Challenges of moving into Medium Density Walk-up Residential Flats (MDWRFs). A case of Harare

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Declaration

I declare that this research report is my own unaided work. It is being submitted for the Degree of Master of Urban Studies in the field of Housing and Human Settlements to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.

17 January 2022

Signature

Date

Abstract

There has been an increase in the number of developments in medium density walk-up residential flats (MDWRFs) in Harare in the last decade and current policies are increasingly inclined towards multi-storey housing. The Zimbabwe National Human Settlements Policy of 2019 put a 40% minimum threshold of multi-storey housing in every housing project because of the benefits of this form of housing. However, multi-storey housing does not come without its challenges particularly to low-income residents. This study investigates the challenges that are faced with residents when transitioning into medium density walk-up residential flats with particular focus on livelihoods and assets, habitability and management of common spaces and facilities. In doing so, the study fills a research gap of scarcity in studies of MDWRFs in Zimbabwe and present recommendations for future planning and design of this form of housing.

The mixed methods research approach which combine open ended and closed ended questions in a single questionnaire survey is adopted. The study explores the residential environment using the experience and evaluation of the residents which in a way also reveals the strengths and weaknesses of the current form of MDWRFs. The study found out that the satisfaction level with the current form of MDWRFs is high and the major weaknesses that need to be improved on are alternatives to municipal water, communal spaces in building, maintenance of communal facilities, private outdoor spaces, local public facilities, fire safety, public security in neighbourhood and green areas and landscape.

Dedication

This research report is dedicated to my wife, Tracy and our children Natasha and Alex.

Acknowledgements

Firstly, I would like to express my sincere gratitude to my supervisor Mr Neil Klug who provided expert guidance and direction during the course of my research as well as all the teaching staff at the School of Architecture and Planning for influencing the way I view housing and helped shape the direction I chose when I selected my research topic. I give my heartfelt thanks to my classmates in the housing course who kept the fire burning through their encouragement, inspiration and emotional support.

I would also like to appreciate Mr Blessing Jerera for coordinating the residents of Willowvale flats which helped pave way for the smooth conducting of the surveys and the residents who accepted and participated in the survey. I would also like to acknowledge the financial support from Wits-TUB Urban Lab funded through the School of Architecture and Planning at the University of Witwatersrand, Johannesburg. The conclusions, views and opinions expressed in this research report are those of the author and do not in any way represent those of the funders.

Over and above all I would like to thank the Almighty God who took me through a difficult year where many lives were lost through the Covid-19 disease. Lastly to my family I would like to say thank you for the support and understanding.

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CoH	City of Harare
Covid-19	Corona Virus Disease 2019
GoZ	Government of Zimbabwe
HIV	Human Immunodeficiency Virus
MDWRFs	Medium Density Walk-up Residential Flats
NHDP	National Housing Development Programme
NHP	National Housing Policy
OM	Operation Murambatsvina
RTCPA	Regional Town and Country Planning Act
USD	United States Dollar
WHO	World Health Organisation
ZANU (PF)	Zimbabwe African National Congress (Patriotic Front)
ZNHSP	Zimbabwe National Human Settlements Policy
ZAR	South African Rand

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Chapter 1 Introduction

1.1 Introduction and background

Tonkin (2008:11) defines medium-density housing as referring, “to 40–100 dwelling units per hectare (gross), with various residential typologies including: semi-detached housing, row housing and three to four-storey walk-up flats.” There has been a significant increase in medium density walk-up residential flats (MDWRFs) in major cities of Zimbabwe after independence. It is a compact and viable housing form that has many merits, which include reduced consumption of land, energy, resources, services and facilities. It also has some positive impacts that include eye catching scenery, seclusion and serenity (Li, 2013). Development of MDWRFs gives a higher return on investment per unit area to developers, concentrates a high number of people in favourable locations, and construct extraordinary urban landscapes which is being pursued by all guardians of the city (Naz, 2007). The supply of medium-density dwellings will promote increased sustainability in communities, as was accomplished in age-old cities where most dwellings were densified, achieving dynamic, mixed-use habitats in proximity to fresh produce and other markets, main highways, and amusement (Tonkin, 2008). However, in Zimbabwe, controversy still lingers around this housing form. Criticism has been mainly on the various challenges that the residents face when moving into this form of housing (Li, 2013).

Since independence in 1980, Harare has been developing laterally causing massive urban sprawl. The housing units keep drifting away from existing infrastructure which has proved costly to provide. Harare has a housing deficit of 500 000 as of 2012 for a population of 1 485 231 (Muchadenyika, 2019). The backlog has been rising significantly over the years and the expectation is that it will continue rising in the coming years (*ibid*.). The current urban form will mean an increase in requirements of infrastructure for transport, water and energy supply, waste management which increase pollutants in the atmosphere. Most local authorities are running out of land for urban expansion and there is need for a mind-set shift from both local authorities and the public (The Herald, 17/12/2019). The economy has been in decline and urban areas have been growing as well as poverty in the last two decades. Notably MDWRFs developments championed by the government have been sprouting in areas such as

Willowvale, Mbare, Budiriro, Marimba Park and Mabelreign. Private sector projects have been scattered all around the city of Harare most notably in the affluent Avenues area. Even though Zimbabwe has its own unique characteristics and environment, it is left with no option but to follow other nations in adopting multi-storey housing development as a panacea to the housing crisis. Research on challenges of MDWRFs that specifically focus on Zimbabwe is scarce. This is not in line with the importance that is placed on this type of housing. In addition, in 2017, the government of Zimbabwe touted an enthusiastic plan to avail two hundred thousand affordable houses (of which 40% should be multi-storey housing) in the following five years with special preference given to civil servants. Studies of existing stock of MDWRFs in Zimbabwe has become a necessity given current and anticipated explosion of this housing typology.

