category of project office and MSE are the first covering 7(88%) of 8 and 29(88%) of 33 respondents respectively, category of contractors is second covering 44(80%) of 55 respondents and the category of consultants is third by covering 4(67%) of 6 respondents. Whereas the remaining respondents stated that it is not observed.

Malpractices in the quality of construction materials (Koye site)

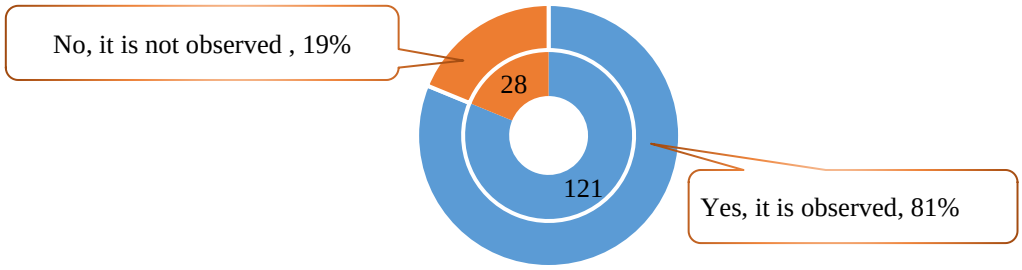

Figure 4-6: Malpractice of using substandard materials (Koye)

As the data in Figure 4-6 shows, 121(81%) of the total 149 respondents have said that yes, it is observed that substandard construction materials are used, whether produced by MSEs or provided by contractors and the employer's office while the remaining 28(19%) have said no, it is not observed.

Intra-case Comparison Based on the Available Data (Koye site)

Table 4-5: Intra-case comparison in the malpractice of using substandard materials (Koye)

Category	Consultant		Contractors		Project Office		MSE	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Yes, it is observed	4	67%	81	83%	7	78%	29	81%
No, it is not observed	2	33%	17	17%	2	22%	7	19%
Total	6	100%	98	100%	9	100%	36	100%

As can be shown in Table-4-5, out of the respondents that have said yes, it is observed that substandard construction materials are used at the Koye site, the category of contractors is the first covering 81(83%) of 98, category of MSE is the second covering 29(81%) of 36 respondents, category of the project office is third covering 7(78%) of 9 respondents and the category of consultants is fourth by covering 4(67%) of 6 respondents. While the remaining respondents revealed that it is not observed.

Inter-case Comparison Based on the Above Available Data

Table 4-6: Inter-case comparison in the malpractice of using substandard materials

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Yes, it is observed	4(67%)	4(67%)	44(80%)	81(83%)	7(88%)	7(78%)	29(88%)	29(81%)
No, it is not observed	2(33%)	2(33%)	11(20%)	17(17%)	1(13%)	2(22%)	4(12%)	7(19%)
Total	6	6	55	98	8	9	33	36

As can be seen from Table 4-6, in terms of answering yes, it is observed that substandard construction materials are used, the proportion of responses at Arabsa and Koye by the category of consultants is 67% and 67%, contractors is 80% and 83%, the project office is 88% and 78% and MSE is 88% and 81% respectively. In general, 84% of the total 102 respondents have said yes, it is observed that substandard construction materials are used, on the Arabsa site, and 81% of 149 on the Koye site.

4.1.3 Malpractice in the Delivery of Construction Materials

Malpractice in the delivery of construction materials (both sites)

As can be shown in Figure 4-7, 218(87%) of the total 251 respondents have said that construction materials produced by MSEs or supplied by contractors and the employer's

office are not delivered according to the given schedule while the remaining 33(13%) have said, yes, they are

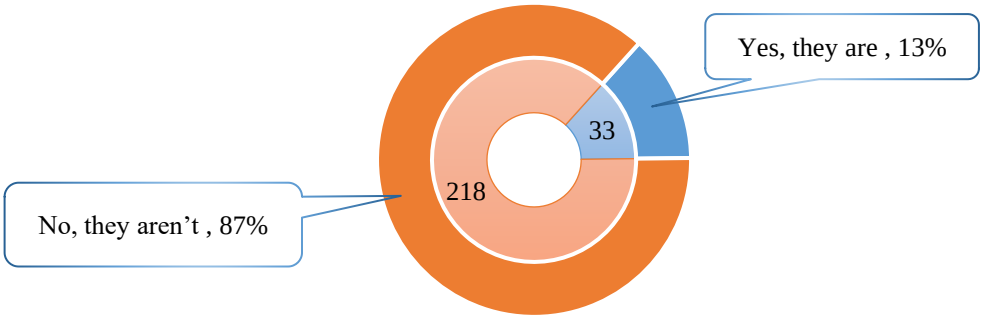

Figure 4-7: Malpractice in the delivery of materials (both sites)

Malpractice in the delivery of construction materials (Arabsa site)

According to the data in Figure 4-8, 92(90%) of the total 102 respondents have said that construction materials produced by MSEs or supplied by contractors and the employer's office are not delivered according to the given schedule while the remaining 10(10%) have said, yes, they are.

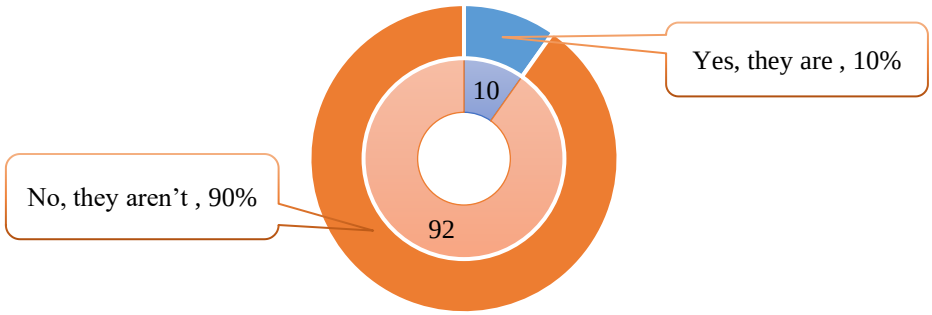

Figure 4-8: Malpractice in the delivery of materials (Arabsa)

Intra-case Comparison Based on the Available Data (Arabsa site)

Out of the responses that said construction materials produced by MSEs or supplied by contractors and the employer's office are not delivered according to the given schedule, the category of consultant is the first covering 6(100%) of 6 responses, category of MSE is second covering 32(97%) of 33 responses, the category of contractors is the third covering 48(87%) of 55 responses and project office is fourth by covering (6)75% of 8 responses. The

remaining responses reveal that construction materials produced by MSEs or supplied by contractors and the employer's office are delivered according to the given schedule.

Table 4-7: Intra-case comparison of malpractice in material delivery (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Yes, they are	0	0%	7	13%	2	25%	1	3%
No, they aren't	6	100%	48	87%	6	75%	32	97%
Total	6	100%	55	100%	8	100%	33	100%

Malpractice in the delivery of construction materials (Koye site)

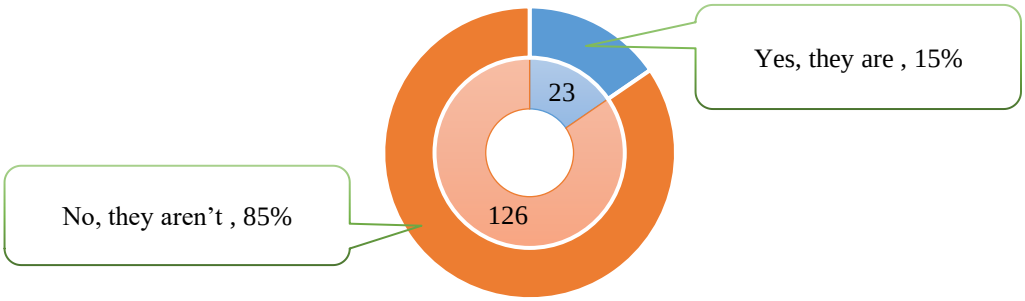

Figure 4-9: Timely provision of construction materials (Koye Feche)

According to the data in Figure 4-9, 126(85%) of the total 149 respondents have said that construction materials produced by MSEs or supplied by contractors and the employer's office are not delivered according to the given schedule while the remaining 23(15%) have said, yes, they are.

Intra-case Comparison Based on the Available Data (Koye site)

Table 4-8: Intra-case comparison of malpractice in material delivery (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Yes, they are	0	0%	17	17%	1	11%	5	14%
No, they aren't	6	100%	81	83%	8	89%	31	86%
Total	6	100%	98	100%	9	100%	36	100%

According to Table 4-8, out of the responses that said construction materials produced by MSEs or supplied by contractors and the employer's office are not delivered according to the given schedule, the category of consultant is the first covering 6(100%) of 6 respondents,

category of project office is second covering 8(89%) of 9 respondents, the category of MSE is the third covering 31(86%) of 36 respondents and contractors is fourth by covering 81(83%) of 98 respondents.

Inter-case Comparison Based on the Above Available Data

As can be seen from Table 4-9, in terms of answering construction materials produced by MSEs or supplied by contractors and the employer's office are not delivered according to the given schedule, the proportion of responses at Arabsa and Koye by the category of consultants is 100% and 100%, contractors is 87% and 83%, the project office is 89% and 97% and MSE is 97% and 86% respectively. In general, 90% of the total 102 respondents have said construction materials produced by MSEs or supplied by contractors and the employer's office are not delivered according to the given schedule on the Arabsa site, and 85% of 149 on the Koye site.

Table 4-9: Inter-case comparison of malpractice in material delivery

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Yes, they are	0	0	7(13%)	17(17%)	2(25%)	1(11%)	1(3%)	5(14%)
No, they aren't	6(100%)	6(100%)	48(87%)	81(83)	6(75)	8(89%)	32(97%)	31(86%)
Total	6	6	55	98	8	9	33	36

4.1.4 Malpractice in the Payment Execution

Malpractice in the payment execution (both sites)

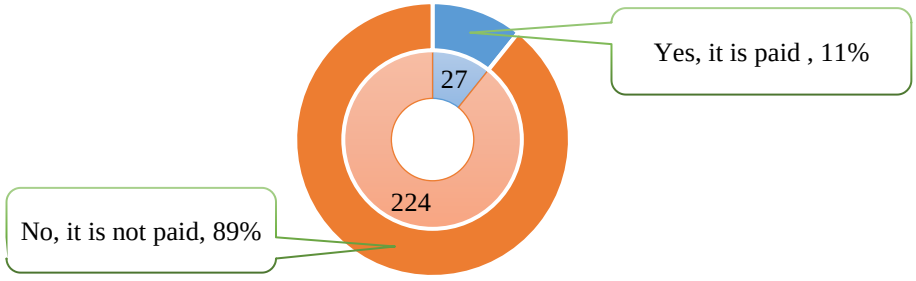

Figure 4-10: Malpractice in the payment execution (both sites)

As can be shown in Figure 4-10, 224(89%) of the total 251 respondents have said that the payment requests by contractors and MSEs are not being paid on time according to the contract all the time while the remaining 27(11%) have said, yes, it is paid.

Malpractice in the payment execution (Arabsa site)

According to the data in Figure 4-11, 91(89%) of the total 102 respondents have said that the payment request by contractors and MSEs is not being paid on time according to the contract all the time while the remaining 11(11%) have said, yes, it is paid

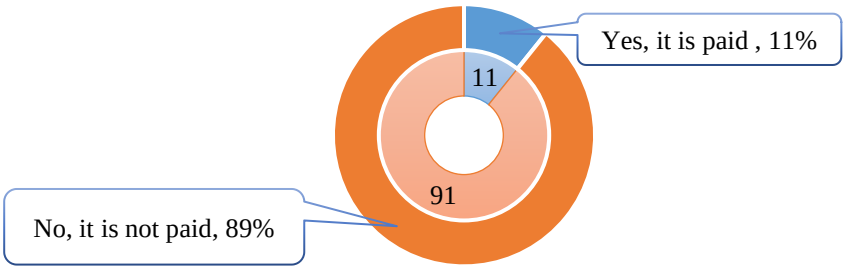

Figure 4-11: Malpractice in the payment execution (Arabsa)

Intra-case Comparison Based on the Available Data (Arabsa site)

Table 4-10: Intra-case comparison of malpractice in payment execution (Arabsa)

Category	Consultant		Contractors		Project Office		MSE	
Response	Response number	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Yes, it is paid	1	17%	5	9%	3	38%	2	6%
No, it is not paid	5	83%	50	91%	5	63%	31	94%
Total	6	100%	55	100%	8	100%	33	100%

Out of the responses that said the payment request by contractors and MSEs is not being paid on time according to the contract all the time, the category of MSE is first covering 31(94%) of 33 respondents, the category of contractors is the second covering 50(91%) of 55 respondents, category of consultant is the third covering 5(83%) of 6 respondents, and project office is fourth by covering 5(63%) of 8 respondents.

Malpractice in the payment execution (Koye site)

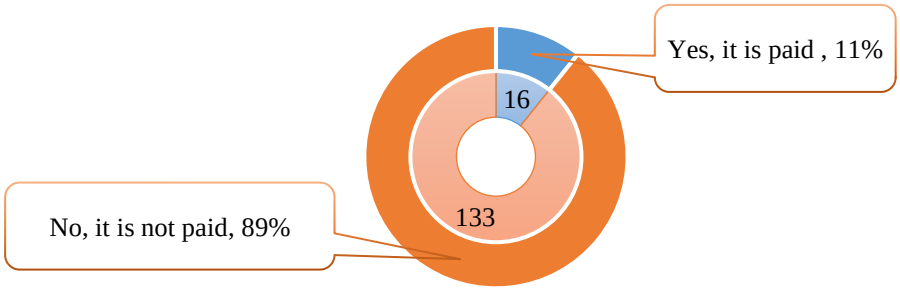

Figure 4-12: Malpractice in the payment execution (Koye)

According to the data in Figure 4-12, 133(89%) of the total 149 respondents have said that the payment requests by contractors and MSEs are not being paid on time according to the contract all the time while the remaining 16(11%) have said, yes, it is paid.

Intra-case Comparison Based on the Available Data (Koye site)

Based on Table 4-11, out of the responses that said the payment request by contractors and MSEs is not being paid on time according to the contract all the time, the category of MSE is first covering 33(92%) of 36 respondents, the category of contractors and project office are the second covering 87(89%) of 98 respondents and 8(89%) of 9 respondents respectively, category of consultant is the third covering 5(83%) of 6 respondents.

Table 4-11: Intra-case comparison of malpractice in payment execution (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Response number	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Yes, it is paid	1	17%	11	11%	1	11%	3	8%
No, it is not paid	5	83%	87	89%	8	89%	33	92%
Total	6	100%	98	100%	9	100%	36	100%

Inter-case Comparison Based on the Above Available Data

As can be seen from Table 4-12, in terms of answering the payment request by contractors and MSEs is not being paid on time according to the contract all the time at Arabsa and Koye by the category of consultants 83% and 83%, contractors are 91% and 89%, the project office is 38% and 11% and MSE is 94% and 92% respectively.

Table 4-12: Inter-case comparison of malpractice in payment execution

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Yes, it is paid	1(17%)	1(17%)	5(9%)	11(11%)	3(38%)	1(11%)	2(6%)	3(8%)
No, it is not paid	5(83%)	5(83%)	50(91%)	87(89%)	5(63%)	8(89%)	31(94%)	33(92%)
Total	6	6	55	98	8	9	3	36

In general, 89% of the total 102 respondents have said that stakeholders or actors in the work process are exposed to unwanted illegal activity/corruption due to failure to supply construction materials according to the set timetable or When there exists a shortage of construction materials on the Arabsa site, and 89% of 149 on the Koye site.

Results from interviews regarding the malpractices

In Figure 4-13, respondents identified key malpractices in government-sponsored housing projects. Based on 26 responses from 10 interviewees, here's a breakdown: Stakeholder selection (23%): Individuals were chosen based on factors other than qualifications, material delivery delays (23%), payment execution delays (23%), and Substandard Materials (31%).

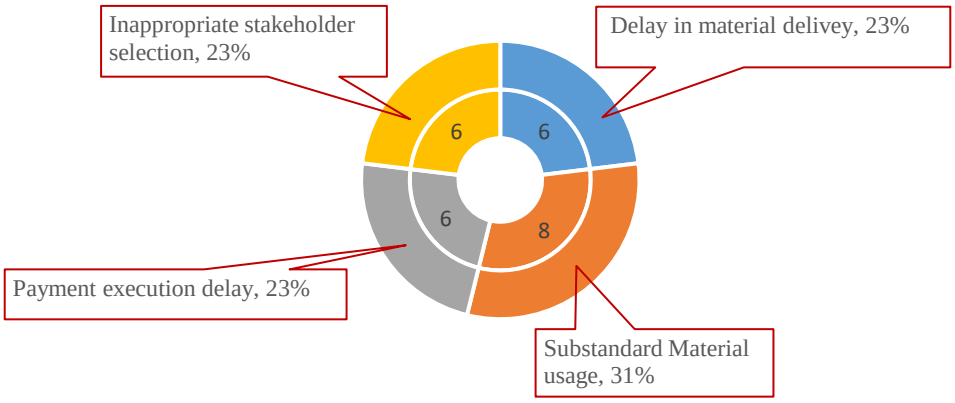

Figure 4-13: Malpractices in the case sites

Comparing the two sites reveals some interesting trends as it can be shown in Table 4-13. Koye witnessed a higher percentage of interviewees reporting selection based on factors other than qualifications. Arabsa saw a greater number of interviewees highlighting issues like material delivery delays, payment execution delays, and the use of substandard materials.

Table 4-13: Inter-Comparison on Malpractices

Malpractices	Arabsa	Koye
Selecting stakeholders based on factors other than skill and experience	2(17%)	4(29%)
The use of substandard materials	4(33%)	4(29%)
Material delivery delay	3(25	3(21%)
Payment execution delay	3(25%)	3(21%)
Total	12(100%)	14(100%)

Results from focus group discussion regarding the malpractices

Analysis of Figure 4-14 reveals concerning trends in government-sponsored housing projects**.** A significant portion (26%) of focus group participants identified three key issues: delayed payment execution, inappropriate stakeholder selection, and substandard materials. An additional 22% of respondents reported facing material delivery delays.

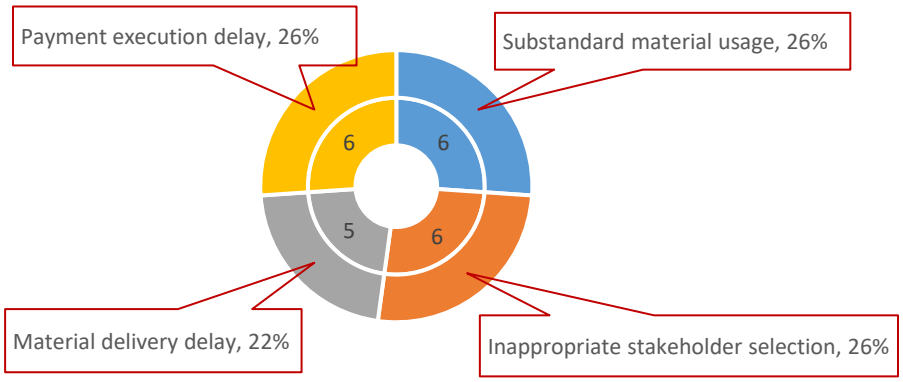

Figure 4-14: Malpractices from focus group discussions

Table 4-14: Inter-case comparison of malpractices from focus group discussion

Malpractices	Arabsa	Koye
Selecting stakeholders based on factors other than skill and experience	3(27%)	3(25%)
The use of substandard materials	2(18%)	4(33%)
Material delivery delay	3(27%)	2(17%)
Payment execution delay	3(27%)	3(25%)
Total	11(100%)	12(100%)

Data from Table 4-14 reveals a concerning disparity between project sites**.** Focus group participants at Arabsa reported a higher prevalence of inappropriate stakeholder selection, material delivery delays, and payment execution delays compared to Koye. Koye saw a higher frequency of responses indicating the use of substandard materials.

Result from Observation

Table 4-15: Results of Observation

Checklist for the observation	Status	Observed number
Roof	Leakage, low quality	4
Stairs	Exposed bars and concrete have been removed	3
Window	borken frames	7
Door	Broken door hinges	5
Wall	Deterioration due to rain	3
Proper drainage	No properly built drainages	2

During the observation, problems are perceived in the roof, stairs, windows, doors, walls, and drainage system.

Results from Residents and Contractors' Complaints

Table 4-16: Contractors Complaint

The issue: Requesting payment for work done so that we can complete the remaining works	Description	Theme
Regarding the G+7 block construction contract that our company has with your project office, in letter No. X dated May 28, 2015, with the subject "Notifying you to complete the remaining works and the works that need to be corrected immediately", we are responding to this by first understanding the urgency of the project. We would like to assure you that we are committed to delivering the project satisfactorily. Therefore, we have been repeatedly informed about the many challenges we faced during the construction of the project, but we have been working by purchasing cement at a high price in order not to stop the project when cement could not be provided by the government. The project has reached more than 97% of its current status.	Material provision problem	Material delivery delay
At present, even though the price of roof waterproofing membrane, wall ceramic, ground terrazzo, and so on have increased significantly in the market, our company has made a firm decision to deal with losses and make pre-arranged deals with suppliers by understanding the urgency of the project and the direction of the government's attention. For this, we are waiting for you to make payment for the painting, staircase, and toilet window so that we can make payment for the purchase and delivery of goods.		cost increase
Therefore, to complete and deliver the project within the given time frame, we humbly ask you to pay for the work done without further delay so that we can pay for the above-mentioned and other necessary materials to complete the remaining works. Believing that it is the best option and expressing our company's special attention to the success of the project, we respectfully ask for your support.	payment issue	Payment execution delay

The findings of data in Tables 4-16, 4-17, and 4-18 reveal clear evidence of malpractices in government-sponsored housing projects. These malpractices include the use of substandard materials, material delivery delays, and payment execution delays.

Table 4-17: Resident Complaint-1

Complaint	Description	Theme
As we are residents of Block X, the roof of our block is leaking, although we have repeatedly complained to Mr. Y, the association that built the roof, we have not found any solution and the building is in danger, so we humbly request that you take the necessary steps to monitor and take action.	Roof leakage and building in danger	quality is compromised

Table 4-18: Resident Complaint-2

Complaint	Description	Theme
Subject: Regarding the complaint of Block X and Y.		
Our association, Misrak Tsehay Block B Condominium Owners Pvt./Yeg. However, among the problems that have not been solved in Blocks B and F, the following are the problems. Residents living in the basement and ground floor have floods coming from different directions into their houses, so if it is possible to work before winter	Ditch problem	quality problem
Since there are no stairs in either building, it is difficult for the community to enter and exit the house, so we request that the working conditions be facilitated. The problem of the residents around both buildings is well known by our association, so we have come to our attention and we are requesting that the situation be made easier for them first.	Problem of staircases	quality problem

4.2 The Frequency of the Malpractices

In this section, the second objective of the research is addressed and this objective is examining the frequency of malpractices in government-sponsored housing projects. The malpractices such as selecting stakeholders based on factors other than skill and experience, the use of substandard construction material, construction material delivery delay, and untimely payment execution are observed relatively frequently at least 1-5 times a year.

4.2.1 The Frequency of Malpractice in Stakeholder Selection

The frequency of malpractice in stakeholder selection (both sites)

As can be seen in Figure 4-15, out of 251 respondents, 122(49%) said that they notice the problem during the selection of actors about 1 to 5 times in a year, 61(24%) said the problem

does not exist, 38(15%) have agreed that the problem exists, but they have not noticed and 30(12%) notice 6 to 10 times in a year

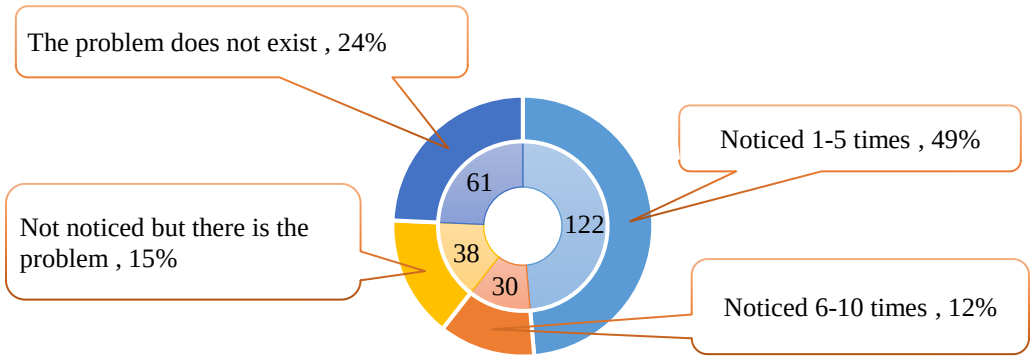

Figure 4-15: Frequency of malpractice in the selection of actors (both sites)

The frequency of malpractice in stakeholder selection (Arabsa site)

According to the data in Figure 4-16, out of 102 respondents, 52(51%) said that they notice the problem during the selection of actors about 1 to 5 times in a year, 22(22%) said the problem does not exist, 13(13%) have agreed that the problem exists, but they have not noticed and 15(15%) notice 6 to 10 times in a year.

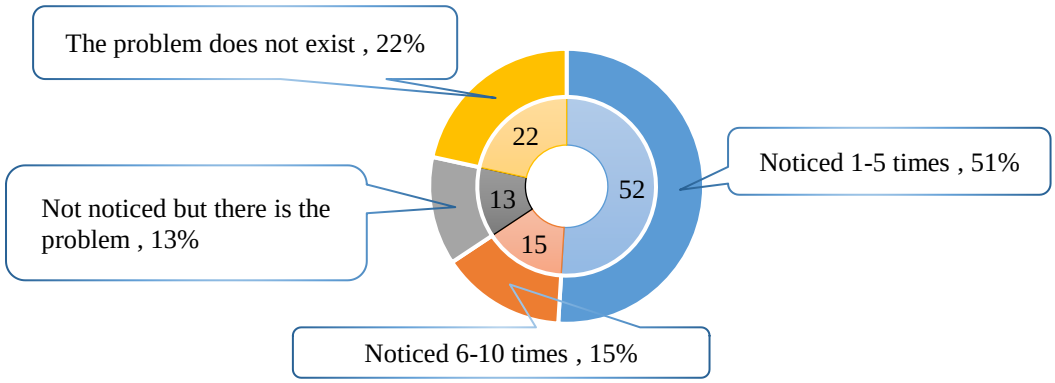

Figure 4-16: Frequency of malpractice in the selection of actors (Arabsa)

Intra-case Comparison Based on the Available Data (Arabsa site)

Out of the respondents who revealed that they have noticed the problem of not selecting actors based on skill and experience 1-5 in a year, the category of the consultants is the first covering 5(83%) of 6 respondents, MSE is second covering 20(61%) of 33 respondents, contractors is third by covering 25(45%) of 55 and project office is fourth by covering 2(25%) of 8. Among the respondents who revealed that they have noticed the problem of not

selecting actors based on skill and experience 6-10 in a year, the category of the contractors is first by covering 11(20%) of 55 and the project office is second by covering 2(25%) of 8.

Table 4-19: Intra-case comparison on the frequency of malpractice (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	5	83%	25	45%	2	25%	20	61%
Noticed 6-10 times	0	0%	11	20%	0	0%	4	12%
Noticed > 10 times	0	0%	0	0%	0	0%	0	0%
Not noticed but there is a problem	0	0%	8	15%	3	38%	2	6%
The problem does not exist	1	17%	11	20%	3	38%	7	21%
Total	6	100%	55	100%	8	100%	33	100%

At this site, nobody noticed the problem more than 10 times in a year. Out of the respondents who said not noticed but there is the problem of not selecting actors based on skill and experience in a year, the category of the project office is the first covering 3(38%) of 8 and contractors is the second by covering 8(15%) of 55. The rest categories did not say this. Among the respondents who revealed that the problem does not exist in a year, the category of the project office is first covering 3(38%) of 8, MSE is the second covering 7(21%), contractors is the third covering 11(20%) of 55 and consultants is the fourth covering 1(17%) of 6.