1.2 Problem Statement

There has been a consensus across decades amongst researchers that the problem of housing in Harare has reached alarming levels (Rakodi, 1990; Kamete, 2006; Aghimien, Aigbavboa and Ngwari, 2018). This is evidenced by informal settlements sprawling on private land, wetlands and land reserved for recreational facilities. One of the strategies to consider as suggested by The Herald (2019/12/31) is to go for vertical development in the pattern of multi-storey dwellings because of the benefits associated with this form of housing. However, this housing form has its own challenges particularly to low-income groups. One of the problems that has been suggested by researchers with this form of housing the world over is that of habitability. (Li, 2013; Kennedy, Buys and Miller, 2015). Habitability problems has been as a result of health and comfortability design environment, energy consumption reduction, climate related lifestyle needs and residents' expectations of habitable characteristics of a dwelling (Kennedy *et al,* 2015). Yuen, Kwee, Apold and Earl (2006) argue that multi storey apartments do not cater for the necessities and sustenance of the impoverished other than providing them with a roof over their heads. People perceive multi-storey housing as a rigid type of dwelling that only the wealthy citizens can afford, as compared to one that is friendly to poor households whose lives revolve around informal activities (Lucas, 2016). Graham (2005) criticised the multi storey housing in that it bars the poor urban households the flexibility to extend the physical structures

particularly when household size increases. In South Africa context, households' ability to conduct other income-generating activities like renting backyard dwellings, informal trading and gardening is limited (Mabasa, 2017)

In Zimbabwe, various interest groups are enquiring and assessing new housing typologies and environment with a novel foresight (Magwaro-Ndiweni, 2011; Grey, 2012; Chigwenya, 2019; Muchadenyika, 2020). However, limited studies have focussed on livelihoods, habitability, management of common spaces and facilities and the location of neighbourhood that poor find themselves in. In addition, the beneficiaries of medium density housing in Zimbabwe has been biased towards civil servants who earn a monthly income which is likely to reveal a unique set of challenges. A research gap exists which needs to explore the challenges experienced by residents as they move into this form of dwelling.

1.3 Aim

To investigate the main challenges faced by residence moving into medium density walk-up residential flats in Harare.

1.4 Main Research Question

What are the key challenges faced by residents when moving into medium density walk-up residential flats in Harare?

1.4.1 Sub Questions

What are the problems and opportunities of residing in medium density walk-up flats residential environment in Harare?
What are the residents' evaluations of the challenges faced when living in MDWRFs in Harare?
What are the strengths and weaknesses of the current form of MDWRFs according to residents' evaluation in Harare?

What recommendations can be made to improve the challenges of residents of MDWRFs in Harare?

1.5 Research methods/design

The mixed methods approach was employed in this research. This has been described as, “a procedure by which the researcher mixes two or more methods with different meta-theoretical assumptions (commonly qualitative and quantitative) in a single study in order to understand a research problem” (Moyo, 2017). One would not engage two separate processes of data gathering but would collect two strands of data at the same time which save time and resources. This was a reasonable choice in order to counter the shortcomings that were brought by the Corona Virus Disease 2019 (Covid-19) pandemic. The researcher further noted that the response rate of the probing questions was very low in the questionnaire survey and decided to complement the data with observations and photographs taken from the medium density walk-up residential flats environment.

The execution began with a desktop survey to get in depth information on the challenges faced by the residents as well as the study area. I then conducted a questionnaire survey to build on to the literature review. The research instrument was distributed to household heads through emails and the WhatsApp platform. The residents were informed by the community leaders prior, about the research through the community WhatsApp group which they use to coordinate security and other housekeeping issues in their neighbourhood. The research instrument consisted of closed and open-ended questions as these are regarded as most suitable and most effective in understanding perceptions of the respondents and experiences (Creswell, 2003). The participant can give additional information on a particular response. The additional information aided the research as it clarified why certain aspects of the research were ranked high or low. The questionnaire functionality was tested with the aid of colleagues who are conversant with this form of research design who gave an input and helped perfecting the questionnaire before it was used for data collection. In addition, I also used previous experience and that I gained from getting involved in researches of a similar nature. Probabilistic sampling was used in this research as it

gives every person in the population a fair chance of being included in the sample. To be specific the sampling method used is stratified random sampling. The sampling frame from which the participants that were selected at Willowvale flats is 288 households. The residents were stratified according to the number of the floor that they reside in the residential building. There are four floors in each building. A total of 72 questionnaires were distributed at Willowvale flats. 24 were distributed to residents on the ground floor, 24 were distributed in the upper most third floor and the other 24 was distributed to residents in the first and second floor. This distribution assisted in ensuring that the population is represented in the sample as resident's experience different challenges in different floors. A total of 30 questionnaires were returned giving a response rate of 41,66%.

The steps taken to analyse statistical data were coding and defining the variables, data summarisation, entering the data on a worksheet, cleaning the data, obtaining the mean and percentages as well as comparing the main group and sub factors. The mixed methods questionnaire design required that the quantitative data be analysed separately from open ended questions. Data from the open-ended questions was used to describe the trends, strengths and also the weaknesses of residing in MDWRFs. Following analysis of the data from the questionnaire survey, I undertook a transect walk in the Willowvale flats neighbourhood. This provided me with valuable observations on the present challenges that the residents are facing. In addition, the observations helped to support the results that came from the questionnaire survey. I also took photographs of the residential environment which helped support the strengths and weaknesses that came out of the questionnaire survey.

1.6 Ethical Considerations

"Ethical research practice refers to values and rules of conduct in research and represents the responsibility of the scientific community to the ideals of the pursuit of knowledge and principled sensitivity to the rights of the research participants" (Vanderstaay 2005). This research followed the well-established and accepted laid down procedures by the University of the Witwatersrand guidelines for conducting research that involve human subjects. Ethics clearance certificate was sought from

the University of Witwatersrand Ethics Research Committee (Protocol number SOAP064/06/2020, see appendix D) and obtained prior to conducting research. There is need for handling the participants carefully as studies like these often require personal information such as what happens inside the home space as well as the way of life of the household.

Informed consent of the participants was requested, a participant information sheet and a consent form were signed prior to conducting survey. This involved consensual and voluntary participation and giving assurance to the participants on confidentiality and anonymity. As confirmation that the nature of the research is understood, the participants were requested to sign and return the informed consent form that was sent together with the participant information sheet which has the contact details of the researcher. In addition, the work of other people cited or quoted was acknowledged accordingly in this research.

1.7 Research structure

- Chapter 1 introduces the research as well as giving a brief background of the investigation and the justification. In the same chapter problem is also defined, the aim, research questions as well as the research design or approach are given to enable the reader to understand how the research was carried out and how the findings were reached.
- Chapter 2 gives a comprehensive literature review on the key concepts and issues found in medium density housing. Available work reported on challenges that are faced by the residents of MDWRFs and the scarcity of research in the context of Zimbabwe is highlighted. The challenges affecting residents are summarized under three distinct areas of livelihoods and assets, management of common spaces and facilities and habitability of the physical environment. Strengths and weaknesses of the current form of MDWRFs are also explained.
- Chapter 3 outlines the housing situation in Zimbabwe from the pre-independence era to the present day together with the reforms that took place over the years.

- Chapter 4 is the research context which includes the research location as well as the demographics and socio-economic conditions in the area.
- Chapter 5 contains the presentation of the findings and analysis of the data collected from the residents of MDWRFs in Harare. The strengths and weaknesses of the MDWRFs are also explained.
- Chapter 6 gives the conclusion to the research and recommendations which can contribute to the improvement of the MDWRFs environment and areas of future research will be outlined.

Chapter 2 Literature Review

2.1 Introduction

In this chapter various aspects which make up the medium density walk-up residential environment are explained. These are very important in order to highlight the researcher's understanding of the subject being researched. The review of literature is also carried out to locate the subject within a wider range of literature, promote further the work carried out by previous researchers and fill the gaps that would have been left out by existing studies (Creswell, 2003). The description and understanding obtained in literature also provides the researcher with the basis for analysing the data obtained in the surveys and assists in coming up with an interpretation that has no bias on the findings. The chapter begins with explaining medium density housing, its adequacy and sustainability. The concept of densification is also explored as it forms the basic principles which led to the introduction of medium density walk-up residential flats (MDWRFs). The last section explains the challenges that are faced with the residents of medium density residential flats which are classified under three groups namely livelihood and assets, habitability and management of common facilities and spaces. Strengths of MDWRFs are also explored in this section. The challenges form the research conceptual framework which positions the study in the wider picture. The review also highlights resident's experiences and evaluation of their residential environments from previous researches and at the same time identifying research gaps.

2.2 Themes and Concepts in Housing

2.2.1 Housing Concept

It is important to explain the concept of housing because the key focus area of this research which is medium density walk-up flats is a housing form that came about as a result of trying to find an ideal solution to the housing challenges. Defining housing gives an understanding and helps the evaluation of medium density walk-up flats (MDWRFs) on whether they satisfy all the criteria of housing that is adequate and sustainable.

Housing has been described as an economic good or an asset that has potential to give a return on investment over a period (Smith, 1776; Ricardo, 1817). Housing is an asset that is fixed which can be leased or owned and can be equated to capital like machinery (Marshal, 1890; Jevons, 1871). Grimes and Orville (1976) elaborated that in the old days housing was regarded as physical and in many countries, policies focused on the provision of the physical dwelling with a special focus on keeping the cost of building to a minimum and at the same time meeting quality standards. The approaches to housing have changed over time in line with changes in the political economy as well as other fields. The concept of housing can be equated to that of a house which Henilane (2016:169) described as, “a specific and relatively limited, physical, biological socially closed place where people and groups of people can live their biosocial life, by receiving services, performing house chores and other biosocial activity.” Attention is increasingly being targeted at striking a balance between the costs of housing (acquisition, construction or maintaining it) and associated benefits of having a house which are comfortability, convenience, energy efficient (*ibid.*). Sidelska, (2014) considered housing as an important aspect of a regions’ development economically and socially and defines housing as “real estate or its part in the building that is used for dwelling purposes all year round”.

From the above definitions, I can conclude that housing is multi-faceted, and the most relevant definition is that it is an economic good and a livelihood asset that provides shelter and caters for the social and biological well-being of the residents. An ideal form of low-cost housing should have an element of density in a way that does not take away the adequacy and sustainability elements which is the focus of the next section.

2.2.2 Adequacy and sustainability housing

Shelter adequacy has been explained by the Habitat Agenda as follows:

"Adequate shelter means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate

basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost. Adequacy should be determined together with the people concerned, bearing in mind the prospect for gradual development. Adequacy often varies from country to country, since it depends on specific cultural, social, environmental and economic factors. Gender-specific and age-specific factors, such as the exposure of children and women to toxic substances, should be considered in this context" (United Nations Centre for Human Settlements, 1997: paragraph 60).

Housing is pivotal to the concept of sustainable development and interrelates as part of the society and its surroundings. Problems which come as a result of housing provision such as natural resource consumption, waste production, pollution to the atmosphere and water bodies are solved by the introduction of policies that promote sustainable housing. These problems need to be addressed because in the end housing will then become a victim of the effects of climate change which result in natural disasters (Golubchikov and Badyina, 2012:3). Sustainable housing must be affordable in order to achieve transformation in this area. In addition, these affordable houses must create positive impacts to the environment and social life. Houses must be socially enhanced, environmentally friendly and these practices must be interconnected and carried into the broader city/settlement systems (*ibid.*).