The frequency of malpractice in stakeholder selection (Koye site)

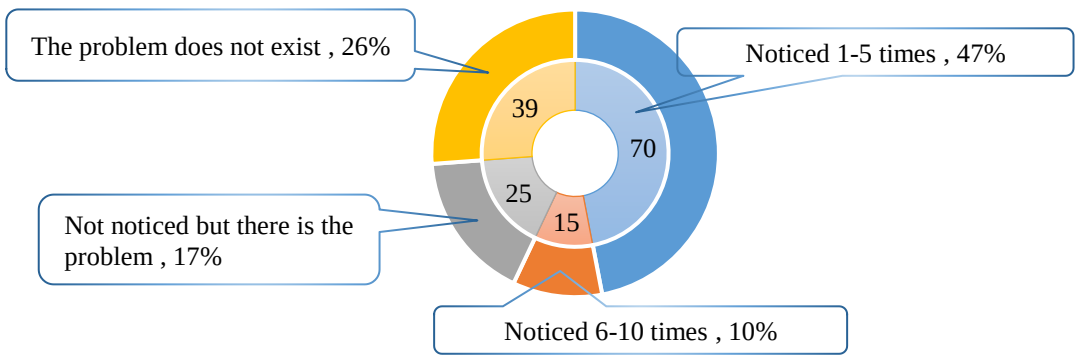

Figure 4-17: Frequency of malpractice in the selection of actors (Koye Feche)

As can be seen in Figure 4-17, out of 149 respondents, 70(47%) said that they have noticed the problem during the selection of actors about 1 to 5 times in a year, 39(26%) said the

problem does not exist, 25(17%) have agreed that the problem exists, but they have not noticed and 15(10%) notice 6 to 10 times in a year.

Intra-case comparison based on the available data (Koye site)

Out of the respondents that have noticed the problem of not selecting actors based on skill and experience 1 to 5 times in a year, the category of consultants is the first covering 5(83%) of 6 respondents, category of the project office is second covering 5(56%) of 9 respondents, the category of contractors is third by covering 44(45%) of 98 respondents and the category of MSE is fourth by covering 16(44%) of 36 respondents. Among the respondents who revealed that they have noticed the problem of not selecting actors based on skill and experience 6-10 in a year, the category of the contractors is first by covering 12(12%) of 98 and MSE is second by covering 3(8%) of 36. Out of the respondents who said not noticed but there is the problem of not selecting actors based on skill and experience in a year, the category of the project office is the first covering 2(22%) of 9 and MSE is the second by covering 7(19%) of 36 and contractors is the third covering 16(16%) of 98.

Table 4-20: Intra-case comparison on the frequency of malpractice (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	5	83%	44	45%	5	56%	16	44%
Noticed 6-10 times	0	0%	12	12%	0	0%	3	8%
Noticed > 10 times	0	0%	0	0%	0	0%	0	0%
Not noticed but there is a problem	0	0%	16	16%	2	22%	7	19%
The problem does not exist	1	17%	26	27%	2	22%	10	28%
Total	6	100%	98	100%	9	100%	36	100%

The category of consultants did not say this. Among the respondents who revealed that the problem does not exist in a year, the category of MSE is the first covering 10(28%) of 36, the category of contractors is the second covering 26(27%) of 98, the project office is third by covering 2(22%) of 9, and consultants is the fourth covering 1(17%) of 6.

Inter-case Comparison Based on the Above Available Sata

According to Table 4-21, the proportion of responses by the category of consultants at Arabsa, that says noticed the problem 1-5 times in a year is 83% which is similar to the case of the Koye site, which noticed 6-10 times in a year is 0% on both sites, neither Arabsa nor

Koye site noticed the problem more than 10 times in a year. Not noticed but there is the problem is 0% at Arabsa and 15% at the Koye site. The problem does not exist is 17% which is similar to the Koye site. The proportion of responses by the category of contractors at Arabsa, that noticed the problem 1-5 times in a year is 45% which is similar to the case of the Koye site, which noticed 6-10 times in a year is 20% and 12% at Koye site, noticed >10 times is 0% and which is similar to Koye site, not noticed but there is the problem is 15% at Arabsa and 16% at Koye site and the problem does not exist is 20% and 27% at Koye site. The proportion of responses by the category of contractors at Arabsa, that noticed the problem 1-5 times in a year is 25% which is similar to the case of the Koye site, noticed 6-10 times in a year is 0% and which is similar to the Koye site, noticed >10 times also is 0% and which is similar to Koye site, not noticed but there is the problem is 38% at Arabsa and 22% at Koye site and the problem does not exist is 38% and 22% at Koye site. The proportion of responses by the category of contractors at Arabsa, that says noticed the problem 1-5 times in a year is 61%, and 44% at the Koye site, noticed 6-10 times in a year is 12%, and 8% at Koye site, noticed >10 times is 0% and which is similar to Koye site, not noticed but there is the problem is 6% and 19% at Koye site and the problem does not exist is 21% and 28% at Koye site

Table 4-21: Inter-case comparison on the frequency of malpractice in stakeholder selection

Category	Consultants		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Noticed 1-5 times	5(83%)	5(83%)	25(45%)	44(45%)	2(25%)	5(56%)	20(61%)	16(44%)
Noticed 6-10 times	0	0	11(20%)	12(12%)	0	0	4(12%)	3(8%)
Noticed > 10 times	0	0	0	0	0	0	0	0
Not noticed but there is a problem	0	0	8(15%)	16(16%)	3(38%)	2(22%)	2(6%)	7(19%)
The problem does not exist	1(17%)	1(17%)	11(20%)	26(27%)	3(38)	2(22%)	7(21%)	10(28%)
Total	6	6	55	98		9	33	36

4.2.2 The Frequency of Malpractice in the Quality of Materials

The frequency of malpractice in the construction material quality (both sites)

As can be seen in Figure 4-18, out of 251 respondents, 109(43%) said that they notice the problem of using substandard materials about 1 to 5 times in a year, 44(18%) said the

problem does not exist, 21(8%) have agreed that the problem exists, but they have not noticed, 54(22%) notice 6 to 10 times in a year and 23(9%) noticed more than 10 times.

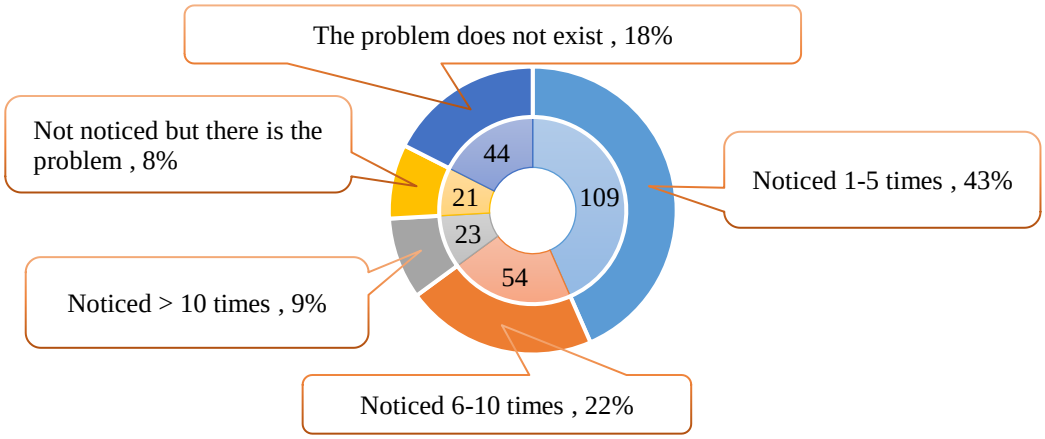

Figure 4-18: The frequency of malpractice in the material quality (both sites)

The frequency of malpractice in the construction material quality (Arabsa site)

According to the data in Figure 4-19, out of 102 respondents, 39(38%) said that they notice the problem of using substandard materials about 1 to 5 times in a year, 16(16%) said the problem does not exist, 5(5%) have agreed that the problem exists, but they have not noticed, 26(25%) notice 6 to 10 times in a year and 16(16%) noticed more than 10 times.

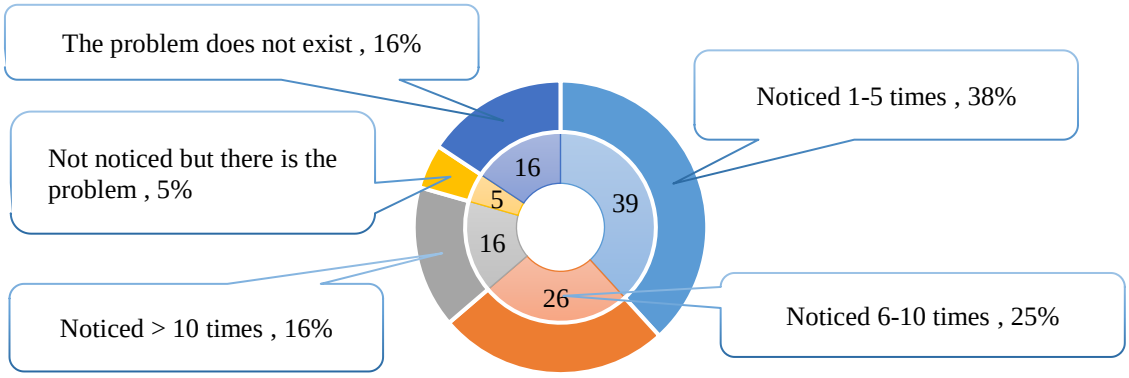

Figure 4-19: The frequency of malpractice in the material quality (Arabsa)

Intra-case Comparison Based on the Available Data (Arabsa site)

According to Table 4-10, out of the respondents that have noticed the problem of using substandard construction materials 1 to 5 times in a year, the category of the project office is the first covering 5(63%) of 8 respondents, the category of contractors is second covering

21(38%) of 55 respondents, the category of consultants and MSE are third and fourth by covering 2(33%) of 6 respondents and 11(33%) of 33 respondents respectively.

Among the respondents that have noticed the problem of using substandard construction materials 6 to 10 times in a year, the category of MSE is the first covering 11(33%) of 33 respondents, the category of contractors is second covering 13(24%) of 55 respondents, the category of consultants is third by covering 1(17%) of 6 respondents and the category of project office is the fourth by covering 1(13%) of 8 respondents.

Table 4-22: Intra-case comparison on the frequency of the malpractice (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Occurrence of the problem	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	2	33%	21	38%	5	63%	11	33%
Noticed 6-10 times	1	17%	13	24%	1	13%	11	33%
Noticed > 10 times	1	17%	9	16%	0	0%	6	18%
Not noticed but there is the problem	0	0%	3	5%	1	13%	1	3%
The problem does not exist	2	33%	9	16%	1	13%	4	12%
Total	6	100%	55	100%	8	100%	33	100%

Out of the respondents that have noticed the problem of using substandard construction materials more than 10 times in a year, the category of MSE is the first covering 6(18%) of 33 respondents, the category of consultants is second covering 1(17%) of 6 respondents, the category of contractors is third by covering 1(16%) of 55 respondents and the category of project office did say nothing about the issue. Among the respondents who stated that not noticed but there was a problem, the category of the project office is the first covering 1(13%) of 8 respondents, the category of contractors is the second covering 3(5%) of 55 respondents, the category of MSE is the third covering 1(3%) of 33 respondents and the category of consultants did say nothing about the issue. Out of the respondents who stated that the problem does not exist, the category of consultants is the first covering 2(33%) of 6 respondents, the category of contractors is the second covering 9(16%) of 55 respondents, the category of project office is the third covering 1(13%) of 8 respondents and the category of MSE is the fourth covering 4(12%) of 33 respondents.

The frequency of malpractice in the construction material quality (Koye site)

As the data can be seen in Figure 4-20, out of 149 respondents, 70(47%) said that they notice the problem of using substandard materials about 1 to 5 times in a year, 28(19%) said the problem does not exist, 16(11%) have agreed that the problem exists, but they have not noticed, 28(19%) notice 6 to 10 times in a year and 7(5%) noticed more than 10 times.

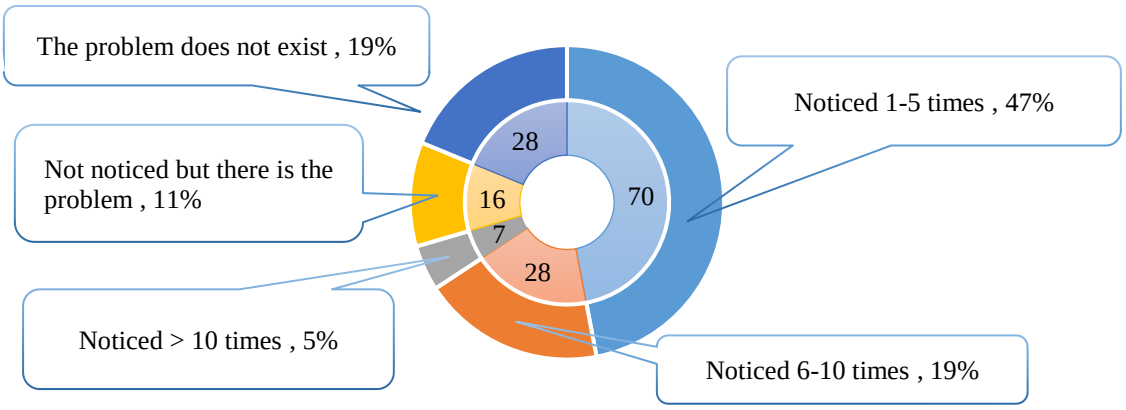

Figure 4-20: The frequency of malpractice in the material quality (Koye)

Intra-case Comparison Based on the Available Data (Koye site)

Among the respondents that have noticed the problem of using substandard construction materials 6 to 10 times in a year, the category of contractors is the first covering 19(35%) of 98 respondents, the category of MSE is the second covering 8(22%) of 36 respondents, the category of consultants is third by covering 1(17%) of 6 respondents and the category of project office did say nothing about the issue. Out of the respondents that have noticed the problem of using substandard construction materials more than 10 times in a year, the category of consultants is the first covering 1(17%) of 6 respondents, the category of contractors is second covering 6(11%) of 98 respondents, and the category of project office and MSE did say nothing about the issue. Among the respondents who stated that not noticed but there was a problem, the category of contractors is the first covering 12(22%) of 98 respondents, the category of the project office is the second covering 1(11%) of 9 respondents, the category of MSE is the third covering 3(8%) of 36 respondents and the category of consultants did say nothing about the issue. Out of the respondents that have noticed the problem of using substandard construction materials 1 to 5 times in a year, the category of contractors is the first covering 44(80%) of 98 respondents, the category of the project office is second covering 6(67%) of 9 respondents, the category of MSE is the third

covering 18(50%) of 36 respondents and category of consultants is the fourth covering 2(33%) of 6 respondents.

Table 4-23: Intra-case comparison on the frequency of the malpractice (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Occurrence of the problem	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	2	33%	44	80%	6	67%	18	50%
Noticed 6-10 times	1	17%	19	35%	0	0%	8	22%
Noticed > 10 times	1	17%	6	11%	0	0%	0	0%
Not noticed but there is a problem	0	0	12	22%	1	11%	3	8%
The problem does not exist	2	33%	17	31%	2	22%	7	19%
Total	6	100%	98	178%	9	100%	36	100%

Out of the respondents who stated that the problem does not exist, the category of consultants is the first covering 2(33%) of 6 respondents, the category of contractors is the second covering 17(31%) of 98 respondents, the category of project office is the third covering 2(22%) of 9 respondents and the category of MSE is the fourth covering 7(19%) of 36 respondents.

Inter-case Comparison Based on the Above Available Data

Table 4-24: Inter-case comparison on the frequency of malpractice in material quality

Category	Consultant		Contractors		Project Office		MSEs	
Occurrence of the problem	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Noticed 1-5 times	2(33%)	2(33%)	21(38%)	44(80%)	5(63%)	6(67%)	11(33%)	18(50%)
Noticed 6-10 times	1(17%)	1(17%)	13(24%)	19(35%)	1(13%)	0	11(33%)	8(22%)
Noticed > 10 times	1(17%)	1(17%)	9(16%)	6(11%)	0	0	6(18%)	0
Not noticed but there is the problem	0	0	3(5%)	12(22%)	1(13%)	1(11%)	1(3%)	3(8%)
The problem does not exist	2(33%)	2(33%)	9(16%)	17(31%)	1(13%)	2(22%)	4(12%)	7(19%)
Total	6	6	55	98	8	9	33	36

Based on Table 4-24, the proportion of responses by the category of consultants at Arabsa, that noticed the problem 1-5 times in a year is 33% which is similar to the case of the Koye site, noticed 6-10 times in a year is 17% on both sites, noticed the problem more than 10 times in a year is 17% at both sites, Not noticed but there is the problem is 0% at both sites. The problem does not exist is 33% which is similar to the Koye site.

The proportion of responses by the category of contractors at Arabsa, that says noticed the problem 1-5 times in a year is 38% at Arabsa and 80% at the Koye site, noticed 6-10 times in a year is 24% at Arabsa and 35% at Koye site, noticed more than 10 times is 16% at Arabsa and 11% at Koye site, not noticed but there is the problem is 5% at Arabsa and 22% at Koye site and the problem does not exist is 16% and 31% at Koye site. The proportion of responses by the category of contractors at Arabsa, that says noticed the problem 1-5 times in a year is 63% at Arabsa and 67% at the Koye site, noticed 6-10 times in a year is 13% at Arabsa 0% at the Koye site, noticed >10 times also is 0% and which is similar to Koye site, not noticed but there is the problem is 13% at Arabsa and 11% at Koye site and the problem does not exist is 13% and 22% at Koye site. The proportion of responses by the category of contractors at Arabsa, that says noticed the problem 1-5 times in a year is 33%, and 50% at the Koye site, noticed 6-10 times in a year is 33% and 22% at Koye site, noticed >10 times is 18% at Arabsa and 0% at the Koye site, not noticed but there is the problem is 3% and 8% at Koye site and the problem does not exist is 19% and 19% at Koye site

4.2.3 The Frequency of Malpractice in the Delivery of Materials

The frequency of malpractice in construction material delivery (both sites)

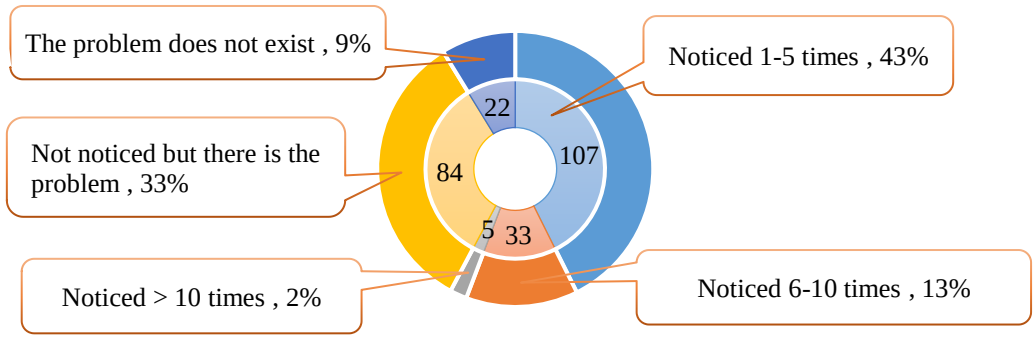

Figure 4-21: Frequency of malpractice in the delivery of materials (both sites)

As can be seen in Figure 4-21, out of 251 respondents, 107(43%) said that they notice the problem of not delivering material according to the schedule about 1 to 5 times in a year, 22(9%) said the problem does not exist, 84(33%) have agreed that the problem exists, but they have not noticed, 33(13%) notice 6 to 10 times in a year and 5(2%) noticed more than 10 times.

The frequency of malpractice in construction material delivery (Arabsa site)

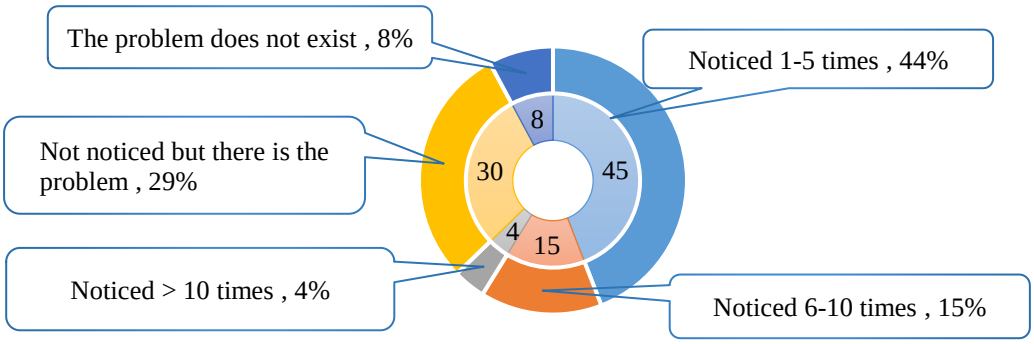

Figure 4-22: Frequency of malpractice in the delivery of materials (Arabsa)

According to the data in Figure 4-22, out of 102 respondents, 45(44%) said that they notice the problem of not delivering material according to the schedule about 1 to 5 times in a year, 8(8%) said the problem does not exist, 30(29%) have agreed that the problem exists, but they have not noticed, 15(15%) notice 6 to 10 times in a year and 4(4%) noticed more than 10 times.

Intra-case Comparison Based on the Available Data (Arabsa site)

Based on Table 4-25, out of the respondents that have noticed the problem of not delivering material according to the schedule 1 to 5 times in a year, the category of consultants is the first covering 4(67%) of 6 respondents, category of contractors is second covering 26(47%) of 55 respondents, the category of MSE is the third covering 14(42%) of 33 respondents and the category of project office is fourth by covering 1(13%). Among the respondents that have noticed the problem of being exposed to corruption due to failure to supply construction resources timely 6 to 10 times in a year, the category of MSE is the first covering 6(18%) of 33 respondents, category of contractors is second covering 9(16%) of 55 respondents and the category of consultants and project office did say nothing about the issue.

Among the respondents that have noticed the problem of being exposed to corruption due to failure to supply construction resources timely more than 10 times in a year, the category of contractors is first covered by 3(5%) of 55 respondents the category of MSE is the second covering 1(3%) of 33 respondents, and the category of consultants and project office did say nothing about the issue. Among the respondents who stated that not noticed but there was a problem the category of the project office is the first covering 5(63%) of 6 respondents, the category of consultants and MSE is the second covering 2(33%) of 6 respondents, and

11(33%) of 33 respondents respectively, the category of contractors is the fourth covering 12(22%) of 55 respondents.

Table 4-25: Intra-case comparison of the frequency of the malpractice (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Response number	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	4	67%	26	47%	1	13%	14	42%
Noticed 6-10 times	0	0%	9	16%	0	0%	6	18%
Noticed > 10 times	0	0%	3	5%	0	0%	1	3%
Not noticed but there is a problem	2	33%	12	22%	5	63%	11	33%
The problem does not exist	0	0%	5	9%	2	25%	1	3%
Total	6	100%	55	100%	8	100%	33	100%

Out of the respondents who stated that the problem does not exist, the category of the project office is the first covering 2(25%) of 8 respondents, the category of contractors is the second covering 5(9%) of 55 respondents, the category of MSE is the third covering 1(3%) of 33 respondents and the category of consultants did say nothing about this issue.

The frequency of malpractice in construction material delivery (Koye site)

According to the data in Figure 4-23, out of 149 respondents, 62(42%) said that they notice the problem of not delivering material according to the schedule about 1 to 5 times in a year, 14(9%) said the problem does not exist, 54(36%) have agreed that the problem exists, but they have not noticed, 18(12%) notice 6 to 10 times in a year and 1(1%) noticed more than 10 times.

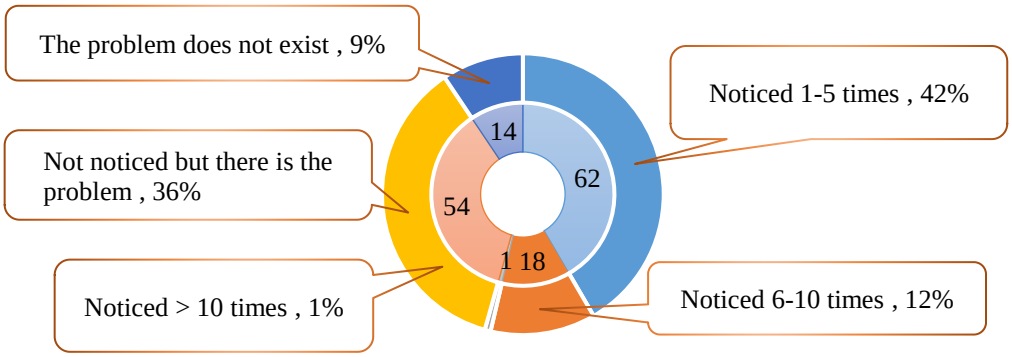

Figure 4-23: Frequency of malpractice in the delivery of materials (Koye Feche)

Intra-case Comparison Based on the Available Data (Koye site)

In Table 4-26, out of the respondents that have noticed the problem of not delivering material according to the schedule 1 to 5 times in a year, the category of consultants is the first covering 4(67%) of 6 respondents, category of contractors is second covering 42(43%) of 98 respondents, the category of MSE is the third covering 13(36%) of 36 respondents and the category of project office is fourth by covering 3(33%) of 9 respondents. Among the respondents that have noticed the problem of being exposed to corruption due to failure to supply construction resources timely 6 to 10 times in a year, the category of MSE is the first covering 6(17%) of 36 respondents, category of contractors is second covering 12(12%) of 55 respondents and the category of consultants and project office did say nothing about the issue. Among the respondents that have noticed the problem of being exposed to corruption due to failure to supply construction resources timely more than 10 times in a year, the category of MSE is the only one covering 1(3%) of 36. Among the respondents who stated that not noticed but there was a problem the category of project office is the first covering 5(56%) of 6 respondents, the category of MSE is the second covering 13(36%) of 36 respondents and the category of contractors is 34(35%) of 98 respondents respectively, the category of consultants is the fourth covering 2(33%) of 6 respondents.

Table 4-26: Intra-case comparison of the frequency of the malpractice (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	4	67%	42	43%	3	33%	13	36%
Noticed 6-10 times	0	0%	12	12%	0	0%	6	17%
Noticed > 10 times	0	0%	0	0%	0	0%	1	3%
Not noticed but there is the problem	2	33%	34	35%	5	56%	13	36%
The problem does not exist	0	0%	10	10%	1	11%	3	8%
Total	6	100%	98	100%	9	100%	36	100%

Out of the respondents who stated that the problem does not exist, the category of the project office is the first covering 1(11%) of 8 respondents, the category of contractors is the second covering 10(10%) of 96 respondents, the category of MSE is the third covering 3(8%) of 36 respondents and the category of consultants did say nothing about this issue.