2.2.4 Densification

According to Turok (2011:472) density is bi-fold and can be measured using “physical structures” and also “the actual resident population”. The former concentrates on dwellings found on a hectare of space without considering the size and quantity of rooms that can be habited while the later focus on how many people are found per hectare. In a bid to increase the population density of an area, planners give most of the attention to physical density. The relationship between the two varies over a period as the composition and size of households changes (*ibid.*). Dewar and Uytenbogaardt (1991:43) argued, “that in order to create high performing cities, the form of the city must be compacted in order to allow development over time that works at the scale of the pedestrian”. One of the most important reasons for densification is to increase the

“generative capacity of urban systems” (*ibid*:43.). Small and upcoming businesses require opportunities for business to be compacted in a small area in order to reduce the costs of doing business. “Another reason for densification is that high levels of social and commercial services can be more efficiently, conveniently and equitably accessed when an urban area is more compact (Brown, 2016:10).” In addition, these can be accessed on foot than by vehicular transport. At the same time public transport systems that are viable are likely to succeed in a dense city than that which is sprawling because the high population will add to the systems efficiency.

Turok (2011:474) identifies six reasons why higher densities should be promoted which are, “lower resource consumption, viable public transport, more equitable access to opportunities, greater economic efficiency, improved housing choice and more liveable and safer places”. Higher densities close to the city centre promotes integration and social inclusion. Low-income groups will have a fair share of employment opportunities and the city becomes diverse culturally. Some standards will need to be relaxed to accommodate low-income groups. In practice this will mean that medium density walk-up flats should be built as they are more affordable and easier to maintain when compared to high rise buildings. This takes us to the next section where medium density walk up residential flats are discussed.

2.2.5 Medium density housing

Increased density in residential areas with no urban containment also increase the number of units of affordable housing firstly in the sense that housing supply increases reducing prices and secondly is the suggestion that high density housing is found in the affordable low-income areas of the city. As supply increases through densification the number of units per given land area also increases which means that the cost of land for each dwelling unit is reduced (Aurand, 2010). Most neighbourhoods consist of a variety of housing types with different residential densities and there is a general agreement amongst researchers that given a choice, households prefer neighbourhoods with low densities (Shultz and King, 2001; Song and Knaap, 2003 cited in Aurand, 2010). This in turn means that there will be less demand for housing in areas with increased densities with no restrictions in land which result in a decrease

in prices and increase the number of affordable units for low-income households (*ibid.*).

Density in residential areas can be increased by constructing structures with multiple units. These multi-unit structures are likely to be smaller, more affordable and offer less services (Aurand, 2010). So, in order to increase the number of dwellings in low-income areas there is need to first introduce various types of housing. This will cause a decrease in the number of single family detached housing and a surge in the dwelling forms that use land more intensively because they can supply at competitive prices as they enjoy economies of scale. Consumers of housing that previously preferred single family detached units will shun them because of their high price. In areas with high urban containment, the positive relationship may not be as strong as in low-income areas because high income families may demand higher quality facilities to be made available in the multi-unit structures in order to compromise giving up the single-family units. The inclusion of the facilities such as lifts, and other high-quality building products will make these housing units less affordable to households with low incomes (*ibid.*)

“Medium density housing refers to increased gross residential density in urban areas by means of formal housing development. Medium-density housing, defined in terms of dwelling units per hectare (du/ha), is approximately 40–100 du/ha (gross)” (Tonkin, 2008:12). Correa (1988 quoted in Brown, 2016) argues that the best alternative is not modern-day high-rise apartments common in the developed world but suggest compaction or densities that are high in the form of low rise or what is commonly referred to as medium rise. Finding optimum densities is very complex. It is important to note that as the height of buildings increases the density of the neighbourhood does not increase by the same rate making it not cost effective. It is therefore important to find a density that can balance between housing provision and provision of community spaces which are in line with the densities (*ibid.*). A harmonious mix of different types of housing which permits the residents to have a choice and to be able to match the specific needs of each household is therefore recommended (Brown 2016).

2.2.6 Qualities of Medium density housing

The key guidelines put forward by Tonkin (2008) have their basis on performance and standards of an urban area. “Beneath the underbrush of particular situations and special groups, we find some common ground – fundamental criteria shared by all human users” (Lynch and Hack 1984:72). The quality of an urban environment must be determined by the residents who use it and experience it in their day to day living. Cities must always exhibit desirable traits over a long time so that they can remain attractive to the inhabitants and end users of the environment. The most important qualities are summarised in table 1 below.

Table 1: Performance measures for medium density housing environments

Balance	An over-arching quality that embraces all other qualities
	Encompasses the quality of 'sense of place' ("how we perceive an image and feel") acknowledging natural, cultural, social, historical, and spatial distinctiveness of a certain pace or time.
	Balance in the interaction between people is evident in the way in which spaces, places, channels of movement and institutions contribute positively to the interactions between people.
Integration	Integration of processes, institutional and urban management arrangements, role players and stakeholders, various sectors, and physical aspects that contribute towards the creation of medium-density housing environments.
	Different parts and elements must be integrated to ensure optimum performance and satisfaction of needs.
	Medium density allows for a greater range of opportunities and facilities to be generated with increasing agglomeration
	In positively performing medium-density housing environments, poorer residents have access to opportunities and facilities generated by the wealthy.
Freedom	Encourages and supports the highest degree of freedom for individuals to act in a medium-density environment.
	High degrees of freedom are achieved through provision of stimulating, complex and diverse environments: medium-density housing units close to employment opportunities, adequate public facilities, safe and efficient public transportation, safe recreation areas and usable open space and meeting places.
Equity	Enhances and promotes urban activities and processes of urban life.
	Through affordable, well-located medium-density housing, low-income citizens are also allowed easy access to urban opportunities
Intensity, diversity and complexity	Densification and compaction are vital preconditions for high performance urban environments that provide the necessary complexity, diversity and intensity.
	Presenting diverse opportunities over a relatively short distance, with high population thresholds created by medium-density housing to support urban activities and opportunities.
	Urban dwellers are able to exercise real choice when they can choose to live in high-intensity environments without completely sacrificing access to privacy, quiet and nature, or in lower-intensity environments without totally sacrificing access to the benefits of urbanity, that is, high levels of service, opportunity, convenience and interaction
Densification and compaction	Compact urban environments offer higher levels of support per facility, thereby reducing unit cost of social and other services
	They offer greater range and higher levels of social and commercial services, with more equitable and convenient access especially for pedestrians
	Public transportation is more viable in higher-density than in sprawling environments.
	Places of economic opportunity are more widespread, which benefits small economic enterprises
	Greater diversification and specialisation occur, as agglomeration and scale economies stimulate the generations of new economic opportunities
	In order to limit sprawl people must be able to choose between intensity ranges, convenience and arcadianess. Critical is to achieve minimum densities sufficient to support basic services.
Community	Sense of identity and belonging.