Inter-case comparison based on the above available data

Table 4-27: Inter-case comparison of the frequency of malpractice in material delivery

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Noticed 1-5 times	4(67%)	4(67%)	26(47%)	42(43%)	1(13%)	3(33%)	14(42%)	13(36%)
Noticed 6-10 times	0	0	9(16%)	12(12%)	0	0	6(18%)	6(17%)
Noticed > 10 times	0	0	3(5%)	0	0	0	1(3%)	1(3%)
Not noticed but there is the problem	2(33%)	2(33%)	12(22%)	34(35%)	5(63%)	5(56%)	11(33%)	13(36%)
The problem does not exist	0	0	5(9%)	10(10%)	2(25%)	1(11%)	1(3%)	3(8%)
Total	6	6	55	98	8	9	33	36

The proportion of responses by the category of consultants that say noticed the problem 1-5 times in a year is 67% which is similar to the case of the Koye site, noticed 6-10 times in a year is 0% on both sites, noticed the problem more than 10 times in a year is also 0% at both sites, Not noticed but there is the problem is 33% at both sites and the problem does not exist is 0% and which is similar to the Koye site. The proportion of responses by the category of contractors that says noticed the problem 1-5 times in a year is 47% at Arabsa and 43% at the Koye site, noticed 6-10 times in a year is 16% at Arabsa and 12% at Koye site, noticed more than 10 times is 5% at Arabsa and 0% at Koye site, not noticed but there is the problem is 22% at Arabsa and 35% at Koye site and the problem does not exist is 9% at Arabsa and 10% at Koye site. The proportion of responses by the category of contractors that says noticed the problem 1-5 times in a year is 13% at Arabsa and 33% at the Koye site, noticed 6-10 times in a year is 0% at Arabsa and 0% at the Koye site, noticed >10 times also is 0% and which is similar to Koye site, not noticed but there is the problem is 35% at Arabsa and 63% at Koye site and the problem does not exist is 25% and 11% at Koye site. The proportion of responses by the category of contractors at Arabsa, that says noticed the problem 1-5 times in a year is 42%, and 36% at the Koye site, noticed 6-10 times in a year is 18% and 17% at Koye site, noticed >10 times is 3% at Arabsa and 3% at the Koye site, not noticed but there is the problem is 33% and 36% at Koye site and the problem does not exist is 3% and 8% at Koye site.

In general, 44% of the total 102 respondents have noticed 1 to 5 times in a year the problem of not delivering material according to the schedule on the Arabsa site, and 42% of 149 on the Koye site

4.2.4 The Frequency of the Malpractices in the Payment Execution

The frequency of malpractices in Payment execution (both sites)

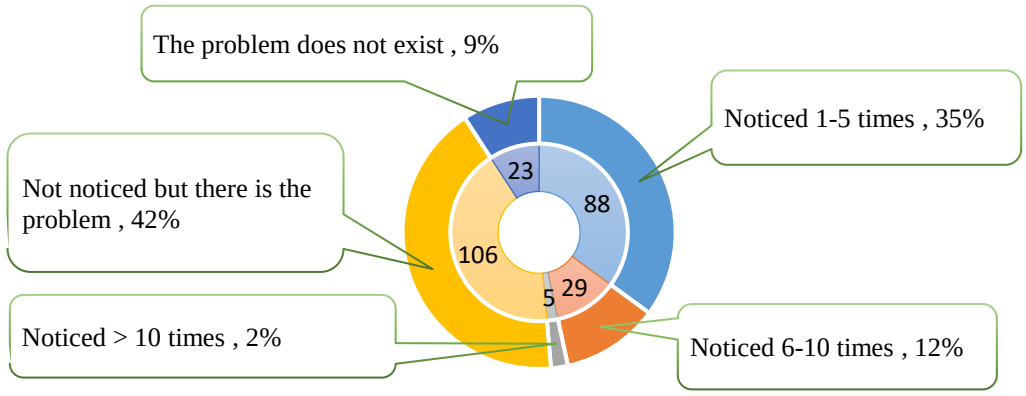

Figure 4-24: The frequency of malpractice in the payment execution (both sites)

As can be seen in Figure 4-24, out of 251 respondents, 88(35%) have noticed not paying as per the contract about 1 to 5 times in a year, 23(9%) said the problem does not exist, 106(42%) have agreed that the problem exists, but they have not noticed, 29(12%) notice 6 to 10 times in a year and 5(2%) noticed more than 10 times.

The frequency of malpractices in Payment execution (Arabsa site)

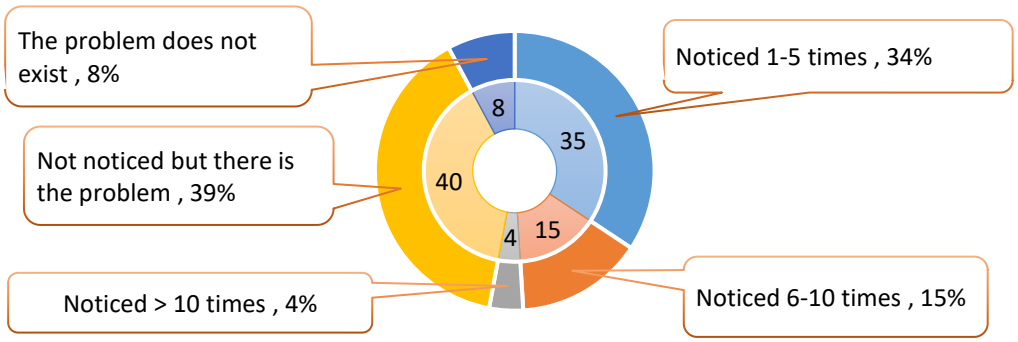

Figure 4-25: The frequency of malpractice in the payment execution (Arabsa)

According to the data in Figure 4-25, out of 102 respondents, 35(34%) have noticed not paying as per the contract about 1 to 5 times in a year, 8(8%) said the problem does not exist, 40(39%) have agreed that the problem exists, but they have not noticed, 15(15%) notice 6 to 10 times in a year and 4(4%) noticed more than 10 times.

Intra-case Comparison Based on the Above Available Data (Arabsa site)

Table 4-28: Intra-case comparison in the frequency of the malpractice (Arabsa)

Category	Consultants		Contractors		Project office		MSE	
Response	Response number	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	3	50%	20	36%	1	13%	11	33%
Noticed 6-10 times	0	0%	8	15%	0	0%	7	21%
Noticed > 10 times	0	0%	3	5%	0	0%	1	3%
Not noticed but there is the problem	3	50%	20	36%	4	50%	13	39%
The problem does not exist	0	0%	4	7%	3	38%	1	3%
Total	6	100%	55	100%	8	100%	33	100%

Out of the respondents that have noticed not paying as per the contract 1 to 5 times in a year, the category of consultants is the first covering 3(50%) of 6 respondents, category of contractors is second covering 20(36%) of 55 respondents, the category of MSE is the third covering 11(33%) of 33 respondents and the category of project office is fourth by covering 1(13%) of 8 respondents. Among the respondents that have been exposed 6 to 10 times in a year, the category of MSE is the first covering 7(21%) of 33 respondents, category of contractors is second covering 15(8%) of 55 respondents and the category of consultants and project office did say nothing about the issue. Among the respondents that have been exposed more than 10 times in a year, category of contractors is the first covering 5(5%) of 55, the category of MSE is the second covering 1(3%) of 33 respondents, the category of consultants and project office did say nothing. Among the respondents who stated that not noticed but there is the problem, the categories of consultants and project office are the first covering 3(50%) of 6 respondents and 4(59%) of 8 respondents respectively, the category of MSE is the second covering 13(39%) of 33 respondents and the category of contractors is the third covering 20(36%) of 55 respondents. Out of the respondents who stated that the problem does not exist, the category of project office is the first covering 3(38%) of 8 respondents, the category of contractors is the second covering 4(7%) of 55 respondents, the category of MSE is the third covering 1(3%) of 33 respondents and the category of consultants did say nothing about this issue.

The frequency of malpractices in Payment execution (Koye site)

As can be seen in Figure 4-26, out of 149 respondents, 53(36%) have noticed not paying as per the contract about 1 to 5 times in a year, 15(10%) said the problem does not exist,

66(44%) have agreed that the problem exists, but they have not noticed and 14(9%) notice 6 to 10 times in a year.

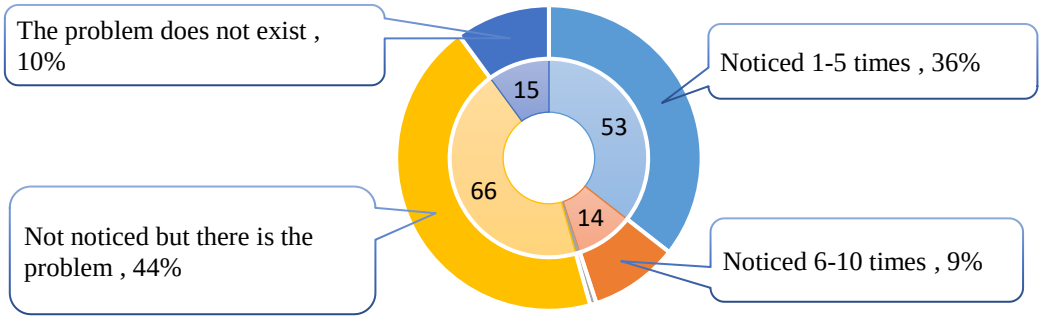

Figure 4-26: The frequency of malpractice in the payment execution (Koye Feche)

Intra-case Comparison Based on the Above Available Data (Koye site)

Based on Table 4-29, out of the respondents that have noticed not paying as per the contract 1 to 5 times in a year, the category of consultants is the first covering 3(50%) of 6 respondents, the category of project office is second by covering 4(44%) of 9 respondents, the category of contractors is third covering 37(38%) of 98 respondents and the category of MSE is the fourth covering 9(25%) of 36 respondents. Among the respondents that have noticed 6 to 10 times in a year, the category of MSE is the first covering 4(11%) of 36 respondents, category of contractors is second covering 10(10%) of 98 respondents and the category of consultants and project office did say nothing about the issue.

The category of contractors is the only one that has noticed more than 10 times in a year covering 1(1%) of 98 and the other categories did say nothing regarding this issue. Among the respondents who stated that not notice but there was a problem, the category of MSE is the first covering 20(56%) of 36 respondents, the category of consultants is the second covering 3(50%) of 6 respondents and the category of contractors is the third covering 40(41%) of 98 respondents and the category of the project office is the fourth covering 3(33%) of 9 respondents. Out of the respondents who stated that the problem does not exist, the category of the project office is the first covering 2(22%) of 9 respondents, the category of contractors is the second covering 10(10%) of 98 respondents, the category of MSE is the third covering 3(8%) of 36 respondents and the category of consultants did say nothing about this issue.

Table 4-29: Intra-case comparison in the frequency of the malpractice (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Response number	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Noticed 1-5 times	3	50%	37	38%	4	44%	9	25%
Noticed 6-10 times	0	0%	10	10%	0	0%	4	11%
Noticed > 10 times	0	0%	1	1%	0	0%	0	0%
Not noticed but there is the problem	3	50%	40	41%	3	33%	20	56%
The problem does not exist	0	0%	10	10%	2	22%	3	8%
Total	6	100%	98	100%	9	100%	36	100%

Inter-case Comparison Based on the Above Available Data

According to Table 4-30, the proportion of responses by the category of consultants that say noticed the problem 1-5 times in a year is 50% which is similar to the case of the Koye site, which noticed 6-10 times in a year is 0% on both sites, noticed the problem more than 10 times in a year is also 0% at both sites, Not noticed but there is the problem is 50% at both sites and the problem does not exist is 0% and which is similar to the Koye site. The proportion of responses by the category of contractors that say noticed the problem 1-5 times in a year is 36% at Arabsa and 38% at the Koye site, noticed 6-10 times in a year is 15% at Arabsa and 10% at Koye site, noticed more than 10 times is 5% at Arabsa and 1% at Koye site, not noticed but there is the problem is 36% at Arabsa and 41% at Koye site and the problem does not exist is 7% at Arabsa and 10% at Koye site.

Table 4-30: Inter-case comparison in the frequency of malpractice in payment execution

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Noticed 1-5 times	3(50%)	3(50%)	20(36%)	37(38%)	1(13%)	4(44%)	11(33%)	9(25%)
Noticed 6-10 times	0	0	8(15%)	10(10%)	0	0	7(21%)	4(11%)
Noticed > 10 times	0	0	3(5%)	1(1%)	0	0	1(3%)	0
Not noticed but there is the problem	3(50%)	3(50%)	20(36%)	40(41%)	4(50%)	3(33%)	13(39%)	20(56%)
The problem does not exist	0	0	4(7%)	10(10%)	3(38%)	2(22%)	1(3%)	3(8%)
Total	6	6	55	98	8	9	33	36

The proportion of responses by the category of contractors that say noticed the problem 1-5 times in a year is 13% at Arabsa and 44% at the Koye site, noticed 6-10 times in a year 0% at Arabsa and 0% at the Koye site, noticed >10 times also is 0% and which is similar to Koye

site, not noticed but there is the problem is 50% at Arabsa and 33% at Koye site and the problem does not exist is 38% and 22% at Koye site. The proportion of responses by the category of contractors at Arabsa, that says noticed the problem 1-5 times in a year is 33%, and 25% at the Koye site, noticed 6-10 times in a year is 21%, and 11% at Koye site, noticed >10 times is 3% at Arabsa and 0% at the Koye site, not noticed but there is the problem is 39% and 56% at Koye site and the problem does not exist is 3% and 8% at Koye site.

In general, 34% of the total 102 respondents have noticed not paying as per the contract about 1 to 5 times a year on the Arabsa site, and 36% of 149 on the Koye site. According to the interviewees and the participants of the focus group discussions, these problems are relatively frequent, being observed at least 1-5 times per year.

4.3 The Impact of Malpractices on Housing Affordability

In this section, the third objective of the research is addressed and this objective is investigating the impact of the malpractices on housing affordability. According to the findings, involving inexperienced stakeholders, using substandard construction materials, not delivering construction materials according to the schedule, and executing payments untimely have an impact on the housing affordability of low-income groups.

How malpractices affect housing affordability (both sites)

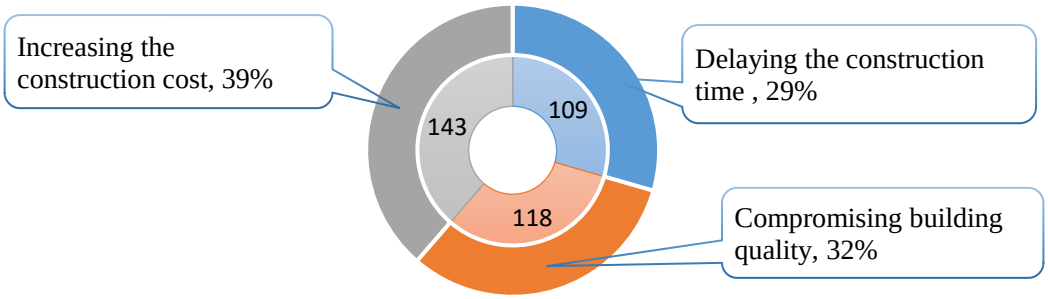

Figure 4-27: The way how malpractices affect housing affordability

According to the data in Figure 4-27, 143(39%) of the total 370 responses said that involving unskilled and inexperienced stakeholders in the government-sponsored condominium housing process, using poor quality construction materials, not providing construction materials on time, and not paying payments according to the schedule stipulated in the contract can affect housing affordability negatively by increasing construction cost, 118(32%) of 370 revealed the above problem can affect affordability negatively by delaying the construction time and

109(29%) of 370 said the above problem can affect affordability by compromising the quality of the construction.

How malpractices affect housing affordability (Arabsa site)

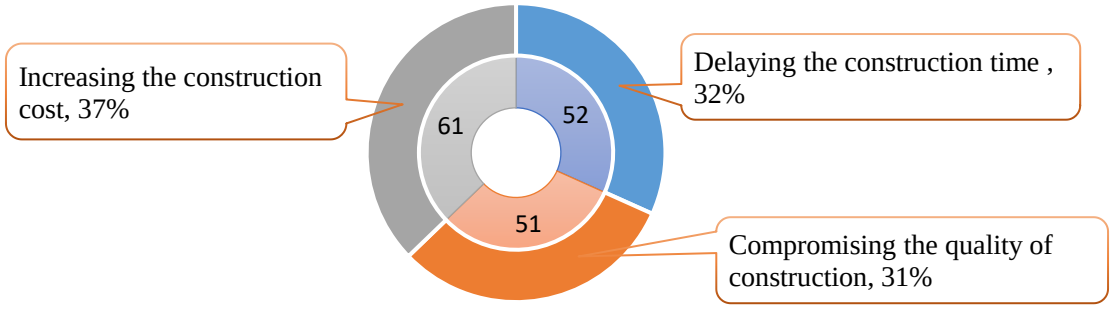

Figure 4-28: The way how malpractices affect housing affordability (Arabsa)

As can be seen in Figure 4-28, 61(37%) of the total 164 responses said that involving unskilled and inexperienced stakeholders in the government-sponsored condominium housing process, using poor quality construction materials, not providing construction materials on time, and not paying payments according to the schedule stipulated in the contract can affect housing affordability negatively by increasing construction cost, 52(32%) of 164 said the above problem can affect affordability negatively by delaying the construction time and 51(31%) of 164 said the above problem can affect affordability by affecting the quality of the construction.

Intra-case comparison based on the available data (Arabsa site)

Table 4-31: Intra-case comparison on the impacts of malpractices (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Response number	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Delaying the construction time	4	40%	32	33%	3	30%	13	28%
Compromising the quality of the construction	4	40%	28	29%	5	50%	14	30%
Increasing the construction cost	2	20%	37	38%	2	20%	20	43%
Total	10	100%	97	100%	10	100%	47	100%

Out of the responses that say involving unskilled and inexperienced stakeholders in the government-sponsored condominium housing process, using poor quality construction

materials, not providing construction materials on time, and not paying payments according to the schedule stipulated in the contract can affect housing affordability negatively by increasing construction cost, the category of MSE is the first by covering 20(43%) of 47 respondents, the category of contractors is the second by covering 37(38%) of 97 responses, the category of consultants and project office are third by covering 2(20%) of 10 responses each. Among the responses that say delaying construction time, the category of consultants is the first covering 4(40%) of 10 responses, the category of contractors is the second covering 32(33%) of 97 responses, the category of project office is the third by covering 3(30%) of 10 responses and the category of MSE is the fourth by covering 13(28%) of 47 responses. From the third response saying affecting the quality of construction, the category of project office is the first by covering 5(50%) of 10 responses, the category of consultants is the second by covering 4(40%) of 10 responses, the category of MSE is the third by covering 14(30%) of 47 responses and the category of contractors is the fourth by covering 28(29%) of 97 responses.

How malpractices affect housing affordability (Koye site)

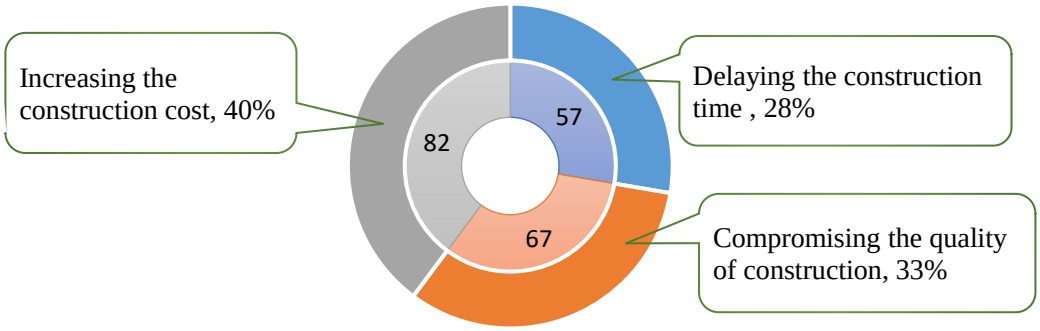

Figure 4-29: The way how malpractices affect housing affordability (Koye)

According to the data in Figure 4-29, 82(40%) of the total 206 responses said that involving unskilled and inexperienced stakeholders in the government-sponsored condominium housing process, using poor quality construction materials, not providing construction materials on time, and not paying payments according to the schedule stipulated in the contract can affect housing affordability negatively by increasing construction cost, 57(28%) of 206 said the above problem can affect affordability negatively by delaying the construction time and 67(33%) of 206 said the above problem can affect affordability by affecting the quality of the construction.

Intra-case Comparison Based on the Above Available Data (Koye site)

Table 4-32: Intra-case comparison on the impacts of malpractices on affordability (Koye)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Response number	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Delaying the construction time	4	40%	35	26%	4	31%	14	30%
Compromising the quality of the construction	4	40%	43	31%	7	54%	13	28%
Increasing the construction cost	2	20%	59	43%	2	15%	19	41%
Total	10	100%	137	100%	13	100%	46	100%

Based on Table 4-32, out of the responses that say involving unskilled and inexperienced stakeholders in the government-sponsored condominium housing process, using poor quality construction materials, not providing construction materials on time, and not paying payments according to the schedule stipulated in the contract can affect housing affordability negatively by increasing construction cost, the category of contractors is the first by covering 59(43%) of 137 responses, the category of MSE is the second by covering 19(41%) of 46 responses, the category of consultants is the third by covering 2(20%) of 10 responses and the category of project office is the fourth by covering 2(15%) of 13 responses. Among the responses that say delaying construction time, the category of consultants is the first covering 4(40%) of 10 responses, the category of project office is the second covering 4(31%) of 13 responses, the category of MSE is the third by covering 14(30%) of 46 responses and the category of contractors is the fourth by covering 35(26%) of 137 responses. From the third response saying compromising the quality of construction, the category of project office is the first by covering 7(54%) of 13 responses, the category of consultants is the second by covering 4(40%) of 10 responses, the category of contractors is the third by covering 43(31%) of 137 responses and the category of MSE is the fourth.

Inter-case Comparison Based on the Above Available Data

According to Table 4-33, the proportion of responses by the category of consultants that say delaying the construction is the impact of corruption baked problems on affordability is 40% at Arabsa which is similar to the case of the Koye site, compromising the quality of construction is 40% on both sites and increasing the construction cost is 20% at both sites. The proportion of responses by the category of contractors that say delaying the construction

is the impact of corruption baked problems on affordability is 33% at Arabsa and 26% at the Koye site, compromising the quality of construction is 29% at Arabsa and 31% at Koye site and increasing the construction cost is 38% at Arabsa and 43% at Koye site.

Table 4-33: Inter-case comparison on the impacts of malpractices on housing affordability

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Delaying the construction time	4(40%)	4(40%)	32(33%)	35(26%)	3(30%)	4(31%)	13(28%)	14(30%)
Compromising the quality of the construction	4(40%)	4(40%)	28(29%)	43(31%)	5(50%)	7(54%)	14(30%)	13(28%)
Increasing the construction cost	2(20%)	2(20%)	37(38%)	59(43%)	2(20%)	2(15%)	20(43%)	19(41%)
Total	10	10	97	137	10	13	47	46

The proportion of responses by the category of project office that says delaying the construction is the impact of corruption baked problems on affordability is 30% at Arabsa and 31% at the Koye site, compromising the quality of construction is 50% at Arabsa and 54% at Koye site and increasing the construction cost is 20% at Arabsa and 15% at Koye site. The proportion of responses by the category of MSE that says delaying the construction is the impact of corruption baked problems on affordability is 28% at Arabsa and 30% at the Koye site, compromising the quality of construction is 30% at Arabsa and 28% at Koye site and increasing the construction cost is 43% at Arabsa and 41% at Koye site.

Cost and Schedule Performance Index of the Case Sites for Triangulation

Cost performance index: Most projects prefer cost under run plus when CPI is greater than 1.00. It indicates better performance than expected. However, as depicted in Table 4-34, the CPI of Project 17 was 0.716, 0.837, and 0.557 in the years 2009, 2010, and 2011 E.C, respectively. According to Table 4-35, the CPI of blocks 148,156,160, 232 and 352 of the Arabsa project-7 in 2014 E.C. was 0.429, 0.39, 0.449, 0.388, and 0.398 respectively. As can be shown in Table 4-36, the CPI of blocks 616,641,610, 608, and 613 of the Koye project-11 in 2014 E.C. was 0.433, 0.496, 0.247, 0.336, and 0.248 respectively. This result implies that Project 17, the blocks from the Arabsa Project-7 and Koye project-11 had a rate of poor performance, utilized above the budget, and had a negative cost variance. According to the interview result, the project lost a lot of Birr because of contractual claims (extension of time with cost), weak cost planning, lack of monitoring of resources, and additional work.

Table 4-34: CPI and SPI of Koye Project 17

Performance Year	Planned Value (PV) in Birr	Work Performed	Earned Value (EV)	Actual Cost (AC) in Birr	SPI = EV/PV	CPI = EV/AC
2009	253638231.8	28.36%	92483746.11	129219721	0.365	0.716
2010	962519899.3	35%	168440982.4	201219721.9	0.175	0.837
2011	76836833.94	44%	12678077.6	22744013.92	0.165	0.557

(Source: Data from the report of the Koye project site)

Table 4-35: CPI and SPI of Building Blocks at Arabsa Project-7

Blocks	Performance Year	Planned Value (PV) in Birr	Work Performed	Earned Value (EV)	Actual Cost (AC) in Birr	SPI = EV/PV	CPI = EV/AC
148	2014	16127643.16	99.87%	4026669.306	9378597.833	0.250	0.429
156	2014	16127643.16	98.91%	3987962.962	10213202.92	0.247	0.390
160	2014	15899168.3	98.91%	4717760.21	10505827.73	0.297	0.449
232	2014	16257179.84	99.10%	4027716.305	10382450.76	0.248	0.388
352	2014	10751762.11	97.38%	3926274.727	9875323.63	0.365	0.398

(Source: Data from the report of the Arabsa project site)

Schedule performance index: SPI is accepted by most projects when more work is completed than was planned. If SPI is greater than 1.00 expected performance is better. However, as indicated in Table 4-34 SPI for Project 17 for the years 2009, 2010, and the first quarter of 2011 E.C. were 0.365, 0.175, and 0.165, respectively. According to Table 4-35, the CPI of blocks 148,156,160, 232 and 352 of the Arabsa project-7 in 2014 E.C. was 0.250, 0.247, 0.297, 0.248 and 0.365 respectively. As can be shown in Table 4-36, the CPI of blocks 616,641,610, 608, and 613 of the Koye project-11 in 2014 E.C. was 0.433, 0.496, 0.247, 0.336, and 0.248 respectively. This implies that Project 17 had a rate of poor performance and only progressed at 37%, 18%, and 17% of the rate planned in the stated years respectively. The blocks at Arabsa had a rate of poor performance and progressed at 25%, 25%, 30%, 25%, and 37% respectively. The blocks at Koye project-11 also had a rate of poor performance and progressed at 43%, 50%, 25%, 34%, and 25% respectively. This indicates that less work was completed than was planned. The interview result also shows because of time overrun, the client incurred a high cost of payment from the head office to the contractor due to late procurement of material. Contractors incurred overhead costs, and cost of extension of performance due to delay of construction.

Table 4-36: CPI and SPI of Building Blocks at Koye Project-11

Blocks	Performance Year	Planned Value (PV) in Birr	Work Performed	Earned Value (EV)	Actual Cost (AC) in Birr	SPI = EV/PV	CPI = EV/AC
616	2014	9460709.333	99.05%	3547766	8199717.17	0.375	0.433
641	2014	18966709.81	99.00%	4064294.96	8199717.17	0.214	0.496
610	2014	18815583.69	99.20%	4031910.79	16353633.9	0.214	0.247
608	2014	18815583.69	99.50%	4031910.79	12013852.78	0.214	0.336
613	2014	22258835.62	99.05%	4769750.49	16537978.01	0.286	0.248

(Source: Data from report of Koye project site)

The work performance shown in Table 4-34 is taken from the data of years 2009, 2010, and 2011 E.C. Therefore, the CPI and SPI are calculated based on these data. The work performance shown in Tables 4-35 & 36 is taken from the data of the year 2014 E.C. Therefore, the CPI and SPI are calculated based on these data.