	Existence of primary places where interaction and communication takes place is important as affect processes of urban socialisation, people's sense of identity and richness of urban existence
	All needs cannot be met at household level: communal spaces provide experiences and opportunities
	Supports social ties in medium-density housing environments
	Complex social and cultural fabric should find freedom of expression in the built environment
Sustainability	Sustainable development encompasses interdependent and mutually reinforcing pillars - economic, social and environmental, physical and political
	It relates to balancing the need for economic and social development so that society, its members and its economies are able to meet their needs and express their greatest potential in the present, while preserving biodiversity and natural ecosystems and planning and acting to maintain these ideals in a very long term
	It should be a central guiding principle of government and private institutions, organisations and enterprises, as the declining state of the human environment and natural resources has negative implications for economic and social development.
Urban Generation	A medium-density environment sufficiently meets the needs of its inhabitants if it generates and creates necessary preconditions for economic, social, cultural and recreational opportunities and facilities
	This is achieved through the agglomeration of people, and the way the urban environment is structured
Access	Spatially, access should be maximised through the availability of opportunities and facilities within walking distance of medium-density housing or the vicinity of an efficient and co-ordinated public transportation system.
	A-spatial barriers (economic, social, political, regulatory, attitudinal and others) need to be broken down to allow people to maximise the benefits provided by medium-density housing.
	To ensure equity, existing opportunities and facilities (to sustain livelihoods, for example) must be accessible to the majority (often the poorest) of the urban population.
Promotion of collective activities and contact	Places where formal and informal interaction and communication take place usually offer the widest range of opportunities. Attention should be given to the provision of these spaces in medium-density housing environments
	Emphasis should be placed on the collective activities and social networks provided as part of medium-density developments as they impact significantly on residents' quality of life
Individual need	Pre-conditions to meet individual needs such as physical, social, psychological and sensory needs must result in freedom of choice and action for residents to engage constructively in their housing environment.

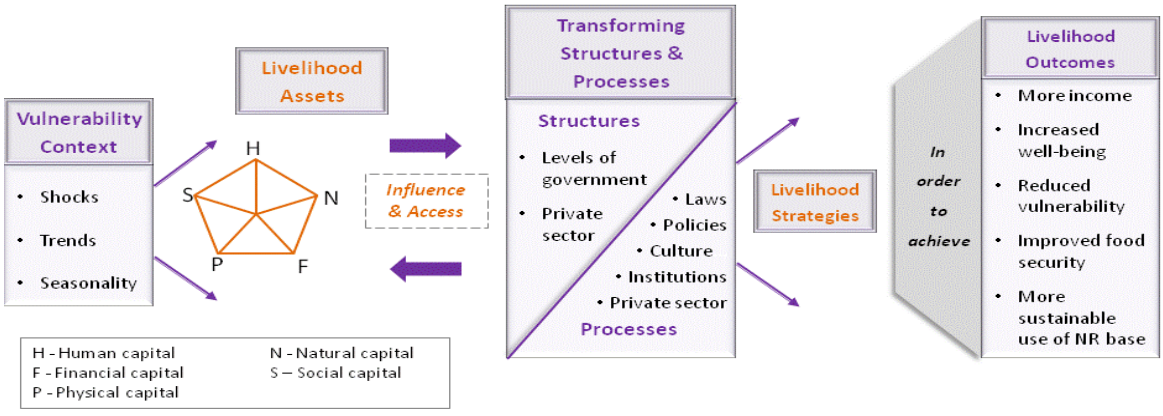
(Source; Tonkin, 2008:25-27)

2.3 Contemporary Issues of Medium Density Walk-up Residential Flats (MDWRFs)

2.3.1 Housing as a Livelihood Asset

"A livelihood comprises the capabilities, assets (stores, resources, claims, access) and activities required for a means of living, a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generations and which contribute net benefits to other livelihoods at the local and global levels and in the short and long term" (Chambers and Conway, 1991:6). The "sustainable livelihoods approach" looks at the goals, deliverables and preferences in terms of activities for development. It helps identify preferred options for implementation based on the needs and preferences of the households. Attention is brought to the fact that people have skills, resources, social capital and can have an influence over institutions that are central to development (Serrat, 2017).

Figure 1: Sustainable livelihoods framework



Source: Department for International Development, (2000).

2.3.2. Livelihood Challenges of Medium Density Walk-up Residential Flats

Challenges related to livelihoods in MDWRFs are grouped into two categories namely income generating activities and supporting infrastructure and spaces.

a. Income generating activities.

Space/room renting offers the household an opportunity to earn an extra income. According to Mayerson (2014), the phenomenon of subletting also offers both the host household and the tenants' access to city livelihoods at a lower rate. Subletting in multi storey housing will mean that the dwelling will have two households and result in reduced privacy in the way space is used. Lower prices are often paid where the unit is shared amongst a lot of people (*ibid*.). Other residents run tuck shops from their homes though there is a risk of bringing strangers to your home (Mayerson, 2014). According to Charlton and Meth (2014), in as much as the practice of using this housing as an income generating asset is perceived as defiance by the government; the people view it as a way of embracing the responsibility of living.

b. Supporting infrastructure and spaces.