Housing Payment to Income Ratio of Residents for Triangulation

In this section, some quantitative data have been collected from the condominium housing beneficiaries who were available at the time of this data collection. The main reason why this analysis is needed is to verify the truthfulness of the answers given by all four categories when they were asked about the affordability of the government-sponsored condominium. The summary of their response is presented in the table below.

Table 4-37: The percentage of monthly housing payments from monthly income

Name	Block no.	Type	Sq. meter	Total amount	Round	The monthly income of the residents	The monthly payment for housing	Percent of income to pay
R-1	695/69	3BR	115.4	520,604.02	13th	8900	5000	56%
R-2	646/18	1BR	57.1	257,595.23	13th	4500	2477	55%
R-3	712/49	1BR	59.28	267,428.09	13th	6700	2,572	38%
R-4	544/40	1BR	63.13	504,863.20	14th	7500	4855	65%
R-5	604/56	2BR	95.01	428,618.61	13th	7600	4122	54%
R-6	549/18	2BR	91.34	412,062.14	13th	9000	3963	44%

According to the data shown in Table 4-37 and Figure 4-30, the interviewees could not even meet the 30% agreed upon by many studies. Based on the State of Addis Ababa 2017 report prepared by UN-Habitat (2017), the affordability scale is presented starting from severe up to

excellent. Among the interviewees, 4 out of 6 are paying more than 50% of their monthly income which is severe according to the given affordability scale.

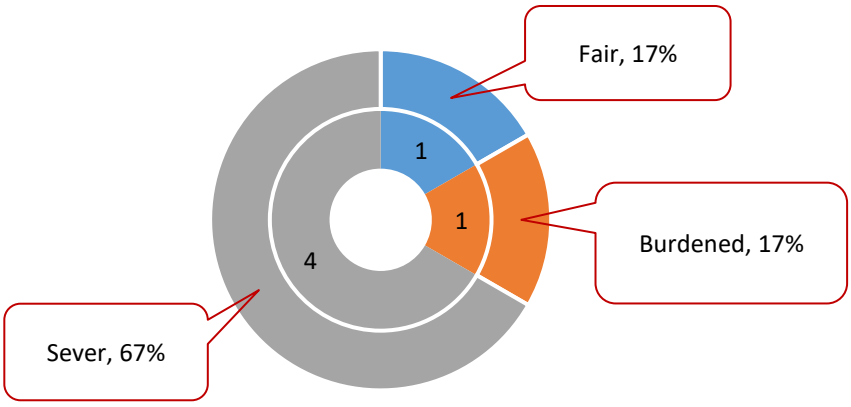

Figure 4-30: The degree of affordability

Result from interview regarding the impact of malpractices on housing affordability

Figure 4-31 sheds light on how malpractices significantly impact housing affordability. Insights from 10 interviewees across both sites reveal three key concerns: Increased construction costs (38%), compromised construction quality (33%), and construction delays (29%).

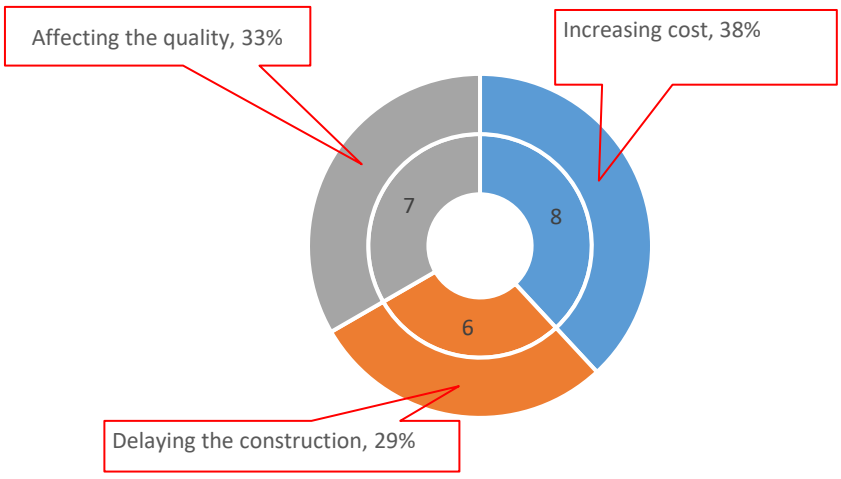

Figure 4-31: The impact of malpractices on housing affordability

Table 4-38 reveals a trend in how malpractices impact housing affordability. Interviewees in Arabsa identified increased construction costs as the most significant impact of malpractices.

In contrast, interviewees at Koye reported that construction delays and compromised quality are more concerning.

Table 4-38: Inter-case comparison on the impact of malpractices on affordability

Impact	Arabsa	Koye
Increasing cost	5(50%)	3(27%)
Delaying the construction	2(20%)	4(36%)
Affecting the quality	3(30%)	4(36)%
Total	10(100%)	11(100%)

Results from focus group discussions regarding the impact of malpractices on housing affordability

Figure 4-32 reveals how focus group participants perceive malpractices impacting housing affordability. Cost Increases (44%) emerged as the most concerning consequence. Construction delays and reduced quality (28%). Nearly an equal percentage of responses indicated that malpractices lead to project delays and quality problems, further impacting affordability.

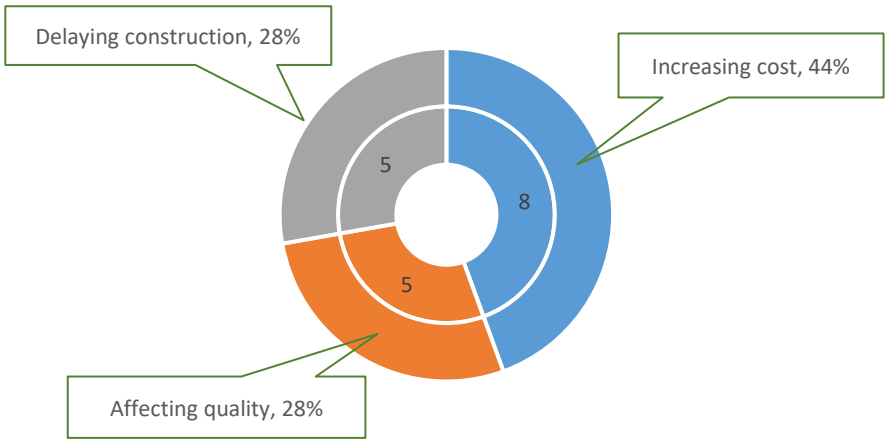

Figure 4-32: Impact of malpractices on affordability from focus group discussions

Focus group data from Table 4-39 highlights a disparity in how malpractices impact housing affordability between Arabsa and Koye. At Arabsa, cost increases emerged as the primary concern regarding malpractices. In contrast, Koye witnessed a higher focus on malpractices causing delays and reduced quality in construction.

Table 4-39: Inter-case comparison on malpractices from focus group discussions

Impact	Arabsa	Koye
Increasing cost	4(57%)	4(36%)
Delaying the construction	1(14%)	4(36%)
Affecting the quality	2(29%)	3(37%)
Total	7(100%)	11(100%)

4.4 The Commitment of Stakeholders

In this section, the fourth objective of the research is addressed and this objective is examining the commitment of the stakeholders in the case project sites. According to the findings, the effort of stakeholders in the case site for the success of the projects is weak.

According to the data seen in Figure 4-33, for the question of how you see the effort in your field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, within budget, and with quality, 203(81%) of the total 251 respondents said that it is weak, 45(18%) said that the effort is medium and 3(1%) show that the effort is strong.

The commitment of stakeholders in government-sponsored housing projects for the success of the projects (both sites)

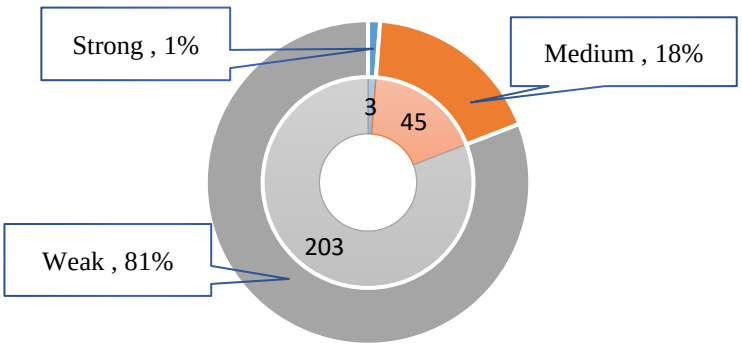

Figure 4-33: The commitment of the stakeholders (both sites)

The commitment of stakeholders in government-sponsored housing projects for the success of the projects (Arabsa site)

As can be seen in Figure 4-34, for the question of how you see the effort in your field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, budget and quality, 83(81%) of the total 102 respondents said that it is weak and 19(19%) said that the effort is medium.

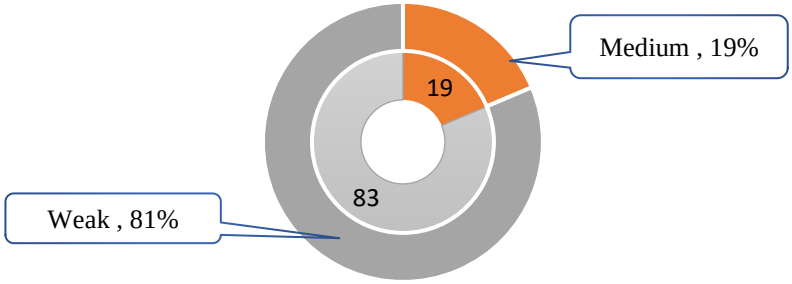

Figure 4-34: The commitment of the stakeholders (Arabsa)

Intra-case Comparison Based on the Above Available Data (Arabsa site)

Out of the respondents said the effort in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, budget and quality is weak, the category of project office is the first covering 7(88%) of 8 respondents, the category of contractors is the second covering 46(84%) of 55 respondents, the category of consultants is the third covering 5(83%) of 6 respondents and the category of MSE is the fourth covering 25(76%) of 33 respondents.

Table 4-40: Intra-case comparison of the commitment of the stakeholders (Arabsa)

Category	Consultant		Contractors		Project Office		MSEs	
Response	Participants	Share%	Participants	Share%	Participants	Share%	Participants	Share%
Strong	0	0%	0	0%	0	0%	0	0%
Medium	1	17%	9	16%	1	13%	8	24%
Weak	5	83%	46	84%	7	88%	25	76%
Total	6	100%	55	100%	8	100%	33	100%

Out of the respondents said the effort in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, budget and quality is medium, the category of MSE is the first covering 8(24%) of 33 respondents, the category of consultants is the second covering 1(17%) of 6 respondents, the category of contractors is the third covering 9(16%) of 55 respondents and the category of the project office is the fourth covering 25(76%) of 33 respondents. All of the categories did not say the effort of the stakeholder is strong.

The commitment of stakeholders in government-sponsored housing projects for the success of the projects (Koye site)

As can be seen in figure 4-35, for the question of how you see the effort in your field of work to transfer the government-sponsored condominium housing to the residents at an affordable

price, completed on time, budget and quality, 120(81%) of the total 149 respondents said that the effort is weak, 26(17%) said that the effort is medium and 3(2%) said that the effort is strong.

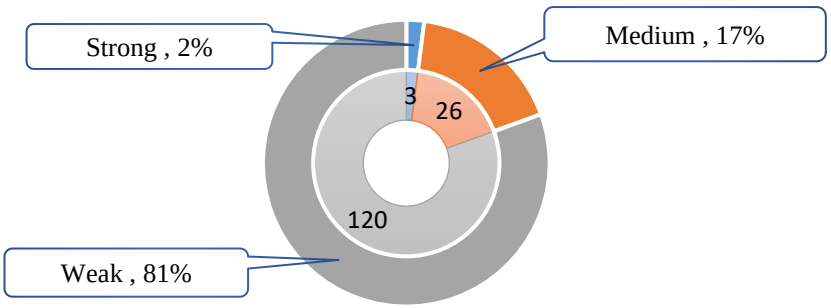

Figure 4-35: The commitment of the stakeholders (Koye)

Intra-case Comparison Based on the Above Available Data (Koye site)

Table 4-41: Intra-case comparison of the commitment of the stakeholders (Koye)

Category	Consultants		Contractors		Project Office		MSEs	
Response	Participants	Share %	Participants	Share %	Participants	Share %	Participants	Share %
Strong	0	0%	0	0%	2	22%	1	3%
Medium	1	17%	16	16%	2	22%	7	19%
Weak	5	83%	82	84%	5	56%	28	78%
Total	6	100%	98	100%	9	100%	36	100%

Out of the respondents said the effort in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, budget and quality, is weak, the category of contractors is the first covering 82(84%) of 98 respondents, the category of consultants is the second covering 5(83%) of 6 respondents, the category of MSE is the third covering 28(78%) of 36 respondents and the category of project office is the fourth covering 5(56%) of 9 respondents. Out of the respondents said the effort in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, budget and quality is medium, the category of Project office is the first covering 2(22%) of 9 respondents, the category of MSE is the second covering 7(19%) of 36 respondents, the category of consultants is the third covering 1(17%) of 6 respondents and the category of contractors is the fourth covering 16(16%) of 98 respondents. Out of the respondents said the effort in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, budget and quality is strong, the category of the project office is the

first covering 2(22%) of 9 respondents, the category of MSE is the second covering 1(3%) of 36 respondents.

Inter-case Comparison Based on the Above Available Data

The proportion of respondents in the category of consultants reveals that the effort in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, within budget, and quality is weak is 83% at Arabsa site and similar at Koye site, the medium is 17% at Arabsa site and which is similar at Koye site. Consultants at both sites did not say the effort is strong.

Table 4-42: Inter-case comparison of the commitment of the stakeholders

Category	Consultant		Contractors		Project Office		MSEs	
Response	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye	Arabsa	Koye
Strong	0	0	0	0	0	2(22%)	0	1(3%)
Medium	1(17%)	1(17%)	9(16%)	16(16%)	1(13%)	2(22%)	8(24%)	7(19%)
Weak	5(83%)	5(83%)	46(84%)	82(84%)	7(88%)	5(56%)	25(76%)	28(78%)
Total	6	6	55	98	8	9	33	36

The proportion of respondents in the category of contractors that says weak is 84% at the Arabsa site and similar at the Koye site too, medium is 16% at the Arabsa site which is similar at the Koye site too. contractors at both sites did not say the effort was strong. The proportion of respondents in the category of project office that says weak is 88% at the Arabsa site and 56% at the Koye site, medium is 13% at the Arabsa site and 22% at the Koye site and strong is 0% at the Arabsa site and 22% at Koye site. The proportion of respondents in the category of MSE that says weak is 76% at the Arabsa site and 78% at the Koye site, medium is 24% at the Arabsa site and 19% at the Koye site and strong is 0% at the Arabsa site and 3% at Koye site.

Result from the interview regarding the commitment of stakeholders

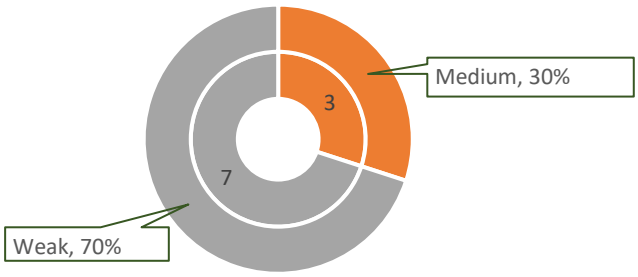

Figure 4-36: The commitment of stakeholders from interviews

Figure 4-36 paints a concerning picture regarding stakeholder commitment in government-sponsored housing projects at Koye and Arabsa. A large majority (70%) of responses from the 10 interviewees indicated weak commitment from stakeholders. The remaining 30% only perceived a moderate level of commitment.

Table 4-43 reveals a contrasting perception of stakeholder commitment between Koye and Arabsa in government-sponsored housing projects. A higher number of responses indicated a medium level of commitment from stakeholders in Koye than in Arabsa. Conversely, a greater number of responses in Arabsa pointed towards weak commitment from stakeholders than in Koye

Table 4-43: Inter-case comparison on the commitment of stakeholders from the interviews

Degree of commitment	Arabsa	Koye
Strong	0	0
Medium	1(20%)	2(40%)
Weak	4(80%)	3(60%)
Total	5(100%)	5(100%)

Results from the focus group discussion regarding the commitment of stakeholders

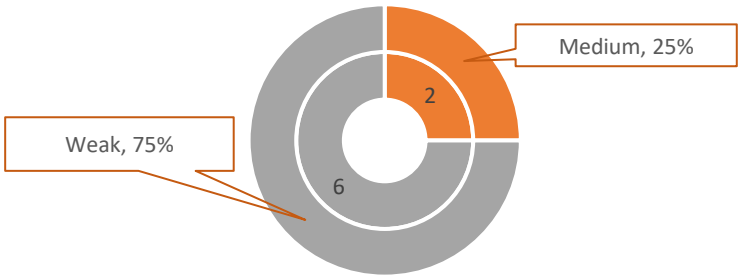

Figure 4-37: Commitment of stakeholders from focus group discussions

Figure 4-37 paints a concerning picture regarding stakeholder commitment in government-sponsored housing projects at Koye and Arabsa. A large majority (75%) of responses from the 10 interviewees indicated weak commitment from stakeholders. The remaining 25% only perceived a moderate level of commitment.

Data from Table 4-44 indicates a similar perception of stakeholder commitment in Koye and Arabsa for government-sponsored housing projects. Interviewees at both sites appeared to

split evenly in their responses, with an equal number reporting medium and weak commitment levels

Table 4-44: The Commitment of Stakeholders

Degree of Commitment	Arabsa	Koye
Strong	0	0
Medium	1(25%)	1(25%)
Weak	3(75%)	3(75%)
Total	4(100%)	4(100%)

4.5 **Summary of the Key Findings**

Most respondents have said that the selection process of actors participating in the production of condominium housing process is not based on only the skills and experience required by the work. Among the category of respondents who gave the above response, the category of consultants at both sites has the highest proportion. When such a problem occurs, the number of respondents who have noticed it at least 1 to 5 times in a year is higher than the others, and the proportion is higher at the Arabsa site than at Koye. More than three-fourths of the respondents in both sites have said that yes, it is observed that substandard construction materials whether produced by MSEs or provided by contractors and the employer's office are used. While there are respondents who experience this problem several times a year, the number of people who experience it 1 to 5 times a year is much higher.

Very few of the respondents at both sites say that the construction materials produced by MSEs or supplied by contractors and the employer's office are being delivered according to the given schedule but most of them do not agree with this. Although there are respondents who have experienced such a problem more than 10 times, the number of respondents who have encountered 1 to 5 times is greater. A high number of respondents have said that the payment requests by contractors and MSEs are not being paid on time according to the contract all the time when compared to those who say yes, it is paid. The number of respondents who say that we have not encountered the problem is large, and the number of people who say that we have encountered it 1 to 5 times is the next largest.

Some of the respondents said that involving unskilled and inexperienced stakeholders in the production of the government-sponsored condominium housing process, using poor quality construction materials, not providing construction materials on time, and not executing

payments according to the schedule stipulated in the contract can affect housing affordability negatively by increasing construction cost and some other said affects construction quality and leads to project delay. The average cost and schedule performance index of the projects indicate that there are high-cost overruns and time delays. According to the interview conducted with a few residents who started living in their house, they could not even meet the 30% income-to-pay ratio, agreed upon by many studies. 67% of the interviewees paid more than 50% of their monthly income which is severe according to the given affordability scale.

The number of respondents who say that the effort of stakeholders to transfer government-sponsored-condominium housing at an affordable price to the residents is weak is high and the number of people who say that it is medium is the second at both sites.

In a nutshell, not selecting stakeholders/actors based on skill and experience, using substandard construction materials, not delivering construction materials according to the schedule, and not executing payments according to the contract are the malpractices in government-sponsored housing projects in the case sites. All the above problems are noticed frequently in a year. The respondents believed that malpractices inflate the construction cost, delay the construction time, and compromise the quality of the construction. The findings from interviews, focus group discussions, observations, and performance index of the projects in the case sites confirm that the compromised quality, inflated cost and delayed construction time are the perceived problems. Finally, most of the stakeholders in the case sites are not committed to achieving the project's intended goal.

4.6 **Discussion**

4.6.1. Types of Malpractices

This study identified four key areas of malpractice in government-sponsored housing projects: 1) unqualified personnel selection, where actors and stakeholders are chosen without regard for necessary skills and experience. 2) Substandard construction materials being used, compromising the quality and safety of the projects. 3) Delays in construction material delivery, causing project disruptions and setbacks. 4) Failure to fulfill contractual obligations by not processing payments for all categories as agreed.

Unqualified Personnel Selection: The data confirms a lack of focus on skills and experience during stakeholder selection, as highlighted by informant interviews, focus groups, and FEACC (2016). This, as Anindito (2023) suggests, allows for malpractice in areas where evaluation is difficult, potentially leading to substandard construction like the leaking roofs and flooding basements reported by residents. The report by AAHDA (2020) suggests that some project officials prioritize personal gain over project success. This aligns with the findings of Wu et al. (2019), Turner (2018), and Morrow (2021) on construction fraud and misappropriation of funds. However, this research has more specifically focused on the malpractices that are very common in the production of government-sponsored housing projects.

Substandard Construction Materials: FEACC (2019) identifies the use of poor-quality materials as a major malpractice. This aligns with Bezabih's (2017) findings on bribes for low-quality supplies. The resident complaints about leaking roofs and flooding further support this issue. These practices compromise project quality and safety, potentially putting residents at risk. Additionally, observation, interview, and focus group discussion results clearly show a trend of using substandard materials in the case sites.

Delays in Construction Material Delivery: The findings of the anti-corruption liaison office posted on the notice board of project offices exemplify delays in material delivery, a problem also identified by FEACC (2019). This disrupts project timelines, as noted by Techane (2018), and can lead to cost overruns due to idle labor and potential weather damage. Furthermore, this is substantiated by findings from the interview and focus group discussion.

Failure to Fulfill Payment Timely: FEACC (2019) and the findings posted by the anti-corruption liaison office highlight the malpractice of delayed payments to contractors. This, as the Construction Pvt. Association points out, can lead to increased material costs due to inflation. Delayed payments can also demotivate contractors and potentially contribute to project delays, as suggested by Techane (2018). During the interview, a highly experienced contractor with nearly 20 years in the field stated that she occasionally provides financial incentives to expedite payments. She explained that this practice is necessary to retain her workforce.

4.6.2. *Frequency of the malpractices*

In general, according to the survey, interview, and focus group discussion results**,** using unqualified workers and substandard construction materials, not delivering materials according to schedule, and not executing payments on time are common in both sites and the stakeholders encounter the abovementioned problems at least 1-5 times a year. This implies there is a systemic problem of malpractices within the government-sponsored housing projects in Bole Arabsa and Koye Feche project sites. The number suggests these malpractices are not isolated incidents but occur frequently, likely hindering project progress significantly and these issues are not unique to one site but plague both project sites.

4.6.3. The impact of malpractices on affordability

This research delves into a gap in understanding how malpractices impact affordability in government housing projects. The study identifies four key malpractices forming a detrimental "Malpractice-Affordability Chain": 1) involving unskilled professionals, leading to poor construction and compromising quality. 2) Utilizing substandard materials that decrease initial costs but shorten building lifespan and increase future maintenance expenses. 3) Delays in material delivery that disrupt project timelines, causing cost overruns due to idle labor and potential weather damage. 4) Late payments to contractors, demotivating them and potentially disrupting material flow, further contributing to delays and potentially increasing costs.

This domino effect of malpractices ultimately undermines affordability. Unskilled personnel, poor materials, delays, and late payments all contribute to higher construction costs. Extended construction timelines result from these issues, further straining budgets. Most concerning, the use of substandard materials and potentially flawed construction reduces the quality and durability of the housing units, jeopardizing affordability in the long run. The rational theory explains how individuals, including contractors or officials, facing budget constraints may prioritize short-term cost reduction. This can lead to using cheaper, lower-quality materials or construction methods. While this increases profits initially, it reduces the quality and lifespan of housing units, impacting long-term affordability. Additionally, the theory sheds light on potential corruption or embezzlement (Turner, 2018; Morrow, 2021), which diverts resources away from building affordable units.

The quantitative data collected from project sites reinforces the negative impact. The low cost and schedule performance indexes (0.47 and 0.27 respectively) indicate substantial cost

overruns and time delays. Furthermore, the resident interviews reveal a stark reality. Many residents struggle to afford their new homes, with 67% paying more than 50% of their monthly income on housing. Ideally, housing costs shouldn't exceed 30% of income. This demonstrates that the current approach isn't delivering truly affordable housing for low and middle-income residents.

4.6.4. The commitment of stakeholders

On the survey result, the majority of the respondents have said that the effort of stakeholders in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, within budget, and with quality is weak. From the total number of respondents, only a few of them answered that it is a medium. Nobody dared to say that the effort of stakeholders in their field of work to transfer the government-sponsored condominium housing to the residents at an affordable price, completed on time, within budget, and with quality is strong. This concern is further substantiated by interviews and focus group discussions. Despite the efforts of different housing policies and strategies like IHDP, liaison offices of anti-corruption at every site, and some institutional frameworks, the effort of stakeholders in their field of work to complete on time, within budget, and with quality is weak. While Davoudi (2013) emphasizes stakeholder commitment to achieving sustainable and affordable housing through collaboration between residents, developers, policymakers, and community organizations, this study's findings appear to contradict it.

Chapter 4 precisely analyzed the data collected from the Bole Arabsa and Koye Feche projects, revealing the intricate ways malpractices hinder affordable housing for the low-income group. The findings discussed with the existing literature on malpractices and housing affordability paint a concerning picture of the challenges faced in achieving equitable housing access. Following this, Chapter 5 presents a series of recommendations for policymakers and stakeholders.

Chapter Five: Conclusion and Recommendations

Introduction

This chapter comprises a conclusion of the research study and recommendations that would help the concerned actors in the future, and the main points are re-stated in a new concise way that the readers need to remember.

5.1 Conclusion

The demand for affordable housing in Addis Ababa has steadily risen over time. Despite government efforts, including the establishment of the Inner City Housing Development Program (IHDP) in 2004, this need has remained largely unmet. This study investigated government-sponsored housing projects in Bole Arabsa and Koye Feche case sites, Addis Ababa, with a focus on malpractices and their impact on affordability. The findings reveal a concerning picture of widespread issues.

The investigation of this research uncovered widespread malpractices that threaten the affordability of government-sponsored housing projects in Bole Arabsa and Koye Feche project sites. Stakeholder selection often overlooked qualifications, particularly at Bole Arabsa and with consultants (Unqualified Personnel). The frequent use of substandard materials and delays in material delivery further plagued these projects, especially Bole Arabsa (Substandard Materials and Delays). To make matters worse, the stakeholders routinely faced late payments (Late Payments).

This study reveals a troubling prevalence of malpractices in Bole Arabsa and Koye Feche housing project sites. Stakeholders frequently encounter unqualified workers, substandard materials, delays in material delivery, and late payments (1-5 times/year). The frequency and presence across both sites suggest systemic problems that significantly hinder progress and achieving affordable housing.

This study exposes a critical link between widespread malpractices and unaffordable housing in Bole Arabsa and Koye Feche projects. The frequent use of unqualified workers, substandard materials, delays, and late payments (evident from the low cost and schedule performance index) significantly inflate construction costs, compromise quality, and extend

project timelines. This is confirmed by resident interviews, where many struggle to afford even the base cost of housing, highlighting a systemic issue that jeopardizes the very goal of providing affordable housing for low-income groups.

This study reveals a critical gap between expectations and reality. Residents overwhelmingly perceive a lack of effort from stakeholders to deliver affordable housing efficiently. Existing policies seem insufficient, highlighting a need for a more collaborative approach to achieve sustainable and affordable housing.

In conclusion, this study exposes malpractices as a systemic issue, not isolated incidents. These erode project efficiency, inflate costs, and ultimately render the goal of truly affordable housing unachievable. This highlights the need for a comprehensive approach that addresses these systemic problems to ensure that government-sponsored housing projects deliver on their promise.

5.2 Recommendations

This study identified widespread malpractices hindering the affordability of government-sponsored housing projects in Bole Arabsa and Koye Feche case sites, Addis Ababa. To address these issues and deliver on the promise of affordable housing, the following recommendations are critical.

5.2.1. Merit-Based Stakeholder Selection

- ✓ Implement a transparent and competitive selection process for all project stakeholders, including consultants, contractors, Micro and Small Enterprises (MSEs), and project office staff.
- ✓ Prioritize qualifications, experience, and track record of successful project delivery.
- ✓ Consider establishing an independent body to oversee the selection process and ensure fairness.

5.2.2. Enhanced Quality Control Measures

- ✓ Introduce robust quality control measures throughout the construction process to ensure the use of high-quality materials.
- ✓ Implement independent inspections at key stages of construction.
- ✓ Establish clear penalties for contractors who use substandard materials.

5.2.3. Improved Supply Chain Management

- ✓ Streamline procurement processes to ensure timely and efficient delivery of construction materials.
- ✓ Develop strong relationships with reliable suppliers.
- ✓ Explore prefabrication or modular construction techniques to potentially reduce on-site delays.

5.2.4. Streamlined Payment Processes

- ✓ Review and revise payment procedures to ensure timely payments to contractors and MSEs according to the contract terms.
- ✓ Explore alternative financing models that minimize delays in project disbursement.

5.2.5. Fostering Stakeholder Commitment

- ✓ Develop clear project goals and performance metrics focused on delivering affordable housing within budget and timeframe.
- ✓ Implement incentive structures that reward stakeholders for achieving project objectives related to cost, quality, and timeliness.
- ✓ Increase transparency and communication between all stakeholders throughout the project lifecycle.

By implementing these recommendations, policymakers and project managers can address the identified malpractices. This will ultimately lead to a significant improvement in the efficiency, affordability, and overall success of government-sponsored housing projects in Addis Ababa, ensuring residents have access to safe and affordable housing.

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References

American Bar Association. 2020. 13 Jan. Accessed June 20, 2024. https://www.americanbar.org/.

AAHDA. 2020. *The 2021 Fiscal Year Leader Plan.* Government report, Addis Ababa: Unpublished, 1-34.

African Union. 2021. *https://au.int/en.* Accessed 04 19, 2024. https://au.int/sites/default/files/treaties/36382-sl-African Union Convention On Preventing and Combating Corruption Status of Ratification.pdf.

Alemneh, T., and B. Tsegaye. 2017. "The Impact of Corruption on Construction Quality in Addis Ababa, Ethiopia." *International Journal of Civil Engineering and Technology* 8 (8): 1466-1474.

Anindito, Lakso. 2023. "Corruption and Infrastructure: Preliminary Study on Corruption Risks in Infrastructure Sector." *Basel Institute on Governance.* Accessed February 17, 2024. https://baselgovernance.org/sites/default/files/2023-06/Prelimenary-Study-Corruption-Risks-Infrastructure-Sector.pdf.

Berrone, P., M. Pretorius, and M. Roodt. 2018. "Partnership for integrating the corporate social responsibility of project stakeholders towards affordable housing development: A South African perspective." *Journal of Corporate Social Responsibility* 9 (2): 189-210.

Bezabih, Haregot Abreha. 2017. *Assessment of Corruption Challenges in Executing Construction Projects: The Case of Two Federal Housing Projects in Addis Ababa, Ethiopia.* Addis Ababa: Unpublished Master' thesis, Addis Ababa University.

Bratt, R., J. Zhao, and Y. Zhou. 2017. "Corruption and Social Housing Allocation in China." *Urban Studies* 54 (5): 1122-1141.

Braun, Virginia, and Victoria Clarke. 2006. "Using Thematic Analysis in Qualitative Research." *Qualitative Research in Psychology* 3 (2): 77-101.

Brenner, N., and N. Theodore. 2002. “Governing for equitable housing outcomes: A stakeholder approach.” *Urban Studies* 39 (11): 2133-2143.

Bryan A. , Garner, ed. 2009. *Black's Law Dictionary.* 9th ed. St. Paul: MN: West. https://www.thomsonreuters.com/en-us/help/westlaw-edge/secondary-sources/search-blacks-law-dictionary.html.

Chatterjee B., and Deb Roy D. 2020. “Corruption in urban development projects: A case study of India.” *Journal of Economic Development* 45 (2): 181-202.

Chen, J., J. K. Kung, and X. Liu. 2023. “Nepotism and Social Housing Allocation in China: Evidence from a Natural Experiment.” *Journal of Urban Economics* 130: 103452.

Chigbu, Uchendu Eugene . 2019. “Visually Hypothesising in Scientific Paper Writing: Confirming and Refuting Qualitative Research Hypotheses Using Diagrams.” *Chair of Land Management, Technical University of Munich* (MDPI) 1-18. https://doi.org/10.3390/publications7010022.

Cochran, William G. 1977. *Sampling Techniques.* 3rd ed. New York: John Wiley & Sons.

Cooper, Donald R., and Schindler Pamela S. 2014. *Business Research Methods.* 12th ed. New York: McGraw-Hill/Irwin.

Creswell, John W., and Creswell J. David. 2018. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches.* 5th ed. Los Angeles: Sage.

Davoudi, S. 2013. “The role of stakeholders in governance for sustainable housing.” *International Journal of Housing Policy* 13 (2): 143-160.

Degnet, A. 2014. “Urban Renewal, Housing and Social Exclusion in Addis Ababa, Ethiopia.” *International Journal of Urban and Regional Research* 38 (5): 1453-1470.

FDRE. 1995. *Constitution of the Federal Democratic Republic of Ethiopia.* Addis Ababa: National Legislative Bodies / National Authorities. Accessed February 5, 2024. https://www.refworld.org/docid/3ae6b5a84.html.

FDRE. 2015. *Etthiopia: Proclamation No. 456/2005, Federal Land Administration and Land Use.* Addis Ababa: National Legislative Bodies / National Authorities. Accessed February 5, 2024. https://www.refworld.org/docid/5a268b2b4.html.

FDRE. 2005. *Federal Democratic Republic of Ethiopia Urban Land Use and Administration Proclamation No. 456/2005.* Addis Ababa: Federal Negarit Gazeta.

FDRE. 2009. "Public Procurement and Property Administration Proclamation No. 649/2009." Addis Ababa.

FEACC. 2019. *Indicators of the Trend of Corruption in the Procurement Process.* Addis Ababa: Unpublished, 1-16.

—. 2016. *Study on Role of Consultants in Preventing Corruption in the Construction Sector.* Addis Ababa: Unpublished.

Field, Andy P. 2013. *Discovering Statistics Using IBM SPSS Statistics.* 4th ed. SAGE Publications Ltd.

Foundershield. 2023. *foundershield.com.* Accessed June 20, 2024. https://foundershield.com/coverage/.

Gan, Quan , and Robert J. Hill. 2009. "Measuring Housing Affordability: Looking Beyond the Median." *Journal of Housing Economics* 18 (2): 115–125. doi:10.1016/j.jhe.2009.04.003.

Gay, L. R., Geoffrey E. Mills, and Peter Airasian. 2012. *Educational Research : Competencies for Analysis and Applications.* 10th ed. New Jersey: Pearson Education, Inc.

Getahun, L. 2015. "Corruption and Urban Land Management in Ethiopia: The Case of Addis Ababa." *Journal of Public Administration and Governance* 5 (3): 191-204.

Glaeser, E. L., J. Gyourko, and M. Kahn. 2008. "Land-Use Regulations and Housing Affordability: Evidence from a Large Sample of Regulated Metropolitan Areas." *American Economic Review* 98 (5): 1753-1769.

Google Earth. "Location Map of Koye Feche.". 2023. 04 01. Accessed 04 24, 2024. https://earth.google.com/web/search/Koye+Fetche+Condominium,+Addis+Ababa/@8.89904803,38.82972059,2201.33592432a,5065.37645062d,35y,-0h,0t,0r/data=CigiJgokCVtf70cMLR1AEXcuZnbeCR1AGUC7HHuf-kJAIVM0uKSl8EJAOgMKATA.

Google Earth. "Location of Bole Arabsa.". 2022. 20 11. Accessed 04 24, 2024. https://earth.google.com/web/search/Arabsa+Condominium/@8.97840101,38.88969696,2321.07435363a,2616.80492517d,35y,-0h,0t,0r/data=Cn0aUxJNCiUweDE2NGI5YjIxNDYyMWFmNDU6MHgyNDhmYzhjZWU5MzlkNWMzGc4Nl2YE9SFAIc2MI3spckNAKhJBcmFic2EgQ29uZG9taW5pdW0YAiABIiYKJAkdhGJ.

Hailu, D. 2016. “Housing Development in Urban Ethiopia: A Review of Policy and Practice.” *Habitat International* 53 (3): 178-187.

Hair, Joseph F., Ronald L. Tatham, and William C. . 2019. *Multivariate Data Analysis.* 8th ed. New York, NY: Routledge.

Imbroscio, D. 2020. “Restoring Trust in Public Housing: A Framework for Addressing Resident Concerns.” *Housing Policy Debate* 31 (2): 330-347.

Kennedy, M., and C. Arthur. 2017. “An examination of the relationship between public housing demolition and neighborhood poverty rates.” *Journal of Urban Affairs* 39 (2): 230-248.

Krejcie, R. V., and D. W Morgan. 1970. “Determining sample size for research activities.” *Educational and Psychological Measurement* 30 (3): 607-610.

Krueger, Richard A., and John Casey. 2009. *Focus Groups: A Practical Guide for Applied Research.* 4th ed. Thousand Oaks, CA: Sage Publications.

Lee, S., and P. Marcuse. 2017. “The Impact of Regulatory Capture on Affordable Housing Production.” *Journal of the American Planning Association* 87 (2): 182-198.

Malathy, D. H. 2003. “Measuring housing affordability: A review of existing literature.” *Habitat International* 27 (4): 709-732.

Mekonnen, Y. 2007. *Assessment of Affordability of Condominium Houses: The Case of Addis Ababa Housing Construction Project Office at Tuludimtu.* Master's thesis, Addis Ababa University.

Missy, G. S., and R. N. Andrews. 2018. “The Affordable Housing Crisis in America: Causes and Solutions.” *Public Policy & Administration Research Consortium Journal* 8 (1): 78-93.

Mitra, S., and K. Sanyal. 2014. “Corruption and Housing Markets in Transition Economies.” *Journal of Urban Economics* 84 (1): 74-88.

Morrow, J. 2021. “The perils of public housing privatization: A case study of Chicago.” *Journal of Urban Affairs,* 43 (4): 599-618.

Muluye, Tarekegn A. 2016. *Assessment of Affordability of Condominium Housing for Low-income Households in Addis Ababa, Ethiopia.* Master's thesis, Addis Ababa University.

PMI. 2013. *A Guide to the Project Management Body of Knowledge (PMBOK® Guide).* 5th ed. Newtown Square, PA: Project Management Institute.

Popkin, S. J., R. J. Sokolowski, and A. D. Hutson. 2021. “The Long Shadow of Neglect: The Disrepair of Public Housing and the Spatial Concentration of Poverty.” *Housing Policy Debate* 32 (3): 544-565.

Project Management Institute. 2017. *A Guide to the Project Management Body of Knowledge (PMBOK Guide).* 6th ed. Newtown Square, PA: Project Management Institute.

Punch, Kenneth F. 2018. *Introduction to Social Research: Quantitative and Qualitative Approaches.* 4th ed. Thousand Oaks, CA.: Sage Publications.

Rahman , K. . 2018. “Overview of Corruption and Anti-Corruption in Ethiopia.” *Bergen: U4 Anti-Corruption Resource Centre* (Chr. Michelsen Institute (U4 Helpdesk Answer 2018:24)).

Rohe, W. M., and M. Farley. 2014. “Rethinking affordability: Toward a multidimensional framework.” *Housing Policy Debate* 25 (1): 1-32.

Ross, S. A. 1973. “The economic theory of agency: The principal's problem.” *The American Economic Review* 63 (2): 134-139.

Rubin, Herbert J., and Irene S. Rubin. 2012. *Qualitative Interviewing: The Art of Interviewing.* 3rd ed. Thousand Oaks, CA: Sage Publications.

Schuetz, R. 1972. “The effects of property taxes on urban renewal.” *Journal of Public Economics* 1 (1): 111-120.

Shamalla, J.T. 2018. *Asset Recovery Inter-Agency Network for Eastern Africa and Southern Africa.* Tukomeshe Ufisadi, Tuijenge Kenya, 7 June.

Sohn, J., R. Wadwha, and M. Williams. 2014. “The Price of Delays: How Land Use Review Processes Affect Housing Affordability.” *Journal of the American Planning Association* 84 (2): 119-139.

Sullivan, T. 2019. *Rethinking public housing: A history of policy and practice in the United States.* Routledge.

Techane, Tigist Tasew. 2018. *Causes and Effects of Delay in Construction of Condominium Houses in Addis Ababa: Project 17 Housing Development Construction in Focus.* Addis Ababa: Unpublished master's thesis, St. Mary’s University.

Tesfaye, M. 2018. “Construction Sector Malpractices and Challenges in Addis Ababa.” *Journal of Construction in Developing Economies* 6 (1).

Transparency International. 2023. *Corruption Perception Index 2022.* survey-based report, Transparency International.

Tsegaye, A., M. Tefera, and S. Tsegaye. 2017. “Assessing the Effectiveness of Housing Policy in the Integrated Housing Development Programme (IHDP) in Addis Ababa, Ethiopia.” *Ethiopian Journal of Environmental Studies and Management* 10 (1): 124-132.

Turner, M. A. . 2018. *Public Housing and the Politics of Race and Poverty in American Cities.* University of Chicago Press.

UN-Habitat. 2010. *Integrated Housing Development Programme in Ethiopia: Evaluation Report.* Nairobi: UN-Habitat.

UN-Habitat. 2017. *The State of Addis Ababa 2017: The Addis Ababa We Want.* Nairobi, Kenya: UN-Habitat.

UNODC. 2022. *https://www.unodc.org.* Accessed 04 19, 2024. https://www.unodc.org/unodc/en/corruption/country-profile/countryprofile.html#?CountryProfileDetails=%2Funodc%2Fcorruption%2Fcountry-profile%2Fprofiles%2Feth.html.

World Bank. 2013. *Improving Construction Contract Management in Developing Countries.* World Bank.

Wu, S., Wang, J., and X. Zhao. 2019. "The impact of government corruption on construction safety: Evidence from China." *Accident Analysis & Prevention* 129: 178-188.

Yin, Robert K. 2018. *Case Study Research: Design and Methods.* Sixth edition. Thousand Oaks, CA: Sage Publications.

Appendices

Appendix-1: Publishable Manuscript

Malpractices in Government-Sponsored Housing Projects and their Impact on Affordability: The Cases of Bole Arabsa and Koye Feche Project Sites in Addis Ababa, Ethiopia

By Mihretu Daniel Mekuria

Main Advisor: Biruk Kebede Geletu

Co-Advisor: Yonas Alemayehu Soressa

June 2024

Abstract*: Soaring housing costs in Addis Ababa continue to price out a large portion of residents, despite government efforts. Growing concerns suggest malpractices are worsening this affordability crisis. Therefore, this study investigates the prevalence of malpractices and how they impact affordability, focusing on Bole Arabsa and Koye Feche project sites. By employing a case study-mixed methods approach that combines in-depth interviews, surveys, focus group discussions, observation, and documents, the researcher collected and generated data from two hundred fifty-one respondents selected using a stratified random sampling technique. The data was analyzed using descriptive, thematic, and ratio analysis techniques and presented in tables, charts, and narration text. The findings reveal practices like the participation of unskilled and inexperienced stakeholders, poor-quality materials, material delivery delays, and late payments. This translates to extended construction times, compromised quality, and ultimately, rising housing costs. The ratio analysis further confirms these issues through low-performance index scores, highlighting significant delays and cost overruns. In conclusion, the study demonstrates how malpractices significantly inflate construction costs, hindering access to affordable housing for low-income groups. To address this, the researcher recommends merit-based stakeholder selection, enhanced quality control measures, improved supply chain management, streamlined payment processes, and fostering stakeholder commitment.*

Keywords: *Malpractices in housing construction, Government-sponsored Housing, housing Affordability, Addis Ababa*

Introduction: Finding affordable housing is a critical challenge in Addis Ababa, mirroring a global trend. Government-sponsored housing projects are vital initiatives aimed at addressing this issue. However, their effectiveness is often hampered by malpractices (Mitra & Sanyal, 2014). This research delves into the prevalence of such malpractices and their impact on housing affordability in these projects.

Existing research highlights various malpractices that undermine affordability. Construction fraud, for example, reduces the availability of affordable housing units (World Bank, 2013). This occurs through tactics like inflated costs, the use of substandard materials, and collusion between contractors and officials. Beneficiary manipulation is another concern, where unqualified individuals gain access through bribery or manipulating selection processes (Transparency International, 2023). Moreover, poor project management can lead to higher costs and longer wait times, discouraging potential beneficiaries (Chatterjee & Deb Roy, 2020). Previous studies, such as Alemneh & Tsegaye (2017), demonstrate the negative impact of malpractices on housing quality, cost, and accessibility. While valuable, further investigation is necessary. The specific consequences of malpractice can vary depending on the location and project context (reason 1). Additionally, the long-term effects on affordability require further exploration (reason 2). This research aims to analyze how malpractices in government-sponsored housing projects in Addis Ababa affect affordability. The study will focus on two specific case sites: Bole Arabsa and Koye Feche project sites.

Government-sponsored housing is crucial for improving affordability, particularly for low- and middle-income residents. However, despite efforts to address the housing shortage through condominium development (Hailu, 2016), affordability remains a significant obstacle (Muluye, 2016; Mekonnen, 2007). Concerns about malpractices within these projects further threaten their effectiveness.

This study investigates potential malpractices in three areas: stakeholder selection, construction materials, and material delivery/payments. It then analyzes how these malpractices translate to higher costs for residents. Finally, the study will examine how stakeholders can contribute to achieving transparency and accountability in these projects. Understanding the nature and impact of malpractices is essential for developing solutions that ensure government-sponsored housing projects achieve their intended goal of increasing housing affordability.

Literature Review - Malpractices Stifle Affordable Housing Goals: Government housing projects are a critical tool for providing affordable and safe living spaces for citizens. However, research across various countries exposes malpractices that significantly undermine these goals. One major area of concern is construction fraud (Wu et al., 2019). This involves using substandard materials, inflating costs, and employing poor construction practices. These tactics lead to housing units with shorter lifespans and lower quality. Residents in these projects face the burden of more frequent and expensive repairs due to the use of substandard materials (Popkin et al., 2021). Another detrimental malpractice is the misappropriation of funds (Turner, 2018; Morrow, 2021). This can involve embezzlement or diverting funds earmarked for maintenance or new projects. These actions leave fewer resources available for improvements and hinder the completion of new housing units.

Inefficient management and unequal access to housing also pose significant challenges. Bureaucratic hurdles, poor maintenance practices, and mismanagement of waitlists create barriers for those seeking affordable housing. Additionally, nepotism and bribery in tenant selection processes exclude deserving residents who genuinely need affordable housing options (Chen et al., 2023; Bratt et al., 2017). Beyond these direct malpractices, issues with regulations can also stifle affordable housing production. Regulatory capture, where regulatory agencies become unduly influenced by the industry they are supposed to regulate, can hinder affordable housing development (Lee & Marcuse, 2017). Additionally, restrictive zoning practices and lengthy land-use review processes can significantly increase housing costs and discourage developers from building new affordable units (Glaeser et al., 2008; Sohn et al., 2014).

These malpractices create a domino effect that ultimately undermines the affordability of government housing projects. Construction fraud and misappropriation of funds lead to a reduced supply of affordable units, driving up demand and private market rents (Wu et al., 2019; Turner, 2018; Kennedy & Arthur, 2017). Residents face increased costs not only from repairs but also from potential health issues due to poor living conditions. Perhaps the most damaging consequence is the erosion of public trust. When malpractices are exposed, public confidence in the effectiveness of government housing programs is shaken (Sullivan, 2019; Imbroscio, 2020). This discourages potential funding and participation, hindering the ability of these programs to deliver on their promise of affordable housing.

Addressing these malpractices is crucial to ensure that government housing programs function effectively and achieve their intended goal of increasing affordability and access to safe living spaces.

Research Methodology: Case Study Area Description: The case study areas, Bole Arabsa and Koye Feche 20/80 condominium developments were chosen based on three criteria: being the largest housing projects under IHDP since 2014, having prior indications of corruption (delays, quality problems, cost overruns), and being the subject of previous research on corruption in housing. Koye Feche is located in the southeast part of the city of Addis Ababa, specifically located in the Akaki-Kality sub-city: woreda 09 and 11. The second case site, the Bole Arabsa condominium site, is located in the Lemi Kora sub-city, Addis Ababa in the Northeast of the city. The study area has included completed and ongoing 20/80 Integrated Housing projects. (See Figure 1&2)

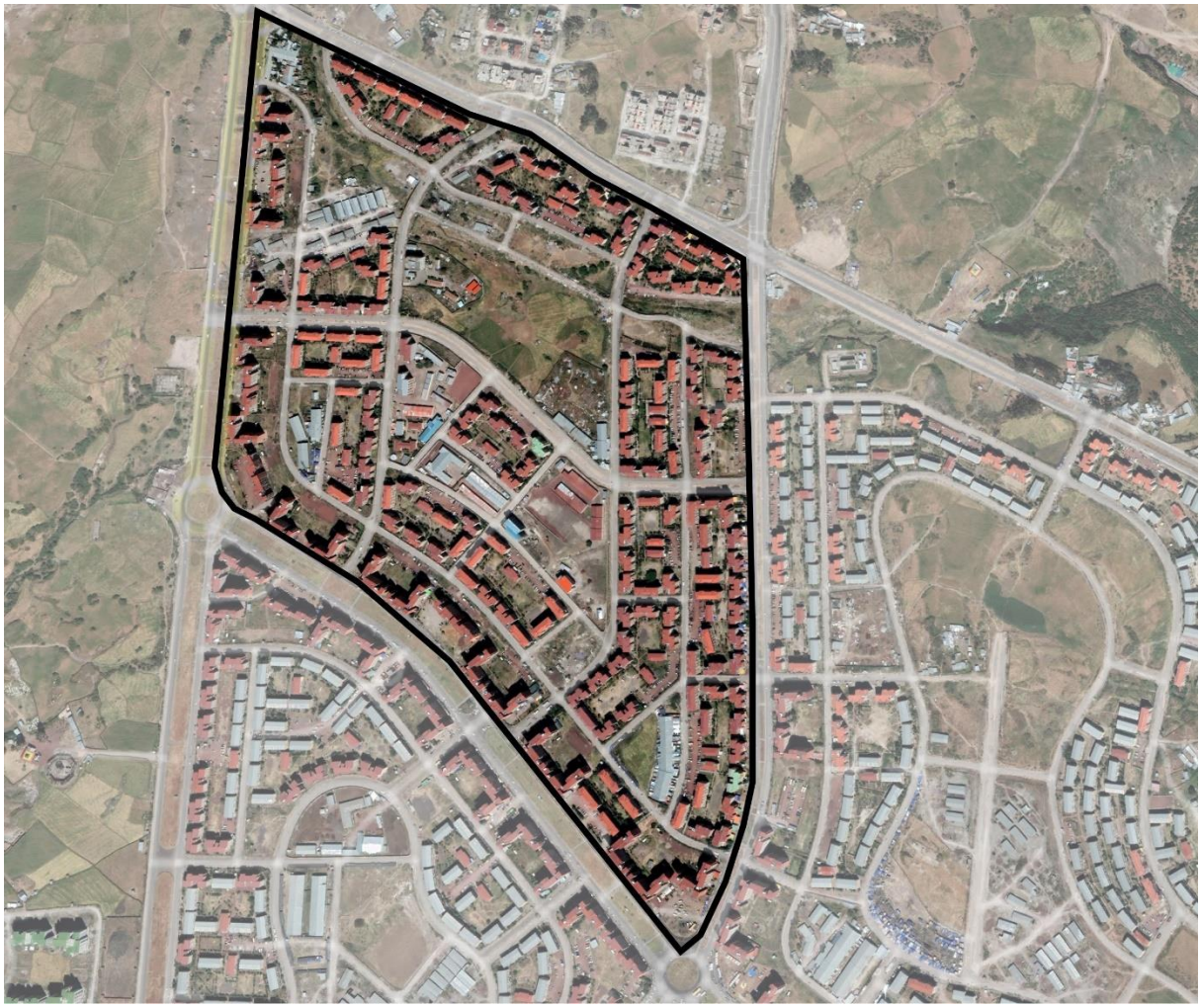

Figure 1: Bole Arabsa Location Map (Source: Google Earth(2023), Maxar Technologies)

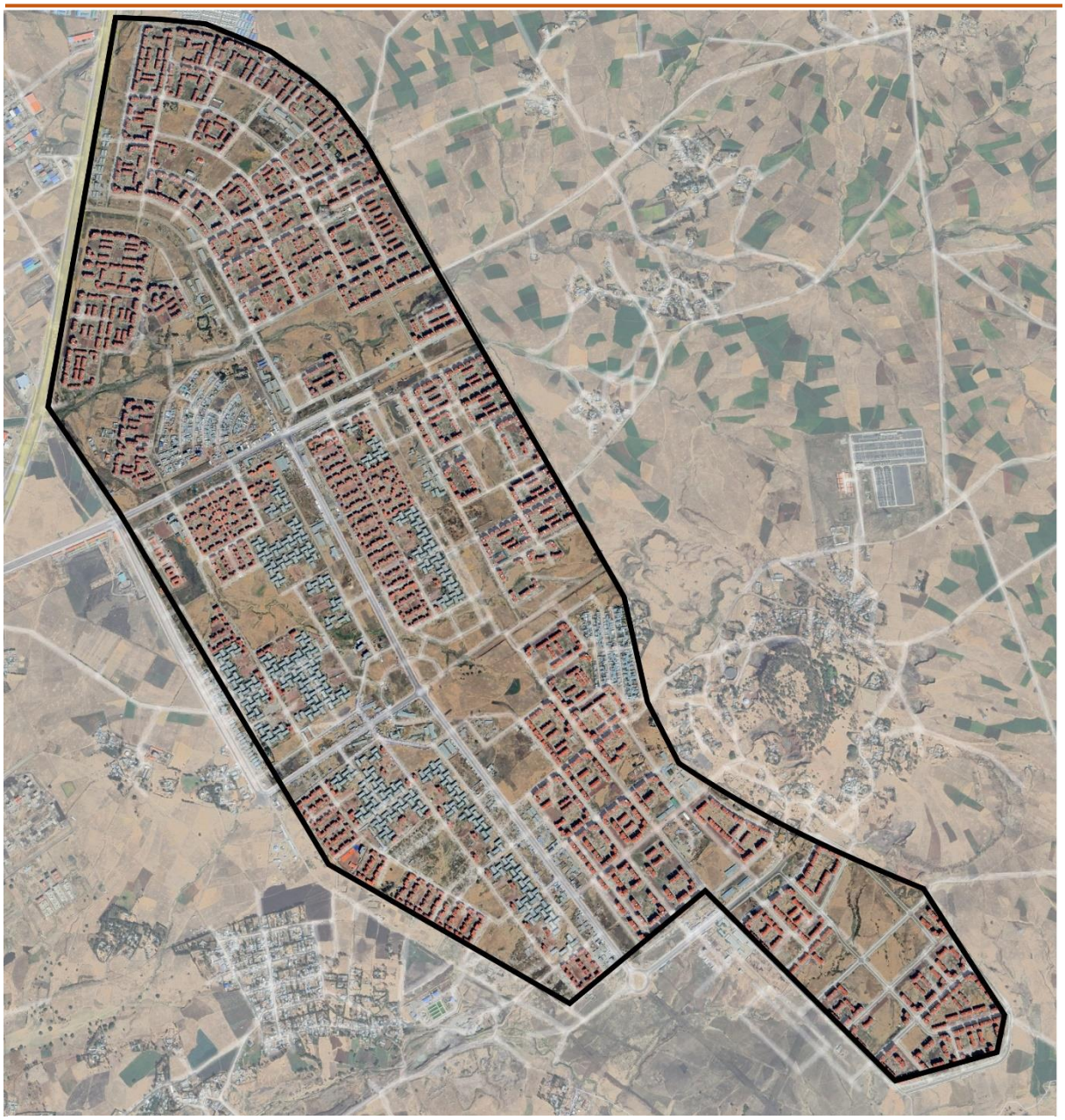

Figure 2: Koye Feche Location Map (Source: Google Earh(2023), Maxar Technologies)

This study investigates the complex issue of corruption in Ethiopia's housing development sector. It uses a case study-mixed methods design, combining qualitative (interviews, documents) and quantitative data (surveys) to gain a deep understanding. Why Mixed Methods? The boundaries between corruption and housing development are blurry, making this approach ideal as indicated by Yin (2018, 16) and Creswell and J. David (2018, 62)

Stratified random sampling ensures a representative sample across different groups within the population (Gay, Mills and Airasian 2012, 144). This method reduces bias and guarantees proportional representation (Hair, Tatham and William C. 2019, 172). A statistical formula

(Cochran 1977, 69) determined the sample size (239) by considering factors like confidence level and margin of error. Consultants (a smaller group) were included entirely (census) for a total sample size of 251. Thematic analysis identified recurring themes from interviews, focus groups, and documents. Descriptive statistics (tables, percentages) summarized the data. Project Performance Analysis: Ratio analysis assessed project efficiency at specific sites (CPI & SPI). Data is presented clearly through tables, charts, and diagrams to create a compelling narrative. Qualitative data (themes) is presented first to establish context. Quantitative data is layered on top to confirm and enrich the qualitative findings (triangulation).