The poor often rely from informal businesses that are operated at home in order to avoid renting of spaces. In multi storey housing residents often end up invading common spaces. Businesses such as panel beating workshop, tailoring, were common in South African multi-storey housing (Mabasa, 2017). Some people even territorialise the courtyards by fencing the courtyard next to their dwelling. Storage facilities are often overlooked in multi-storey housing as developers seek to reduce costs. The safety of the residents is compromised if objects are stored everywhere without considering their hazardous nature. These can cause emergencies and become hazards in the life of the residents (Bennett, 2010).

According to Zhu and Chiu (2011), the standard of life is affected directly by the expenses that a household experiences in the long run. Services such as water, electricity and gas are increasing time and again which cause a huge burden to maintain life in multi-storey environments. In addition, facilities and spaces that are

shared need to be taken care of and maintained by organisations such as garden service which will lead to another property cost. The additional expenses will in the end need to be shared amongst the households (*ibid.*).

Experts in water indicate that most cities in Africa do not have the ability to develop water and environmental utilities in line with the rapid urbanisation taking place (Mangizvo and Kapungu, 2010; Makwara and Tavuyanago, 2012). The rate of urbanisation in Southern Africa is among the highest globally which put a lot of pressure on the water and other related facilities (Makwara, 2011). Harare is experiencing water challenges in terms of both the quantity and quality of the precious resource. Multi storey buildings have not been spared of these challenges. Their water supply is normally divided into zones that differ in pressure required for a reliable supply. The first two to three storeys can be supplied by water pressure from the municipal main directly but as you go up pumping is usually required. This becomes a challenge especially in a country with an unreliable electricity supply and facing economic challenges.

Research that have been carried out by the Organisation for Economic Cooperation and Development (OECD), (2010) indicate that OECD countries and developing countries are facing huge challenges that has to do with maintenance and development of infrastructure related to water. Part of the solution that governments will need to consider to meeting policy objectives on water is to use alternative water systems. Harare has been facing water shortages and has resorted to alternative sources for a long time. Rainwater can be harvested; boreholes can be drilled, and the poor often resort to digging wells. This is often difficult in multi storey housing as the residents do not have the land.

When planning for multi storey housing, it is also important that public facilities that includes schools, grocery stores, crèches, youth centres are included. Some countries they have regulations that make it compulsory in the layouts before approval. Research has shown that these facilities for day to day living need to be provided within a short walkable distance. This determines the success of a multi storey residential estate (Turkington *et al*., 2004; Yuen, 2011).

2.3.3 Habitability in medium density housing.

The Merriman Webster Dictionary defines habitability as, “capable of being lived in, suitable for habitation”. Creating a living environment that is habitable has been the prime objective from the early theorists of the garden city to present day sustainable urbanism. “The action-oriented planning and design have always been based on the professionals’ expertise, experience and even utopian ideas, such as the modernist theories of Le Corbusier and the Charter of Athens, which resulted in a number of mismatches between good intentions and the end outcomes” (Jacobs, 1961 cited in Li, 2011:11). Creators of the environment such as designers, policymakers, planners and developers were prompted by the way urban development was evolving and provided a shift from the form, the behaviour and demands of the masses which were chaotic and unpredictable.

2.3.4 Habitability challenges of Medium Density Walk-up Residential Flats (MDWRFs)

a. *Habitability in the dwelling unit and building.*

Every habitable environment should be safe to live on which is one of the most important aspects. Multi storey living present its own safety challenges especially for those living in the upper storeys. Gifford (2007) summarizes that multi-storey residential apartments bring with, a general fear and a feeling of being unsafe from problems such as infrastructure failure for example electricity and water and fire safety. The respondents interviewed by Haber (1977) indicated that they would prefer to reside on the floors that are lower because they fear their safety in terms of fire.

Another important element on the habitability of the building environment is that of public security. Many scholars have criticised the residential environment in the area of security. All the elements of vandalism combined with others may filter down and result in the concentration of poverty in these areas and create a new form of slums (Bier, 2001).

Residents need to relate well with their neighbours, and they need to feel a sense of community and neighbourhood, but studies are increasingly showing that the social relations of residents are influenced negatively by the multi-storey environment. Multi storey living separates people from each other and they live like they are sealed in a cell where they know little information about those that reside immediately above or below them (Jephcott, 1971). In poor communities this may result in poor sense of identity and belonging to the community and depletes social capital which may be helpful in difficult times (Gifford, 2007).

Another important aspect of basic living necessity of multi storey housing is the system of infrastructure which makes the residential environment habitable. These include the system of water supply, electricity and drainage. Wastewater need to be removed timeously to avoid outbreak of diseases that spread rapidly hence the need for an adequate system of drainage. In some cases, it will be a requirement in the drainage system to separate rainwater so that it can be reused for other purposes. The toilet system and facilities also need to be adequate so that the spread of diseases and bacteria can be avoided (Hung *et al.* 2006).

b. Habitability in the residential estate and neighbourhood.

A garden house and an apartment in a multi-storey block are different in that the latter does not have private spaces externally. The external outdoor environment is very important in that human instincts likes to connect with it. Most multi storey housing estates have green areas that are shared but these cannot replace private and daily needs which include drying of clothes, gardening and recreation when the weather permits (Huang, 2006). Young children and the elderly people need the external private spaces to play safely and other activities that suits the outdoor environment (Duffy and Wilson 1985).

Urbanism and nature are combined to create living spaces that are healthy, enriched and civilised through green areas and landscape. This is especially so in multi storey living because of the vertical nature of the buildings and increased densities (Yuen, 2011). The home and the surrounding environment are the main areas where many of the residents relax and play which basically means a significant amount of time is

spent there (Forrest and Williams 2001). The multi-storey living environment cannot be divorced from the landscape and green areas which means that they must be provided in high quality.