This research strives for credible and dependable findings by employing clear objectives, appropriate methods, validated measures, a representative sample, careful data analysis, and transparent reporting.

Results and Discussions- *Findings Regarding the types and frequency of malpractices:* Selection Based on Skills and Experience: A large majority (76%) of respondents believe the selection process for housing development is NOT based on skills and experience. This perception is consistent across both project sites (Arabsa and Koye). Nearly half (49%) of respondents reported witnessing issues in the selection process 1-5 times a year. A vast majority (82%) of respondents believe substandard construction materials are commonly used. This perception is consistent across both project sites (Arabsa and Koye). Over (43%) of respondents reported witnessing the use of substandard materials 1-5 times a year. A vast majority (87%) of respondents reported construction materials are not delivered according to schedule. This perception is consistent across both project sites (Arabsa and Koye). Frequency of Observing Late Deliveries: Similar to other issues, over (43%) of respondents reported witnessing late deliveries 1-5 times a year. An overwhelming majority (89%) of respondents reported that contractors and micro/small enterprises are not paid on time according to contracts. This problem is consistent across both project sites (Arabsa and Koye). Frequency of Observing Late Payments and Corruption: Over a third (35%) of respondents reported witnessing issues related to late payment and corruption 1-5 times a year.

Findings Regarding Impacts of Malpractices on Housing Affordability: The survey asked respondents how various malpractices in housing development can impact affordability. Here's a breakdown: Inflated Costs (39%): The most common concern is that involving unqualified

people, using poor-quality materials, delays in material delivery, and late payments to contractors all lead to higher overall construction costs. This makes the final housing units more expensive. Construction Delays (32%): Many respondents believe these corrupt practices cause significant delays in completing housing projects. This extends the construction timeline, potentially leading to additional costs and impacting affordability. Compromised Quality (29%): Substandard materials and unqualified workers can result in poorly built houses.

Findings Regarding Cost and Schedule Performance Index at the Case Sites

Most projects prefer cost under run plus when CPI is greater than 1. It indicates better performance than expected. However, as depicted in both sites, the cost performance index is 0.47 which is less than 1. This result implies that Project 17 and the blocks from the Arabsa Project-7 had a rate of poor performance, were utilized above the budget, and had a negative cost variance. SPI is accepted by most projects when more work is completed than was planned. If SPI is greater than 1 expected performance is better. However, as indicated in both sites, the schedule performance index is 0.27 which is less than 1. This indicates that less work was completed than was planned at that specific time

Findings Regarding the Efforts of Stakeholders to Make the Housing Affordable: The survey asked respondents about their perception of efforts to deliver government-sponsored housing at affordable prices, on time, within budget, and with good quality. Overwhelmingly Negative Perception (81%): A vast majority (81%) of respondents believe efforts to achieve these goals are weak. This negative perception is consistent at both project sites (Arabsa and Koye). A small minority (around 1%) believe efforts are strong.

To summarize, a poorly managed selection process, frequent use of substandard materials, delays in material deliveries, and late payments to contractors are plaguing government-sponsored condominium projects, leading to inflated costs, construction delays, compromised quality, and ultimately, unaffordable housing for residents.

The study found serious problems in government housing projects. People with the wrong skills are hired, low-quality materials are used, materials arrive late, and payments are delayed as identified by FEACC (2019). These issues cause costs to rise, projects to take longer, and result in

poor quality housing that residents can't afford (Wu et al., 2019; Turner, 2018). Overall, those involved don't seem interested in delivering affordable housing on time and within budget.

Conclusion: A government housing program in Addis Ababa aimed to deliver affordable housing, but the study found widespread problems like unqualified staff, low-quality materials, delays, and late payments. These issues significantly increased costs and made the housing unaffordable for residents, suggesting a lack of commitment from stakeholders to address these systemic problems.

Recommendations: A study in Addis Ababa revealed widespread problems in government housing projects, like unqualified staff using low-quality materials, causing delays and late payments. These issues make housing unaffordable. To fix this, the study recommends stricter quality control, on-time payments, selecting qualified staff, and measures to improve efficiency, anti-corruption, and stakeholder commitment. By following these steps, the government can deliver on its promise of affordable housing.

Authors Statement: We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

References

Alemneh, T., and B. Tsegaye. 2017. "The Impact of Corruption on Construction Quality in Addis Ababa, Ethiopia." International Journal of Civil Engineering and Technology 8 (8): 1466-1474.

Bezabih, Haregot Abreha. 2017. Assessment of Corruption Challenges in Executing Construction Projects: The Case of Two Federal Housing Projects in Addis Ababa, Ethiopia. Addis Ababa: Unpublished Master' thesis, Addis Ababa University.

Bratt, R., J. Zhao, and Y. Zhou. 2017. "Corruption and Social Housing Allocation in China." Urban Studies 54 (5): 1122-1141.

Chatterjee B., and Deb Roy D. 2020. "Corruption in urban development projects: A case study of India." Journal of Economic Development 45 (2): 181-202.

Chen, J., J. K. Kung, and X. Liu. 2023. "Nepotism and Social Housing Allocation in China: Evidence from

a Natural Experiment." Journal of Urban Economics 130: 103452.

Cochran, William G. 1977. Sampling Techniques. 3rd ed. New York: John Wiley & Sons.

Cooper, Donald R., and Schindler Pamela S. 2014. Business Research Methods. 12th ed. New York: McGraw-Hill/Irwin.

Creswell, John W., and Creswell J. David. 2018. Research Design: Qualitative, Quantitative and Mixed Methods Approaches. 5th ed. Los Angeles: Sage.

FEACC. 2019. Indicators of the Trend of Corruption in the Procurement Process. Addis Ababa: Unpublished, 1-16.

—. 2016. Study on Role of Consultants in Preventing Corruption in the Construction Sector. Addis Ababa: Unpublished.

Gay, L. R., Geoffrey E. Mills, and Peter Airasian. 2012. Educational Research : Competencies for Analysis and Applications. 10th ed. New Jersey: Pearson Education, Inc.

Glaeser, E. L., J. Gyourko, and M. Kahn. 2008. "Land-Use Regulations and Housing Affordability: Evidence from a Large Sample of Regulated Metropolitan Areas." American Economic Review 98 (5): 1753-1769.

Google Earth. "Location Map of Koye Feche.". 2023. 04 01. Accessed 04 24, 2024. https://earth.google.com/web/search/Koye+Fetche+Condominium,+Addis+Ababa/@8.89904803,38.82972059,2201.33592432a,5065.37645062d,35y,-0h,0t,0r/data=CigiJgokCVtf70cMLR1AEXcuZnbeCR1AGUC7HHuf-kJAIVM0uKSl8EJAOgMKATA.

Google Earth. "Location of Bole Arabsa.". 2022. 20 11. Accessed 04 24, 2024. https://earth.google.com/web/search/Arabsa+Condominium/@8.978401 1,38.88969696,2321.07435363a,261 6.80492517d,35y,-0h,0t,0r/data=Cn0aUxJNCiUweDE2NGI5YjIxNDYyMWFmNDU6MHgyNDhmYzhjZWU5MzlkNWMzGc4Nl2YE9SFAIc2MI3spckNAKhJBcmFic2EgQ29uZG9taW5pdW0YAiABIiYKJAkdhGJ.

Hailu, D. 2016. "Housing Development in Urban Ethiopia: A Review of Policy and Practice." Habitat International 53 (3): 178-187.

Hair, Joseph F., Ronald L. Tatham, and William C. . 2019. Multivariate Data Analysis. 8th ed. New York, NY: Routledge.

Imbroscio, D. 2020. "Restoring Trust in Public Housing: A Framework for Addressing Resident Concerns."

Housing Policy Debate 31 (2): 330-347.

Kennedy, M., and C. Arthur. 2017. "An examination of the relationship between public housing demolition and neighborhood poverty rates." Journal of Urban Affairs 39 (2): 230-248.

Mekonnen, Y. 2007. Assessment of Affordability of Condominium Houses: The Case of Addis Ababa Housing Construction Project Office at Tuludimtu. Master's thesis, Addis Ababa University.

Mitra, S., and K. Sanyal. 2014. "Corruption and Housing Markets in Transition Economies." Journal of Urban Economics 84 (1): 74-88.

Morrow, J. 2021. "The perils of public housing privatization: A case study of Chicago." Journal of Urban Affairs, 43 (4): 599-618.

Muluye, Tarekegn A. 2016. Assessment of Affordability of Condominium Housing for Low-income Households in Addis Ababa, Ethiopia. Master's thesis, Addis Ababa University.

Popkin, S. J., R. J. Sokolowski, and A. D. Hutson. 2021. "The Long Shadow of Neglect: The Disrepair of Public Housing and the Spatial Concentration of Poverty." Housing Policy Debate 32 (3): 544-565.

Sullivan, T. 2019. Rethinking public housing: A history of policy and practice in the United States. Routledge.

Transparency International. 2023. Corruption Perception Index 2022. survey-based report, Transparency International.

Tsegaye, A., M. Tefera, and S. Tsegaye. 2017. "Assessing the Effectiveness of Housing Policy in the Integrated Housing Development Programme (IHDP) in Addis Ababa, Ethiopia." Ethiopian Journal of Environmental Studies and Management 10 (1): 124-132.

Turner, M. A. . 2018. Public Housing and the Politics of Race and Poverty in American Cities. University of Chicago Press.

World Bank. 2013. Improving Construction Contract Management in Developing Countries. World Bank.

Wu, S., Wang, J., and X. Zhao. 2019. "The impact of government corruption on construction safety: Evidence from China." Accident Analysis & Prevention 129: 178-188.

Yin, Robert K. 2018. Case Study Research: Design and Methods. Sixth edition. Thousand Oaks, CA: Sage Publications.

Appendix-2: Post-Defense Script

I would like to express my sincere gratitude to Drs. Mekonnen Abebe and Alazar Assefa and all attendants for their insightful feedback on my thesis presentation. Their valuable critiques significantly enhanced both the structure and content of my work. In the following, I will address how I reflected on the key points raised.

This revision focuses on clarity, conciseness, and a more professional tone

From the side of the external examiner (Dr. Mekonnen Abebe)

Chapter 1: The valuable feedback on the title, research question, scope, and research design has been carefully addressed and implemented.
Chapter 2: The literature gap is identified based on the insightful comments. Additionally, the conceptual diagram has been revised using the suggested approach.
Chapter 3: Figures have been meticulously aligned with their corresponding numbers. Headlines were added for improved clarity, and the sample population and sample size were further elaborated upon. However, due to the AAU (EiABC) format requirements, the suggested alternative names for these elements could not be adopted.
Chapter 4: The title for the findings section has been revisited based on the feedback.

From the side of the internal examiner (Dr. Alazar Assefa)

Chapter 1: Refined Title and Alignment
The research title was revised based on the insightful comments, ensuring its appropriateness.
The abstract section was restructured to align with the new title.
The background and problem statement were clarified to smoothly lead into the research objective and question.
The objective and specific objectives were rewritten based on the results (considering the examiner's suggestions).

Clarification of Specific Objectives

It is important to note that the data on cost and schedule performance index, along with the payment-to-income ratio, serves to support the third specific objective - the impact of malpractice on housing affordability. They were not intended as independent objectives, but rather as evidence for the data gathered through surveys, interviews, and focus groups.

Chapter 2: Content Adjustment Following Title Change

The revised title, "Malpractices in Government-sponsored Housing Projects and their Impact on Housing Affordability," necessitated revisiting the literature review content for alignment. The contextual review was edited based on the comments, and the literature review summary was restructured to follow the order of the specific objectives. Additionally, the conceptual framework was modified accordingly.

Chapter 4: Results and Discussion

Interview, focus group discussion, and document analysis results were incorporated into the findings section.

The source of tables about the cost and schedule performance index was adjusted for accuracy. The results, their summary, and the discussion were reorganized to align with the order of the specific objectives.

Chapter 5: Conclusion and Recommendations

The conclusion and recommendations were refined based on the revisions made in the previous sections for consistency.

I would like to express my sincere gratitude once more for the insightful comments and thought-provoking questions you provided.

Appendix-3: Questionnaire for Bole Arabsa and Koye Project Site

Introduction

Dear respondent,

The owner of this study is Mihretu Daniel Mekuria and he is pursuing his postgraduate studies for an MSc in Housing and Sustainable Development (HASD) at Addis Ababa University, Ethiopian Institute of Architecture, Building Construction and City Development. I _____ help the owner of this research study by collecting data. The main objective of this questionnaire is to collect data with the title of "Malpractice in Government-Sponsored Housing Projects and its Impact on Affordability". I would like to assure you that the information collected using this questionnaire will be used for educational purposes only and your responses will be kept confidential. Also, for clarity, the researcher's school ID, as well as the department's letter of support is attached. Finally, if you have any questions that require clarification, you can contact the study owner at the address below

So, dear respondent, are you willing to be asked and answer (fill out this questionnaire) in this survey?

1. Yes, I am 2. No, I am not

Therefore, if you are willing to fill out this questionnaire, I humbly request that you answer the questionnaire truthfully, completely, and patiently so that the owner of the study will be successful in his research.

Pre-questionnaire (for data collectors)

- ✓ For the above question, if the answer to the questioner is "No", then the questioner should thank the respondent and move on to the next respondent according to the Survey Protocol.
- ✓ If the respondent answers "yes", the data collector can proceed directly to the Respondent Profile query

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Thank you very much for your cooperation!

Part-1: Respondents' profile

1. How do you describe your gender?

   1. Male 2. Female

2. Which of the following classifies your level of education?

   1. Who did not attend formal education **2**. 1st-6th grade 3. 7th-8th grade 4. 9th-10th grade **5**. 11th-12th grade **6**. Technic and Vocational school **7.** Bachelor's degree **8**. Master's degree **9**. Third degree and above

3. What is your role in the government-sponsored condominium project?

   1. Consultant **2**. Contractor **3**. Project office **4**. Micro and small enterprise

4. How long have you worked in your current job (Related to condominium housing projects)? (in years)

   1. 1-5 years **2**. 6 -10 years **3**. 11-15 years **4**. 16 - 20 years **5**. > 20 years

5. Do you believe that it is possible to be honest and transparent in your current field of work?

   1. Yes, I believe 2. No, I don't believe

6. Based on your experience and your current work process (responsibility), what is your position(stand) if you encounter any kind of illegal activity (fraud, giving and receiving bribes, receiving a gift for something that should be done for free, etc.)?

   1. I will expose **2**. I prefer silence

7. Is the selection process of actors participating in the condominium housing process (consultant, contractor, MSEs, project office, etc.) based on only the skills and experience required by the work?

   1. Yes, it is **2**. No, it is not

   7.1. If your answer to the above question is no, it is not, what is how this kind of mistake can be made, knowing that a choice that is not based only on qualifications and experience will hurt the construction? _____
   _____
   _____

   7.2. If you have noticed the above problem meaning when a selection is made that is not based on qualifications and experience, approximately how many times has it happened per year since you joined this project?

   1. 1-5 **2**. 6-10 **3**. Greater than 10 **4**. Not noticed **5**. The problem does not exist

8. Is it observed that substandard construction materials are used, whether produced by MSEs or provided by contractors and the employer's office?

   1. Yes, it is observed 2. No, it is not observed

   8.1. If your answer to the above question is yes, it is observed, then what is how this type of mistake can be made when it is known that the use of substandard construction materials will seriously affect the construction? _____
   _____
   _____

8.2. If you have ever noticed substandard construction materials being used, approximately how many times in a year have you encountered it since you joined this project?
1. 1-5 **2**. 6-10 **3**. Greater than 10 **4**. Not noticed **5**. The problem does not exist

9. Are the construction materials produced by MSEs or supplied by contractors and the employer's office always delivered according to the given schedule?
1. Yes, they are **2**. No, they aren't

9.1. If your answer to the above question is no, will the stakeholders in the work process be exposed to unwanted illegal activity/corruption due to failure to supply construction materials according to the set timetable or When there exists a shortage of construction materials?
1. Yes, they are exposed **2**. No, they are not exposed

9.2. Approximately how many times in a year have you encountered unwanted illegal activity/corruption due to the non-delivery of construction materials as per the set schedule?
1. 1-5 **2**. 6-10 **3**. Greater than 10 **4**. Not noticed **5**. The problem does not exist

10. Is the payment request by contractors and MSEs being paid on time according to the contract all the time?
1. Yes, it is paid **2**. No, it is not paid

10.1. If your answer to the above question is no, it is not, does not paying according to the schedule stipulated in the contract expose you to illegal activities/corruption to be paid on time?
1. Yes, it exposes **2**. No, it does not expose

10.2. Approximately how many times in a year have you been exposed to unwanted illegal activity/corruption due to non-payment as per the contract?
1. 1-5 **2**. 6-10 **3**. Greater than 10 **4**. Not noticed **5**. The problem does not exist

11. How involving unskilled and inexperienced, using poor quality construction materials, not providing construction materials on time, and not paying payments according to the schedule stipulated in the contract stakeholders in the government-sponsored condominium housing process can affect housing affordability negatively? _____
_____
_____

12. Do you believe that the condominium housing sponsored by the government is being transferred to the resident at an affordable price?
1. Yes, I believe **2**. No, I do not believe

12.1. If your answer to the above question is no, it is not, what do you think is the main reason to not transfer the government-sponsored condominium house at an affordable price? _____
_____
_____

13. In your field of work, how do you see the effort to transfer the government-sponsored condominium house at an affordable price? **1**. Strong **2**. Medium **3**. Weak

Thank you very much for your cooperation!

መግቢያ

ውድ ምላሽ ሰጪ፣

የዚህ ጥናት ባለቤት **ምህረቱ ዳንኤል መኩሪያ** የሚባሉ ሲሆኑ በአዲስ አበባ ዩኒቨርሲቲ፣ የኢትዮጵያ አርክቴክቸር፣ የሕንፃ ግንባታ እና የከተማ ልማት ተቋም፤ የድኅረ-ምረቃ ትምህርታቸውን በMsc in Housing and Sustainable Development(HASD) በመከታተል ላይ ይገኛሉ። እኔ ደግሞ_____ስሆን የጥናቱን ባለቤት መረጃ በመሰብሰብ አግዛቸዋለሁ። የዚህ መጠይቅ ዋናው ዓላማ "በመንግስት የሚደገፉ የቤቶች ፕሮጀክቶች ውስጥ ያለው ብልሹ አሰራር እና በቤቶች ተመጣጣኝ ዋጋ ላይ ያለው ተጽእኖ" በሚል ርዕስ የማስተርስ ጥናት መረጃ መሰብሰብ ነው። ይህንን መጠይቅ በመጠቀም የሚሰበሰበው መረጃ ለትምህርታዊ ዓላማ ብቻ እንደሚውል እና ምላሽዎ ደግሞ በሚስጥር እንደሚያዝ ላረጋግጥልዎ እወዳለሁ። በተጨማሪም ግልፅነት ይኖረው ዘንድ የአጥኚው የትምህርት ቤት መታወቂያ ፣ እንዲሁም የትምህርት ክፍሉ የድኃፍ ደብዳቤ በአባሪነት ተያይዟል፡፡ በመጨረሻም ማብራሪያ የሚሹ ጥያቄዎች ካለዎት ከታች ባለው አድራሻ የጥናቱን ባለቤት ማግኘት ይችላሉ፡፡

ስለሆነም ውድ ምላሽ ሰጪ፣ በዚህ ጥናት ለመጠየቅና መልስ ለመስጠት (ይህንን መጠይቅ ለመሙላት) ፈቃደኛ ኖት?

1. አዎን ፈቃደኛ ነኝ 2. አይ ፈቃደኛ አይደለሁም

ስለዚህ ይህን መጠይቅ ለመሙላት ፈቃደኛ ከሆኑ የጥናቱ ባለቤት በጥናታቸው ስኬታማ ይሆኑ ዘንድ መጠይቁን በእውነት፣ ሙሉ በሙሉ እና ጊዜ ሰጥተው እንዲመልሱ በትህትና እጠይቃለሁ።

ቅድመ መጠይቅ (ለመረጃ ሰብሳቢዎች)

- *ከዚህ በላይ ላለው ጥያቄ፣ ለጥያቄ ጠያቂው የሚሰጡት ምላሽ "አይ" ከሆነ፣ ጠያቂው ተጠያቂውን አመሰግኖ በSurvey Protocol መሰረት ወደሚቀጥለው ተጠያቂ መሄድ ይኖርበታል።*
- *ተጠያቂው የሚሰጡት ምላሽ "አዎን" ከሆነ መረጃ ሰብሳቢው በቀጥታ ወደ ምላሽ ሰጪ መረጃ (Respondent Profile) መጠይቅ መቀጠል ይችላል፤*

ምህረቱ ዳንኤል መኩሪያ

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ስለትብብርዎ እጅግ በጣም አመሰግናለሁ!

ክፍል 1፡ የመላሹ መገለጫ/መረጃ (Respondent Profile)

1. ጾታዎን እንዴት ይገልጹታል? 1. ወንድ 2. ሴት
2. የትምህርት ደረጃዎ ከሚከተሉት በየትኛው ይመደባል?
   1. መደበኛ ትምህርት ያልተከታተለ 2. ከ1ኛ-6ኛ ክፍል 3. ከ7ኛ-8ኛ 4. ከ9ኛ-10ኛ 5. ከ11ኛ-12ኛ
   6. ቴክኒክ እና ሙያ 7. የመጀመሪያ ዲግሪ 8. ሁለተኛ ዲግሪ 9. ሦስተኛ ዲግሪ እና ከዛ በላይ
3. በመንግስት በሚደገፈው የኮንዶሚንየም ቤቶች የስራ ሂደት ውስጥ የእርስዎ የሥራ ድርሻ ምንድነው?
   1. አማካሪ 2. ስራ ተቋራጭ 3. የፕሮጀክት ቢሮ ሰራተኛ 4. ጥቃቅንና አነስተኛ ኢንተርፕራይዝ
4. አሁን ባሉበት የስራ ዘርፍ(ከኮንዶሚንየም ጋር በተገናኘ) ለምን ያህል ጊዜ አገልግለዋል?(በዓመት)
   1. 1-5 2. 6-10 3. 11-15 4. 16-20 5. ከ20 በላይ
5. አሁን ባሉበት የስራ ዘርፍ ከስራው ባህሪ አንጻር ሲታይ ሃቀኛና ግልፅ መሆን ይቻላል ብለው እርሶ ያምናሉ?
   1. አዎን አምናለሁ 2. አይ አላምንም
6. ከዚህ ቀደም ከነበረዎት ልምድ አሁን ባሉበት የስራ ሂደት (ሃላፊነት) ውስጥ የትኛውም ዓይነት የህገ-ወጥ ተግባር (ማጭበርበር ፣ ጉቦ መስጠትና መቀበል ፣ በነፃ መሆን ያለበትን በገጸ በረከት ማከናወን ፣ ወዘተ) ተፈፅሞ ቢያጋጥምዎ አቋምዎ ምን ዓይነት ነው?
   1. አጋልጣለሁ 2. ዝምታን እመርጣለሁ

ክፍል 2፡- በመንግስት የሚደገፈውን የኮንዶሚንየም ስራ ሂደት የሚመለከቱ ጥያቄዎች (Questions regarding the government-sponsored condominium process)

ምድብ 1፡- በኮንዶሚንየም ስራ ሂደት የሚሳተፉ ተዋንያን ምርጫ በተመለከተ (Regarding the selection of actors in the Government sponsored condominium house process)

7. በኮንዶሚንየም የስራ ሂደት የሚሳተፉ ተዋንያን(አማካሪ፣ ስራ ተቋራጭ፣ ጥቃቅንና አነስተኛ ማህበራት፣ ሳይት መሃንዲስ፣ወዘተ…) ምርጫ ሂደት ስራው የሚፈልገውን ብቃት እና ልምድን **ብቻ** መሰረት ያደረገ ነው?
   1. አዎን 2. አይ አይደለም

7.1. ከላይ ላለው ጥያቄ መልስዎ **አይ አይደለም** የሚል ከሆነ ብቃትና ልምድን ብቻ መሰረት ያላደረገ ምርጫ ግንባታው ላይ አሉታዊ ተፅዕኖ እንደሚያሳድር እየታወቀ ይህ ዓይነት ስህተት ሊሰራ የሚችልባቸው መንገዶች ምንድናቸው?
_____
_____
_____
_____

7.2. ከላይ ያለው ችግር ማለትም ብቃትና ልምድን ብቻ መሰረት ያላደረገ ምርጫ ሲደረግ አስተውለው የምያውቁ ከሆነ ወደዚህ ስራ ከገቡበት ጀምሮ እስካሁን በዓመት ስንት ጊዜ አጋጥሞት ያውቃል?
   1. 1-5 2. 6-10 3. ከ10 በላይ 4. አላጋጠመኝም 5. የችግሩን መኖር አላመኑበትም

ምድብ 2፡- ለኮንዶሚንየም ግንባታ የሚውሉ ግብዓቶች ጥራትን በተመለከተ (Regarding the quality of the materials used for the construction of condominium housing)

8. በማህበራት የሚመረቱም ሆነ በስራ ተቋራጮችና በአሰሪው መስሪያ ቤት በኩል የሚቀርቡ ጥራታቸውን ያልጠበቁ የግንባታ ቁሳቁሶች ጥቅም ላይ ሲውሉ ይስተዋላል?
   1. አዎን ይስተዋላል 2. አይ አይስተዋልም

8.1. ከላይ ላለው ጥያቄ መልስዎ **አዎን ይስተዋላል** የሚል ከሆነ ጥራታቸውን ያልጠበቁ የግንባታ ቁሳቁሶችን መጠቀም ስራውን በእጅጉ እንደሚጎዳው የሚታወቅ ሆኖ ሳለ ይህ ዓይነት ስህተት ሊሰራ የሚችልባቸው መንገዶች ምንድናቸው?
_____
_____
_____
_____

8.2. ከላይ ያለው ችግር ማለትም ጥራታቸውን ያልጠበቁ የግንባታ ቁሳቁሶች ጥቅም ላይ ሲውሉ አስተውለው የሚያውቁ ከሆነ ወደዚህ ስራ ከገቡበት ጀምሮ እስካሁን በዓመት ስንት ጊዜ አጋጥሞት ያውቃል?