The daily travelling and commuting of residents of multi storey residents are closely related to the traffic conditions in the neighbourhood. Main forms of traffic are pedestrians, private cars, bicycles and mass public transit systems. High densities of people in a neighbourhood may lead to congestion of traffic and unavailability of public transport during time of peak movement of the residents. This is a major challenge in areas that have been densified and improper planning may also lead to excess of transport at off peak hours. Traffic congestion in most cases lead to high stress levels, aggression and accidents (Jackson 2003).

2.3.5 Housing as communal facility

Omar (2008:2) describes living in low-cost communal areas as, “a situation in which the residents knowingly and willingly share the living environment and facilities. Communal living provides a good way to serve each other in a variety of ways. Public participation among the residents in communal life would make an impact on the community. Housing represents the foundation of creating a happy family and a communal living environment”. In multi-storey living sharing facilities, spaces and services is unavoidable. A very distinct characteristic of living in multi-storey housing is that almost every part of the living environment is shared (Kennedy, Buys and Miller, 2015). This include the walls, the ceilings, the floors, entry points, parking, laundry areas. These need to be properly managed to avoid conflict that comes with breakdowns.

2.3.6 Challenges of managing communal spaces and facilities in MDWRFs.

Challenges related to management of common spaces and facilities include public security situation in neighbourhood, domestic waste collection, maintenance of communal facilities, state of in-building communal spaces, environmental noise and cleanliness. Management and maintenance of security in the neighbourhood is mainly the responsibility of the local authorities and it does not fall directly on the scope of immediate community managers. The security status of an area directly influences the

security of the residents. If people perceive the neighbourhood as unsafe, the result is that they will be dissatisfied with the area. This will impact on the personal wellbeing as fear will threaten the health of the residents and impact their behaviours socially (Braubach 2007). Some people will be forced to change their way of living and chose not to participate in community activities. This behaviour will reduce links with neighbours and reduced community engagements (Raw *et al.* 2001).

The use and standard of shared spaces within a multi storey building can be affected by collection of garbage. Mismanagement can lead to bad odours and possibility of diseases to be transmitted (Kazaz and Birgonul 2005; Baldwin *et al*. 2009; Wong 2010). It is very important to control waste disposal because it improves the health of the community. Improper disposal of waste exacerbates environmental degradation and can lead to infectious diseases (Raw *et al*. 2001). The daily upkeep of common facilities and areas depends on professional agencies any other form of arrangement that would have been made by the residents. Well maintained areas are ranked high in terms of habitability. It has been found out in many researches that behaviour that is antisocial in public spaces is directly linked to the maintenance and management of entry and exit points and other facilities (Cozens *et al.* 2001; Shaftoe 2007).

Communal areas in multi storey housing include staircases, courtyards etc. and they must be well lit, ventilated and accessible to ensure confidence that they are safe. These are the areas of concern, particularly when households have young children or people in their old age dwell in these walk-up flats (Seik, 2001; Appold and Yuen, 2007; Yuen, 2011). These places need to be well ventilated for good quality air circulation and have adequate lighting in the areas that are shared within the building to improve the safety of the residents and encourage communication between neighbours.

Another area of importance that is closely related with neighbourhoods that have high densities is that the environment must be free from noise pollution and be clean generally. Most high-rise buildings are located close to highways for ease of accessibility and these areas are prone to noise from vehicular traffic. This may cause annoyance to the residence (Lau 2006). The environment need to be kept clean to

avoid spreading of diseases like cholera and typhoid which breed in dirty environments (Ranson 1991).

2.4 Strengths of Medium Density Residential Walk-up Flats (MDWRFs)

The previous section looked at the challenges faced by residents of MDWRFs in detail. However, it is important to note that this form of housing does not come without its advantages. In studies on medium density housing carried out on Reconstruction and Development Programme (RDP) units in South Africa, it was found out that this form of housing serves as “a home space, an income generating asset” and a lot of several other opportunities offered by the house to the residents (Mabasa, 2017). This applies to most of the developing world especially in Sub Saharan Africa where most low-income households live below the poverty datum line.

The housing unit is a place where people conduct their day-to-day activities, express themselves in whichever way that makes them comfortable and a place of decently raising a family. This is further enhanced particularly when the dwelling does have tenure security and ownership as it allows the residents to live freely without fear of eviction. Most of the beneficiaries of government sponsored homes were previously renting and this was far away from giving them a sense of belonging identity and homeliness. The home space also improves the standard of living for the families (Charlton and Meth, 2016), particularly when there is security of tenure (Tissington, 2011) because the residents will be able to feel free to invest in the home without fear of eviction.

The other advantage of medium density walk-up flats as a form of housing is that it can be used as an income generating asset. These include renting out of rooms to other people who need shelter. The cost of renting is dependent on the number of people who dwell in the apartment. The higher the number of people who reside the lower the cost of a room (Mayson, 2014). The house can also be used as a tuckshop which sells small wares that are required on a day to day basis by the people in the same building (Mabasa, 2017). Running a tuckshop comes with its challenges as strangers invade the privacy of the home when they come to buy in the tuckshop, and

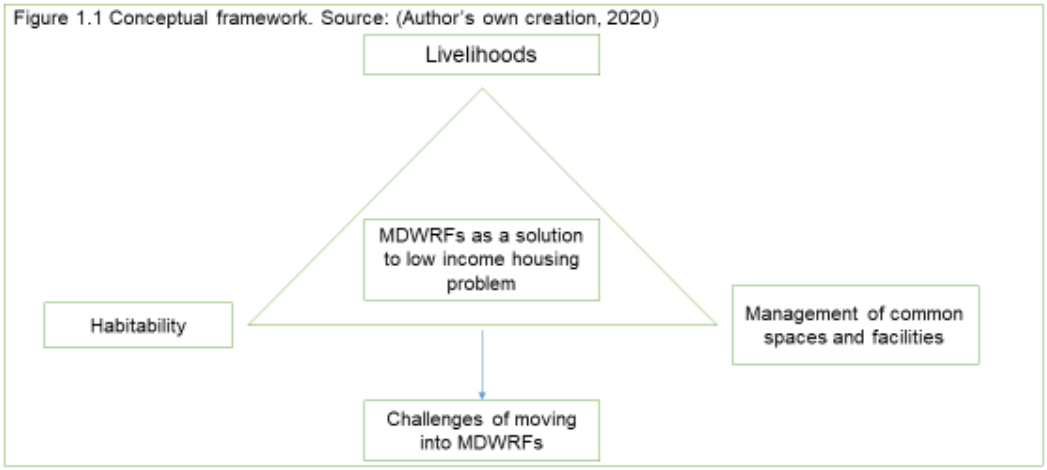
this poses a safety risk as customers cannot only be restricted to the ones you know (*ibid.*). Human services such as traditional doctor services, running a nursery and crèche, extra classes for high school learners can also be offered in the home space and earnings are used to support the livelihoods of the households.