1. 1-5 2. 6-10 3. ከ10 በላይ 4. አላጋጠመኝም 5. የችግሩን መኖር አላመኑበትም

<u>ምድብ 3፡- ለኮንዶሚኒየም ግንባታ የሚውሉ ግብዓቶችን በወቅቱ ማቅረብን በተመለከተ (Regarding the timely provision of resources for the construction of condominium housing)</u>

9. በማህበራት የሚመረቱም ሆነ በስራ ተቋራጮችና በአሰሪው መስሪያ ቤት በኩል የሚቀርቡ የግንባታ ቁሳቁሶች **ሁል ጊዜ** በተሰጠው የጊዜ ሰሌዳ መሰረት ይቀርባሉ?

1. አዎን ይቀርባሉ 2. አይ አይቀርቡም

9.1. ከላይ ላለው ጥያቄ መልስዎ **አይ አይቀርቡም** የሚል ከሆነ የግንባታ ቁሳቁሶች በተቀመጠላቸው የጊዜ ሠሌዳ መሰረት ባለመቅረባቸው ምክንያት ወይንም የግንባታ ቁሳቁሶች እጥረት በሚከሰትበት ጊዜ በስራው ሂደት ውስጥ ያሉ ባለድርሻ አካላት ላልተፈለገ ህገ ወጥ ተግባር/ሙስና ይጋለጣሉ?

1. አዎን ይጋለጣሉ 2. አይ አይጋለጡም

9.2. ከላይ ያለው ችግር ማለትም የግንባታ ቁሳቁሶች በተቀመጠው የጊዜ ሰሌዳ መሰረት ባለመቅረባቸው ምክንያት ላልተፈለገ ህገ ወጥ ተግባር/ሙስና መጋለጥ በዓመት ስንት ጊዜ አጋጥሞት ያውቃል?

1. 1-5 2. 6-10 3. ከ10 በላይ 4. አላጋጠመኝም 5. የችግሩን መኖር አላመኑበትም

<u>ምድብ 4፡- በኮንዶሚኒየም ግንባታ ወቅት ያሉ ክፍያዎችን በተመለከተ (Regarding payments during the construction process of condominium housing)</u>

10. ስራ ተቋራጮች ሆኑ ማህበራት የሚያቀርቡት ክፍያ ውሉ በሚያዘው መሠረት **ሁሌ** በጊዜ ይከፈላል?

1. አዎን ይከፈላል 2. አይ አይከፈልም

10.1. ከላይ ላለው ጥያቄ መልስዎ **አይ አይከፈልም** የሚል ከሆነ ክፍያ ውሉ በሚያዘው የጊዜ ሰሌዳ መሰረት አለመክፈል ክፍያን በጊዜ ለማግኘት ሲባል ላልተፈለገ ህገ ወጥ ተግባር/ሙስና ያጋልጣል?

1. አዎን ያጋልጣል 2. አይ አያጋልጥም

10.2. ከላይ ያለው ችግር ማለትም ክፍያዎች ውሉ በሚያዘው መሰረት ባለመከፈላቸው ምክንያት ላልተፈለገ ህገ ወጥ ተግባር/ሙስና ተጋልጠው የሚያውቁ ከሆነ በዓመት ስንት ጊዜ አጋጥሞት ያውቃል?

1. 1-5 2. 6-10 3. ከ10 በላይ 4. አላጋጠመኝም 5. የችግሩን መኖር አላመኑበትም

<u>ክፍል 3፡- ገቢን ባገናዘበ ዋጋ የቤት ባለቤት የመሆን አቅምን በተመለከተ (Regarding affordable housing)</u>

11. በመንግስት በሚደገፈው የኮንዶሚኒየም የስራ ሂደት ውስጥ ብቃትና ልምድ የሌላቸውን ባለድርሻ አካላት ማሳተፍ፣ ጥራት የሌላቸውን የግንባታ ግብዓቶችን መጠቀም፣ የግንባታ ግብዓቶችን በጊዜ አለማቅረብና ክፍያዎችን ውሉ በሚያዘው የጊዜ ሰሌዳ መሰረት አለመክፈል የነዋሪውን ገቢ ባገናዘበ ዋጋ ቤት የማግኘት አቅምን የሚጎዳው እንዴት ነው?

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12. በመንግስት የሚደገፈው ኮንዶሚኒየም የነዋሪውን ገቢ ባገዘበ ዋጋ እየተላለፈ ነው ብለው ያምናሉ?

1. አዎን አምናለሁ 2. አይ አላምንም

12.1. ከላይ ላለው ጥያቄ መልስዎ አይ አላምንም የሚል ከሆነ በመንግስት የሚደገፈው የኮንዶሚኒየም ቤት የነዋሪውን ገቢ ባገናዘበ ዋጋ የማይተላለፍበት ዋናው ምክንያት ምንድነው?

_____

_____

13. እርስዎ ባሉበት የስራ ዘርፍ በመንግስት የሚደገፈው ኮንዶሚኒየም ቤት በተያዘው ጊዜ፤ ወጪና ጥራት ተጠናቆ የነዋሪውን ገቢ ባገናዘበ ዋጋ እንዲተላለፍ የሚደረገው ጥረት እንዴት ይታያል?

ነ. ጠንካራ ነው 2. መካከለኛ ነው 3. ደካማ ነው

በድጋሚ ስለትብብርዎ እጅግ በጣም አመሰግናለሁ!

Appendix-4: Interview for Stakeholders of Arabsa and Koye Project Sites

Dear interviewee,

At present, I am working on research entitled "Malpractices in Government-Sponsored Housing Projects and its Impact on Affordability" for partial fulfillment of all requirements of the Master of Science in Housing and Sustainable Development.

The main objective of this study is to investigate the trend of corruption in the process of government-sponsored condominium housing, particularly among consultants, contractors, project offices, and micro and small-scale enterprises, and test whether it affects the affordability of housing. To meet this research objective, it is necessary to have the response of consultants, contractors, MSE, and project office staff currently working on this project and hence you are one of the members engaged to respond to this interview. I conducted a questionnaire on this project and came up with findings. Now, I need to gather detailed information about the matter to enhance the research findings through interviews. I confirm that your response will be kept confidential and will be used only for academic purposes.

With Regards,
Mihretu Daniel

Advisors
Main advisor: Biruk Kebede
Co-advisor: Yonas Alemayehu

Thank you very much for your cooperation!

1. How are some of the stakeholders involved in the government-sponsored condominium projects without sufficient experience and qualifications to be selected?
2. How are substandard building materials produced by some production MSE or provided by contractors and the employer's office approved for use?
3. What do you think is the reason why the construction materials produced by the production MSE and provided by the contractors and the employer's office are not provided according to the given schedule?
4. What do you think is the reason why the payments requested by the contractors and production MSE are not paid on time according to the contract?
5. What do you think are the main reasons why the government-sponsored condominiums are not transferred at an affordable price to the residents?

Amharic version

1. በመንግስት በሚደገፈው የኮንዶሚኒየም ቤቶች ስራ ሂደት ውስጥ ከሚሳተፉ ባለድርሻ አካላት አንዳንዶቹ በቂ ልምድና ብቃት ሳይኖራቸው የሚመረጡት በምን መንገድ ነው?
2. አንዳንድ በማህበራት የሚመረቱም ሆነ በስራ ተቋራጮችና በአሰሪው መስሪያ ቤት በኩል የሚቀርቡ ጥራታቸውን ያልጠበቁ የግንባታ ቁሳቁሶች እንዴት ፀድቀው ነው ለአገልግሎት የሚውሉት?
3. በማህበራት የሚመረቱም ሆነ በስራ ተቋራጮችና በአሰሪው መስሪያ ቤት በኩል የሚቀርቡ የግንባታ ቁሳቁሶች በተሰጠው የጊዜ ሰሌዳ መሰረት የማይቀርቡበት ምክንያት ምንድነው ብለው ያስባሉ?
4. ስራ ተቋራጮች ሆኑ ማህበራት የሚያቀርቡት ክፍያ ውሉ በሚያዘው መሠረት በጊዜ የማይከፈልበት ምክንያት ምንድነው ብለው ያስባሉ?
5. በመንግስት የሚደገፈው የኮንዶሚኒየም ቤቶች ለነዋሪዎች ገቢን ባገናዘበ ዋጋ እንዳይተላለፉ ያደረጉ ዋና መሰረት የማይቀርቡበት ምክንያቶች ምንድናቸው ብለው ያስባሉ?

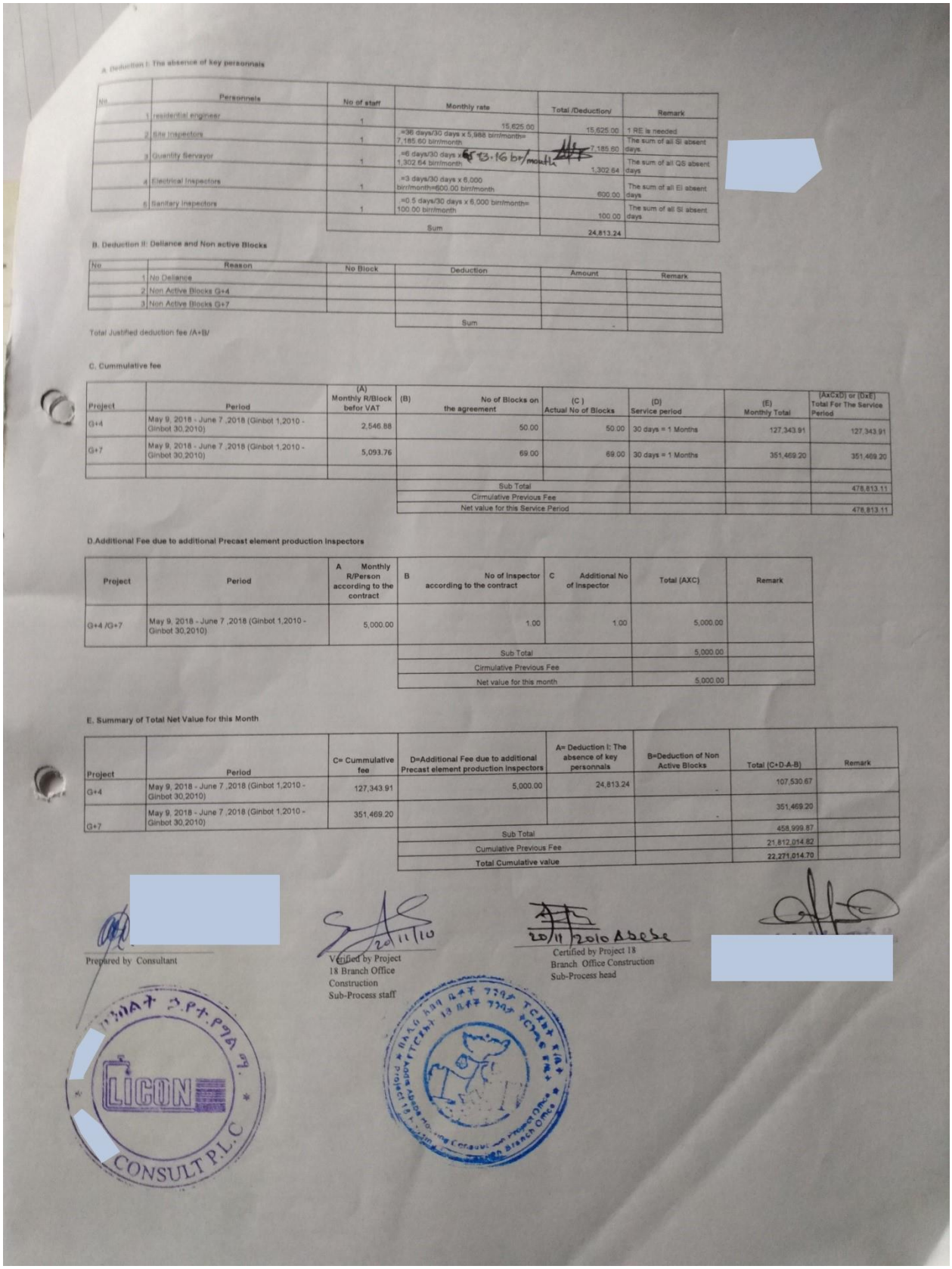
Appendix-5: Focus Group Discussion Questions

1. What are the malpractices in government-sponsored housing projects and how often do they occur?
2. Do malpractices affect the owning of affordable housing for the residents? How?
3. How committed are the stakeholders involved in the government-sponsored housing projects?

Amharic Version

1. በመንግስት የሚደገፉ የቤቶች ልማት ፕሮጀክቶች ላይ ያሉ ብልሹ አሰራሮች ምንድ ናቸው እና ምን ያህል ጊዜ ይከሰታሉ?
2. ብልሹ አሰራር ለነዋሪዎች ተመጣጣኝ መኖሪያ ቤት ባለቤትነት ላይ ተጽእኖ ያሳድራል? እንዴት?
3. በመንግስት የሚደገፉ የቤት ፕሮጀክቶች ላይ ባለድርሻ አካላት ምን ያህል ቁርጠኝነት አላቸው?

Appendix-6: Monthly payment for consultant



A. Deduction I: The absence of key personnels

No	Personnels	No of staff	Monthly rate	Total /Deduction/	Remark
1	residential engineer	1	15,625.00	15,625.00	1 RE is needed
2	Site Inspectors	1	=36 days/30 days x 5,988 birr/month= 7,185.60 birr/month	7,185.60	The sum of all SI absent days
3	Quantity Servayor	1	=6 days/30 days x 6,513.16 birr/month= 1,302.64 birr/month	1,302.64	The sum of all QS absent days
4	Electrical Inspectors	1	=3 days/30 days x 6,000 birr/month=600.00 birr/month	600.00	The sum of all El absent days
5	Sanitary Inspectors	1	=0.5 days/30 days x 6,000 birr/month= 100.00 birr/month	100.00	The sum of all SI absent days
			Sum	24,813.24	

B. Deduction II: Defiance and Non active Blocks

No	Reason	No Block	Deduction	Amount	Remark
1	No Defiance				
2	Non Active Blocks G+4				
3	Non Active Blocks G+7				
			Sum	-	

Total Justified deduction fee /A+B/

C. Cummulative fee

Project	Period	(A) Monthly R/Block befor VAT	(B) No of Blocks on the agreement	(C) Actual No of Blocks	(D) Service period	(E) Monthly Total	(AxCxD) or (DxE) Total For The Service Period
G+4	May 9, 2018 - June 7 ,2018 (Ginbot 1,2010 - Ginbot 30,2010)	2,546.88	50.00	50.00	30 days = 1 Months	127,343.91	127,343.91
G+7	May 9, 2018 - June 7 ,2018 (Ginbot 1,2010 - Ginbot 30,2010)	5,093.76	69.00	69.00	30 days = 1 Months	351,469.20	351,469.20
			Sub Total				478,813.11
			Cirmulative Previous Fee				
			Net value for this Service Period				478,813.11

D.Additional Fee due to additional Precast element production Inspectors

Project	Period	A Monthly R/Person according to the contract	B No of Inspector according to the contract	C Additional No of Inspector	Total (AXC)	Remark
G+4 /G+7	May 9, 2018 - June 7 ,2018 (Ginbot 1,2010 - Ginbot 30,2010)	5,000.00	1.00	1.00	5,000.00	
			Sub Total		5,000.00	
			Cirmulative Previous Fee			
			Net value for this month		5,000.00	

E. Summary of Total Net Value for this Month

Project	Period	C= Cummulative fee	D=Additional Fee due to additional Precast element production Inspectors	A= Deduction I: The absence of key personnals	B=Deduction of Non Active Blocks	Total (C+D-A-B)	Remark
G+4	May 9, 2018 - June 7 ,2018 (Ginbot 1,2010 - Ginbot 30,2010)	127,343.91	5,000.00	24,813.24	-	107,530.67	
G+7	May 9, 2018 - June 7 ,2018 (Ginbot 1,2010 - Ginbot 30,2010)	351,469.20			-	351,469.20	
				Sub Total		458,999.87	
				Cumulative Previous Fee		21,812,014.82	
				Total Cumulative value		22,271,014.70	

Prepared by Consultant

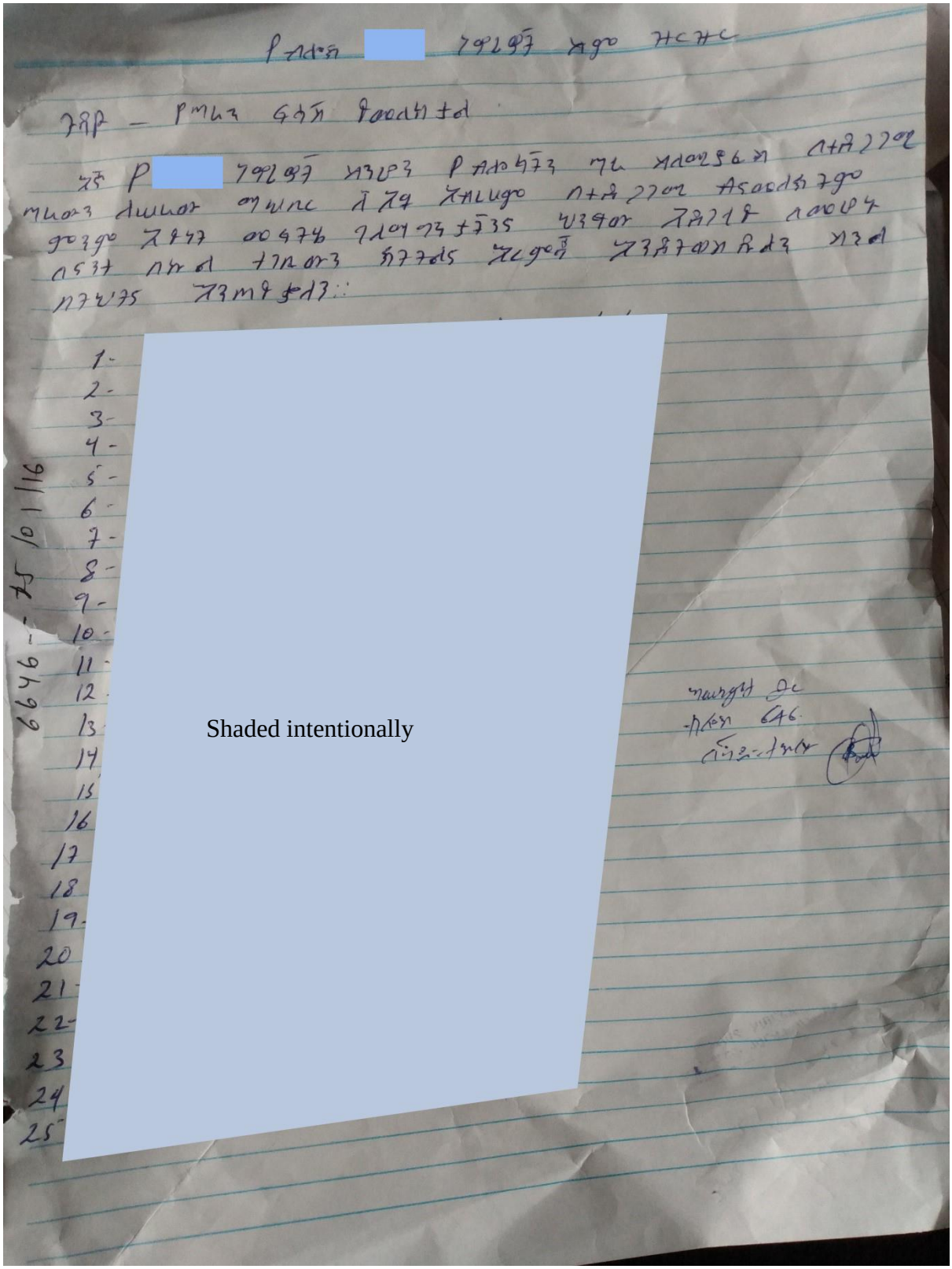
Verified by Project 18 Branch Office Construction Sub-Process staff

20/11/2010 Abebe

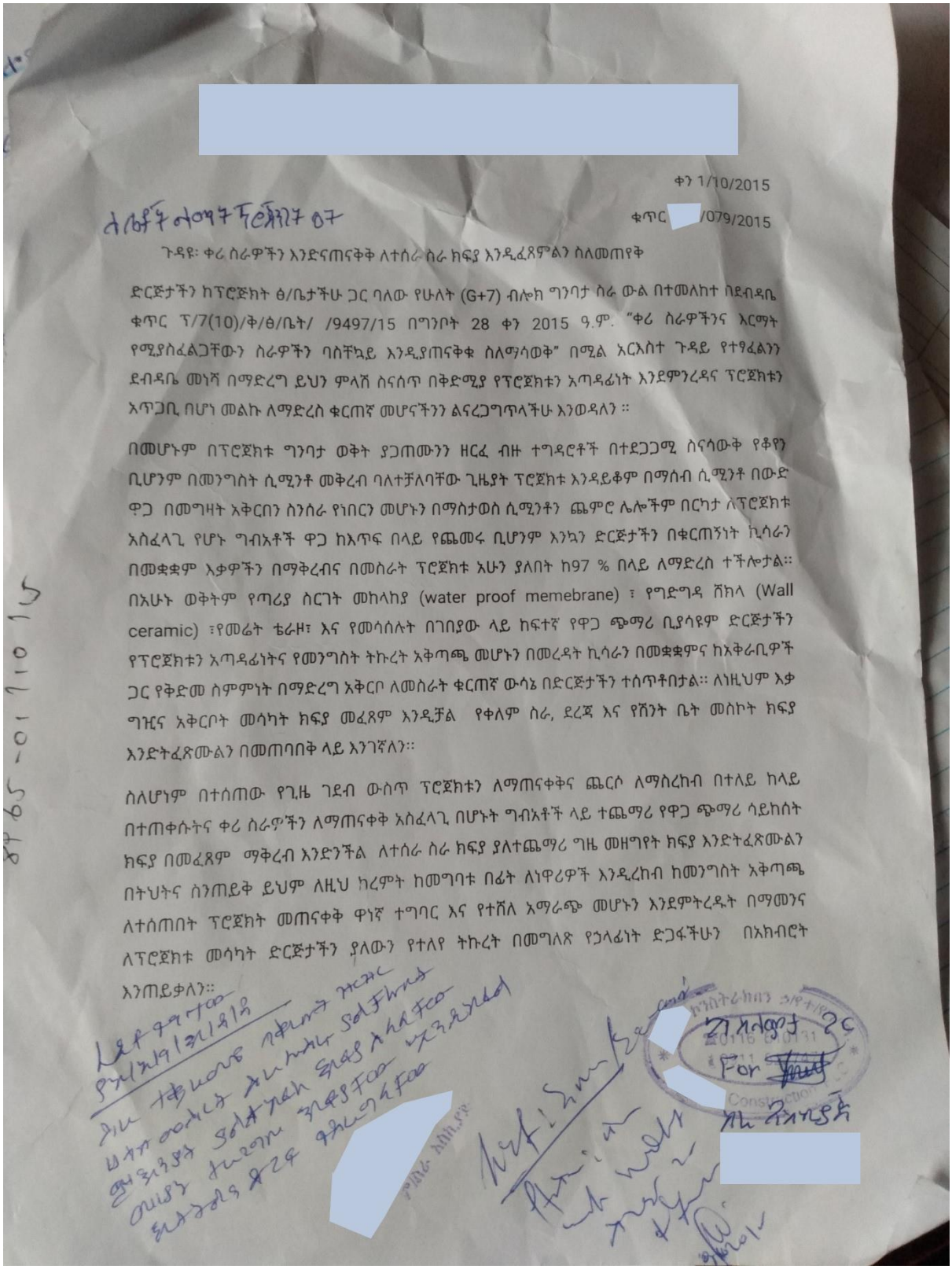
Certified by Project 18 Branch Office Construction Sub-Process head

LICON CONSULT P.L.C

Appendix-7: Letter of complaint from residents about roof problems



Appendix-8: Complaint letter from contractors about payment



ቀን 1/10/2015

ቁጥር [redacted]/079/2015

ጉዳዩ: ቀሪ ስራዎችን እንድናጠናቅቅ ለተሰራ ስራ ክፍያ እንዲፈጸምልን ስለመጠየቅ

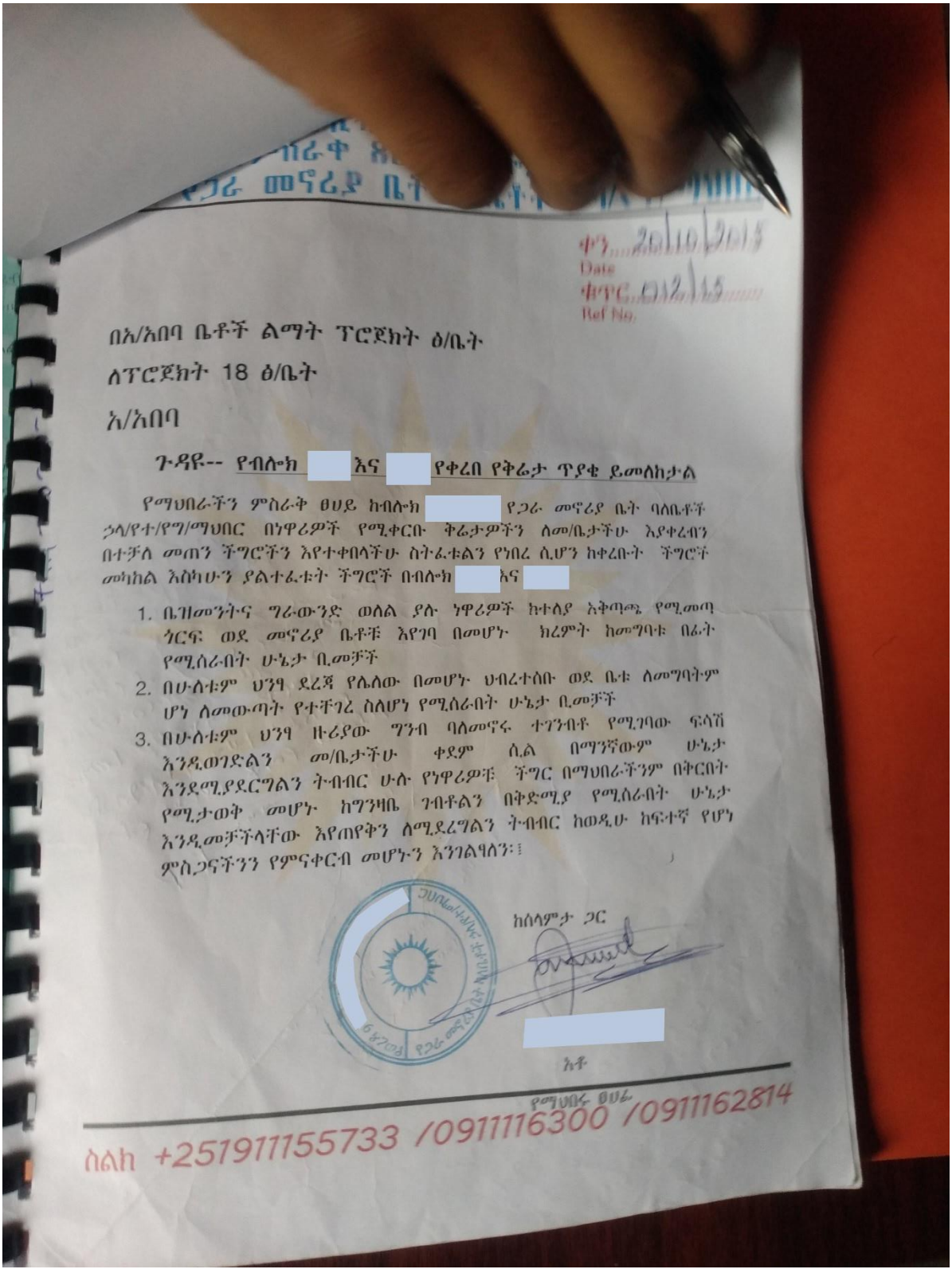
ድርጅታችን ከፕሮጅክት ፅ/ቤታችሁ ጋር ባለው የሁለት (G+7) ብሎክ ግንባታ ስራ ውል በተመለከተ በደብዳቤ ቁጥር ፕ/7(10)/ቅ/ፅ/ቤት/ /9497/15 በግንቦት 28 ቀን 2015 ዓ.ም. "ቀሪ ስራዎችንና እርማት የሚያስፈልጋቸውን ስራዎችን ባስቸኳይ እንዲያጠናቅቁ ስለማሳወቅ" በሚል አርእስተ ጉዳይ የተፃፈልንን ደብዳቤ መነሻ በማድረግ ይህን ምላሽ ስናሰጥ በቅድሚያ የፕሮጀክቱን አጣዳፊነት እንደምንረዳና ፕሮጀክቱን አጥጋቢ በሆነ መልኩ ለማድረስ ቁርጠኛ መሆናችንን ልናረጋግጥላችሁ እንወዳለን ::

በመሆኑም በፕሮጀክቱ ግንባታ ወቅት ያጋጠሙንን ዘርፈ ብዙ ተግዳሮቶች በተደጋጋሚ ስናሳውቅ የቆየን ቢሆንም በመንግስት ሲሚንቶ መቅረብ ባለተቻለባቸው ጊዜያት ፕሮጀክቱ እንዳይቆም በማሰብ ሲሚንቶ በውድ ዋጋ በመግዛት አቅርበን ስንሰራ የነበርን መሆኑን በማስታወስ ሲሚንቶን ጨምሮ ሌሎችም በርካታ ለፕሮጀክቱ አስፈላጊ የሆኑ ግብአቶች ዋጋ ከእጥፍ በላይ የጨመሩ ቢሆንም እንኳን ድርጅታችን በቁርጠኝነት ኪሳራን በመቋቋም እቃዎችን በማቅረብና በመስራት ፕሮጀክቱ አሁን ያለበት ከ97 % በላይ ለማድረስ ተችሎታል። በአሁኑ ወቅትም የጣሪያ ስርገት መከላከያ (water proof memebrane) ፣ የግድግዳ ሽክላ (Wall ceramic) ፣የመሬት ቴራዞ፣ እና የመሳሰሉት በገበያው ላይ ከፍተኛ የዋጋ ጭማሪ ቢያሳዩም ድርጅታችን የፕሮጀክቱን አጣዳፊነትና የመንግስት ትኩረት አቅጣጫ መሆኑን በመረዳት ኪሳራን በመቋቋምና ከአቅራቢዎች ጋር የቅድመ ስምምነት በማድረግ አቅርቦ ለመስራት ቁርጠኛ ውሳኔ በድርጅታችን ተሰጥቶበታል። ለነዚህም እቃ ግዢና አቅርቦት መሳካት ክፍያ መፈጸም እንዲቻል የቀለም ስራ, ደረጃ እና የሽንት ቤት መስኮት ክፍያ እንድትፈጽሙልን በመጠባበቅ ላይ እንገኛለን።

ስለሆነም በተሰጠው የጊዜ ገደብ ውስጥ ፕሮጀክቱን ለማጠናቀቅና ጨርሶ ለማስረከብ በተለይ ከላይ በተጠቀሱትና ቀሪ ስራዎችን ለማጠናቀቅ አስፈላጊ በሆኑት ግብአቶች ላይ ተጨማሪ የዋጋ ጭማሪ ሳይከሰት ክፍያ በመፈጸም ማቅረብ እንድንችል ለተሰራ ስራ ክፍያ ያለተጨማሪ ጊዜ መዘግየት ክፍያ እንድትፈጽሙልን በትህትና ስንጠይቅ ይህም ለዚህ ካረምት ከመግባቱ በፊት ለነዋሪዎች እንዲረከብ ከመንግስት አቅጣጫ ለተሰጠበት ፕሮጀክት መጠናቀቅ ዋነኛ ተግባር እና የተሸለ አማራጭ መሆኑን እንደምትረዱት በማመንና ለፕሮጀክቱ መሳካት ድርጅታችን ያለውን የተለየ ትኩረት በመግለጽ የኃላፊነት ድጋፋችሁን በአክብሮት እንጠይቃለን።

For [redacted]

Appendix-9: Letter of complaint from residents about stair and leakage



ቀን 20/10/2015
Date
ቁጥር 012/15
Ref No.

በአ/አበባ ቤቶች ልማት ፕሮጀክት ፅ/ቤት

ለፕሮጀክት 18 ፅ/ቤት

አ/አበባ

ጉዳዩ-- የብሎክ [redacted] እና [redacted] የቀረበ የቅሬታ ጥያቄ ይመለከታል

የማህበራችን ምስራቅ ፀሀይ ክብሎክ [redacted] የጋራ መኖሪያ ቤት ባለቤቶች ኃላ/የተ/የግ/ማህበር በነዋሪዎች የሚቀርቡ ቅሬታዎችን ለመ/ቤታችሁ እያቀረብን በተቻለ መጠን ችግሮችን እየተቀበላችሁ ስትፈቱልን የነበረ ሲሆን ከቀረቡት ችግሮች መካከል እስካሁን ያልተፈቱት ችግሮች በብሎክ [redacted] እና [redacted]

1. ቤዝመንትና ግራውንድ ወለል ያሉ ነዋሪዎች ከተለያ አቅጣጫ የሚመጣ ጎርፍ ወደ መኖሪያ ቤቶቹ እየገባ በመሆኑ ክረምት ከመግባቱ በፊት የሚሰራበት ሁኔታ ቢመቻች
2. በሁለቱም ህንፃ ደረጃ የሌለው በመሆኑ ህብረተሰቡ ወደ ቤቱ ለመግባትም ሆነ ለመውጣት የተቸገረ ስለሆነ የሚሰራበት ሁኔታ ቢመቻች
3. በሁለቱም ህንፃ ዙሪያው ግንብ ባለመኖሩ ተገንብቶ የሚገባው ፍሳሽ እንዲወገድልን መ/ቤታችሁ ቀደም ሲል በማንኛውም ሁኔታ እንደሚያደርግልን ትብብር ሁሉ የነዋሪዎቹ ችግር በማህበራችንም በቅርበት የሚታወቅ መሆኑ ከግንዛቤ ገብቶልን በቅድሚያ የሚሰራበት ሁኔታ እንዲመቻችላቸው እየጠየቅን ለሚደረግልን ትብብር ከወዲሁ ከፍተኛ የሆነ ምስጋናችንን የምናቀርብ መሆኑን እንገልፃለን፡፡

ከሰላምታ ጋር

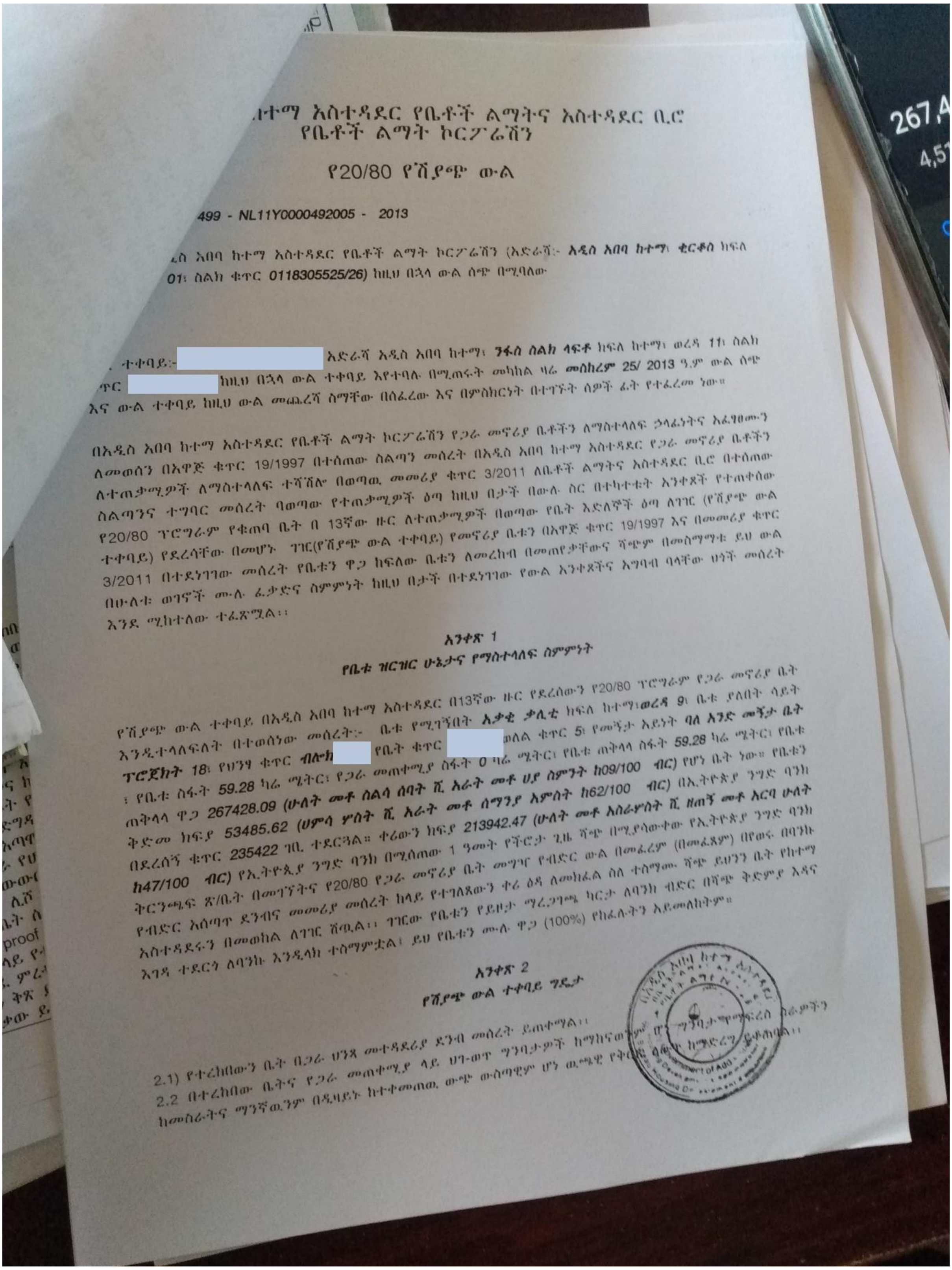
[redacted]

አቶ

የማህበሩ ፀሀፊ

ስልክ +251911155733 /0911116300 /0911162814

Appendix-10: Price for one bedroom type



...ተማ አስተዳደር የቤቶች ልማትና አስተዳደር ቢሮ
የቤቶች ልማት ኮርፖሬሽን

የ20/80 የሽያጭ ውል

499 - NL11Y0000492005 - 2013

...ስ አበባ ከተማ አስተዳደር የቤቶች ልማት ኮርፖሬሽን (አድራሻ:- **አዲስ አበባ ከተማ፣ ቂርቆስ** ክፍለ ...01፣ ስልክ ቁጥር 0118305525/26) ከዚህ በኋላ ውል ሰጭ በሚባለው

... ተቀባይ:- [redacted] አድራሻ አዲስ አበባ ከተማ፣ **ንፋስ ስልክ ላፍቶ** ክፍለ ከተማ፣ ወረዳ 11፣ ስልክ ...ጥር [redacted] ከዚህ በኋላ ውል ተቀባይ እየተባሉ በሚጠሩት መካከል ዛሬ **መስከረም** 25/ 2013 ዓ.ም ውል ሰጭ እና ውል ተቀባይ ከዚህ ውል መጨረሻ ስማቸው በሰፈረው እና በምስክርነት በተገኙት ሰዎች ፊት የተፈረመ ነው።

በአዲስ አበባ ከተማ አስተዳደር የቤቶች ልማት ኮርፖሬሽን የጋራ መኖሪያ ቤቶችን ለማስተላለፍ ኃላፊነትና አፈፃፀሙን ለመወሰን በአዋጅ ቁጥር 19/1997 በተሰጠው ስልጣን መሰረት በአዲስ አበባ ከተማ አስተዳደር የጋራ መኖሪያ ቤቶችን ለተጠቃሚዎች ለማስተላለፍ ተሻሽሎ በወጣዉ መመሪያ ቁጥር 3/2011 ለቤቶች ልማትና አስተዳደር ቢሮ በተሰጠው ስልጣንና ተግባር መሰረት ባወጣው የተጠቃሚዎች ዕጣ ከዚህ በታች በውሉ ስር በተካተቱት አንቀጾች የተጠቀሰው የ20/80 ፕሮግራም የቁጠባ ቤት በ 13ኛው ዙር ለተጠቃሚዎች በወጣው የቤት እድለኞች ዕጣ ለገዢ (የሽያጭ ውል ተቀባይ) የደረሳቸው በመሆኑ ገዢ(የሽያጭ ውል ተቀባይ) የመኖሪያ ቤቱን በአዋጅ ቁጥር 19/1997 እና በመመሪያ ቁጥር 3/2011 በተደነገገው መሰረት የቤቱን ዋጋ ከፍለው ቤቱን ለመረከብ በመጠየቃቸውና ሻጭም በመስማማቱ ይህ ውል በሁለቱ ወገኖች ሙሉ ፈቃድና ስምምነት ከዚህ በታች በተደነገገው የውል አንቀጾችና አግባብ ባላቸው ህጎች መሰረት እንደ ሚከተለው ተፈጽሟል፡፡

አንቀጽ 1

የቤቱ ዝርዝር ሁኔታና የማስተላለፍ ስምምነት

የሽያጭ ውል ተቀባይ በአዲስ አበባ ከተማ አስተዳደር በ13ኛው ዙር የደረሰውን የ20/80 ፕሮግራም የጋራ መኖሪያ ቤት እንዲተላለፍለት በተወሰነው መሰረት:- ቤቱ የሚገኝበት **አቃቂ ቃሊቲ** ክፍለ ከተማ፣**ወረዳ 9**፣ ቤቱ ያለበት ሳይት **ፕሮጀክት 18**፣ የህንፃ ቁጥር **ብሎክ**[redacted] የቤት ቁጥር [redacted] ወለል ቁጥር 5፣ የመኝታ አይነት **ባለ አንድ መኝታ ቤት** ፣ የቤቱ ስፋት 59.28 ካሬ ሜትር፣ የጋራ መጠቀሚያ ስፋት 0 ካሬ ሜትር፣ የቤቱ ጠቅላላ ስፋት 59.28 ካሬ ሜትር፣ የቤቱ ጠቅላላ ዋጋ 267428.09 **(ሁለት መቶ ስልሳ ሰባት ሺ አራት መቶ ሀያ ስምንት ከ09/100 ብር)** የሆነ ቤት ነው። የቤቱን ቅድመ ክፍያ 53485.62 **(ሀምሳ ሦስት ሺ አራት መቶ ሰማንያ አምስት ከ62/100 ብር)** በኢትዮጵያ ንግድ ባንክ በደረሰኝ ቁጥር 235422 ገቢ ተደርጓል። ቀሪውን ክፍያ 213942.47 **(ሁለት መቶ አስራሦስት ሺ ዘጠኝ መቶ አርባ ሁለት ከ47/100 ብር)** የኢትዮጲያ ንግድ ባንክ በሚሰጠው 1 ዓመት የችሮታ ጊዜ ሻጭ በሚያሳውቀው የኢትዮጵያ ንግድ ባንክ ቅርንጫፍ ጽ/ቤት በመገኘትና የ20/80 የጋራ መኖሪያ ቤት መግዣ የብድር ውል በመፈረም (በመፈጸም) በየወሩ በባንኩ የብድር አሰጣጥ ደንብና መመሪያ መሰረት ከላይ የተገለጸውን ቀሪ ዕዳ ለመክፈል ስለ ተስማሙ ሻጭ ይህንን ቤት የከተማ አስተዳደሩን በመወከል ለገዢ ሸጧል፡፡ ገዢው የቤቱን የይዞታ ማረጋገጫ ካርታ ለባንክ ብድር በሻጭ ቅድምያ እዳና እገዳ ተደርጎ ለባንኩ እንዲላክ ተስማምቷል፣ ይህ የቤቱን ሙሉ ዋጋ (100%) የከፈሉትን አይመለከትም።

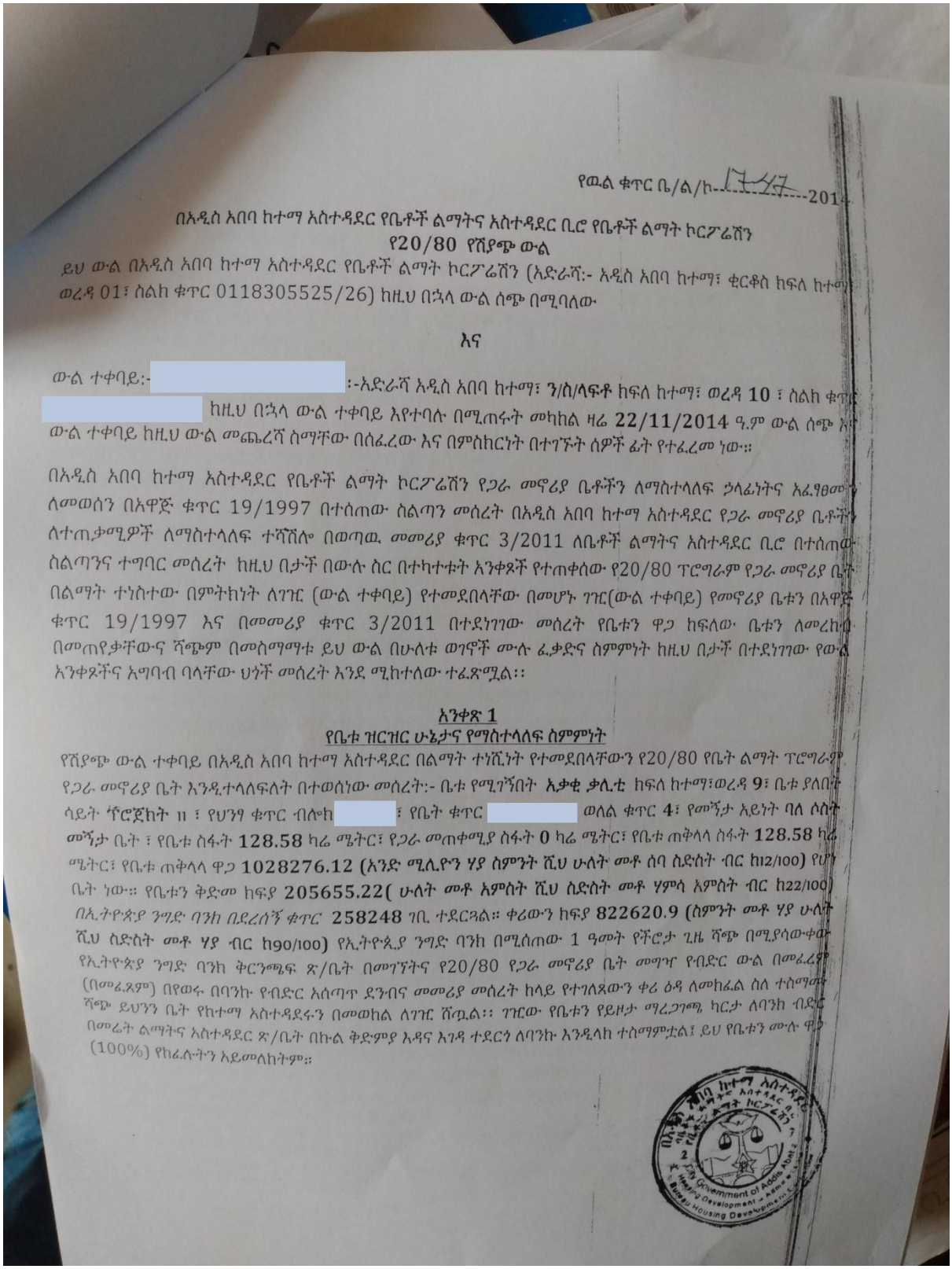
አንቀጽ 2

የሽያጭ ውል ተቀባይ ግዴታ

2.1) የተረከበውን ቤት በጋራ ህንጻ መተዳደሪያ ደንብ መሰረት ይጠቀማል፡፡

2.2 በተረከበው ቤትና የጋራ መጠቀሚያ ላይ ህገ-ወጥ ግንባታዎች ከማከናወን ... ውጭ ውስጣዊም ሆነ ዉጫዊ የቅ... ከመስራትና ማንኛዉንም በዲዛይኑ ከተቀመጠዉ ... ከማድረግ ... ይቆጠባል፡፡

Appendix-11: Price for three-bedroom type



የዉል ቁጥር ቤ/ል/ኮ-17447-201

በአዲስ አበባ ከተማ አስተዳደር የቤቶች ልማትና አስተዳደር ቢሮ የቤቶች ልማት ኮርፖሬሽን
የ20/80 የሽያጭ ውል

ይህ ውል በአዲስ አበባ ከተማ አስተዳደር የቤቶች ልማት ኮርፖሬሽን (አድራሻ:- አዲስ አበባ ከተማ፣ ቂርቆስ ክፍለ ከተማ ወረዳ 01፣ ስልክ ቁጥር 0118305525/26) ከዚህ በኋላ ውል ሰጭ በሚባለው

እና

ውል ተቀባይ:- :-አድራሻ አዲስ አበባ ከተማ፣ ን/ስ/ላፍቶ ክፍለ ከተማ፣ ወረዳ 10 ፣ ስልክ ቁጥር ከዚህ በኋላ ውል ተቀባይ እየተባሉ በሚጠሩት መካከል ዛሬ 22/11/2014 ዓ.ም ውል ሰጭ እና ውል ተቀባይ ከዚህ ውል መጨረሻ ስማቸው በሰፈረው እና በምስክርነት በተገኙት ሰዎች ፊት የተፈረመ ነው።

በአዲስ አበባ ከተማ አስተዳደር የቤቶች ልማት ኮርፖሬሽን የጋራ መኖሪያ ቤቶችን ለማስተላለፍ ኃላፊነትና አፈፃፀሙን ለመወሰን በአዋጅ ቁጥር 19/1997 በተሰጠው ስልጣን መሰረት በአዲስ አበባ ከተማ አስተዳደር የጋራ መኖሪያ ቤቶችን ለተጠቃሚዎች ለማስተላለፍ ተሻሽሎ በወጣዉ መመሪያ ቁጥር 3/2011 ለቤቶች ልማትና አስተዳደር ቢሮ በተሰጠው ስልጣንና ተግባር መሰረት ከዚህ በታች በውሉ ስር በተካተቱት አንቀጾች የተጠቀሰው የ20/80 ፕሮግራም የጋራ መኖሪያ ቤት በልማት ተነስተው በምትክነት ለገዢ (ውል ተቀባይ) የተመደበላቸው በመሆኑ ገዢ(ውል ተቀባይ) የመኖሪያ ቤቱን በአዋጅ ቁጥር 19/1997 እና በመመሪያ ቁጥር 3/2011 በተደነገገው መሰረት የቤቱን ዋጋ ከፍለው ቤቱን ለመረከብ በመጠየቃቸውና ሻጭም በመስማማቱ ይህ ውል በሁለቱ ወገኖች ሙሉ ፈቃድና ስምምነት ከዚህ በታች በተደነገገው የውል አንቀጾችና አግባብ ባላቸው ህጎች መሰረት እንደ ሚከተለው ተፈጽሟል፡፡

አንቀጽ 1
የቤቱ ዝርዝር ሁኔታና የማስተላለፍ ስምምነት

የሽያጭ ውል ተቀባይ በአዲስ አበባ ከተማ አስተዳደር በልማት ተነሺነት የተመደበላቸውን የ20/80 የቤት ልማት ፕሮግራም የጋራ መኖሪያ ቤት እንዲተላለፍለት በተወሰነው መሰረት:- ቤቱ የሚገኝበት አቃቂ ቃሊቲ ክፍለ ከተማ፣ወረዳ 9፣ ቤቱ ያለበት ሳይት ኘሮጀክት ii ፣ የህንፃ ቁጥር ብሎክ ፣ የቤት ቁጥር ወለል ቁጥር 4፣ የመኝታ አይነት ባለ ሶስት መኝታ ቤት ፣ የቤቱ ስፋት 128.58 ካሬ ሜትር፣ የጋራ መጠቀሚያ ስፋት 0 ካሬ ሜትር፣ የቤቱ ጠቅላላ ስፋት 128.58 ካሬ ሜትር፣ የቤቱ ጠቅላላ ዋጋ 1028276.12 (አንድ ሚሊዮን ሃያ ስምንት ሺህ ሁለት መቶ ሰባ ስድስት ብር ከ12/100) የሆነ ቤት ነው። የቤቱን ቅድመ ክፍያ 205655.22(ሁለት መቶ አምስት ሺህ ስድስት መቶ ሃምሳ አምስት ብር ከ22/100) በኢትዮጵያ ንግድ ባንክ በደረሰኝ ቁጥር 258248 ገቢ ተደርጓል። ቀሪውን ክፍያ 822620.9 (ስምንት መቶ ሃያ ሁለት ሺህ ስድስት መቶ ሃያ ብር ከ90/100) የኢትዮጲያ ንግድ ባንክ በሚሰጠው 1 ዓመት የቸሮታ ጊዜ ሻጭ በሚያሳውቀው የኢትዮጵያ ንግድ ባንክ ቅርንጫፍ ጽ/ቤት በመገኘትና የ20/80 የጋራ መኖሪያ ቤት መግዣ የብድር ውል በመፈረም (በመፈጸም) በየወሩ በባንኩ የብድር አሰጣጥ ደንብና መመሪያ መሰረት ከላይ የተገለጸውን ቀሪ ዕዳ ለመክፈል ስለ ተስማማ ሻጭ ይህንን ቤት የከተማ አስተዳደሩን በመወከል ለገዢ ሸጧል፡፡ ገዢው የቤቱን የይዞታ ማረጋገጫ ካርታ ለባንክ ብድር በመሬት ልማትና አስተዳደር ጽ/ቤት በኩል ቅድምያ እዳና እገዳ ተደርጎ ለባንኩ እንዲላክ ተስማምቷል፤ ይህ የቤቱን ሙሉ ዋጋ (100%) የከፈሉትን አይመለከትም።