The other strength of medium density residential flats is that the residents can use the common spaces available in various ways. The spaces include courtyards and sidewalks which have been adopted for use as workshops for activities such as panel beating, motor repairs, tailoring among other uses (Mabasa, 2017). The advantage of using the spaces outside is that the space is bigger, open and the user does not have to pay any rentals. The business also benefits from a ready market in the form of the residents of the flats. The courtyards are also used as a place of socialization and extending the household functions (Llewellyn-Davies, 2004). Lastly medium density walk-up flats as a form of housing improves conditions of living through provision of basic services such as water, electricity and basic sanitation considering that some of the residents will be coming from informal settlements where there is lack of basic services.

2.5 Research Conceptual Framework

Having thoroughly looked at existing literature, a conceptual framework has been developed by the researcher as shown in figure 3 below. In such a conceptual framework key concepts of the study are put forward which help position the study in the bigger picture (Henning, 2004). Residents of MDWRFs face challenges from different angles but of greater importance to urban planners, this study will focus on livelihoods and assets, habitability, and management of common spaces and facilities. Conclusions will be drawn depending on resident's experiences and recommendations are made accordingly.

Figure 2: Conceptual framework



Source (Author's own creation)

2.6 Conclusion

This chapter presented various main themes and concepts in housing studies and discussions from previous studies on the challenges that the residents face when moving into medium density housing. It is important to note that the housing concept need not be viewed only as shelter, but focus must also be put on the surroundings. This brings us the consideration that a dwelling need to be adequate which means having all the necessities that support life. Urban planners are advocating for densification in order to prevent urban sprawl, but they are still debating on the size of density that saves on costs and gives maximum benefits to residents in terms of presenting minimum challenges. Careful study revealed that higher density housing does not imply high-rise housing, but similar densities can be achieved in limited storey walk-ups such as three or four at the same rate as in high-rise tower blocks. This is what Tonkin (2008) advocated for and refer to them as medium density housing. Major challenges that residents of multi storey housing face have been discussed. The challenges are grouped into three major themes which are livelihoods and assets, habitability and management of common facilities and spaces. It is under these main

themes that the challenges faced by the residents were summarised based on residents' experiences documented in past researches. This formed the basis of the evaluation of the challenges that the residents face. A deep insight into the advantages of MDWRFs has been explained in this chapter. The review on documented past researches also highlighted the scarcity of the research on MDWRFs in the context of Harare.

Chapter 3 Housing Situation in Zimbabwe

3.1 Introduction

The past and the present housing situation in Zimbabwe is critically analysed and summarised in this chapter. Approaches to development that were used by the succeeding governments in the periods before and after independence of 1980 are also provided together with the trajectory that was followed in housing delivery. The background assists in providing a very important foundation for understanding the country's housing challenges. In a bid to solve these challenges various solutions were put forward and one of them was the construction of Medium Density Walk-up Residential Flats (MDWRFs). It is important to understand the background to place medium density housing and the challenges that the residents face within a broad and complex environment of housing in Zimbabwe. The understanding will assist in coming up with a relevant approach to improve the livelihoods, habitability and management of common spaces and facilities of people living in MDWRFs.

3.2.1 Housing Policies prior to Independence

Several pieces of legislation that were segregatory in terms of land ownership were passed during the colonial period (Tibaijuka, 2005; Chaeruka and Munzwa, 2009). The Native Locations Ordinance (No 30 of 1930) made employment status the major factor determining a person's status on tenure. The Land Apportionment Act (No 30 of 1930, brought back into law in 1941) virtually gave ownership and control of all urban land in the hands of whites. Housing for blacks who were regarded as temporary residents in towns and cities was then the responsibility of the government (Patel, 1988; Mafico, 1991). Additional legislation which guided the governance of townships was also put in place and comprise of the Native Registrations Act of 1936 and the Native Passes Act of 1937. These acts disallowed inter urban as well as intra urban movements for blacks. Similarly, the Registration Act of 1946 and the African Urban Areas Accommodation made the situation worse by further excluding blacks from urban areas (*ibid.*)

After the Second World War there was increased construction of rental accommodation for black Africans in towns and cities (Patel, 1988). 1946 saw the establishment of the Department of African Administration which started programmes in housing construction with the initial schemes being hostels for single migrant labourers (*ibid.*). These were established in the edge of the city and before the programme housing in the suburban areas were reserved for white people who could be afforded larger plots in the peri-urban areas (Zinyama *et al*, 1993). This was the beginning of urban sprawl though it started in small proportions and up to present day its continuing to leave an ecological footprint with negative results of pollution and congestion (Zorich, 2007).

3.2.2 Housing Policies after Independence

The Zimbabwean government went on a drive soon after independence to repeal many legislation and policies of the colonial era that was repressive and promulgated a number of plans and policies for development (Davison, 2002; Tibaijuka, 2005; Chaeruka and Munzwa, 2009; Chirisa, 2013). These included the Growth with Equity, The Prime Minister's Directive, Transitional Development Plans of 1982/3 and the First Five Year Development Plan between 1995 and 1990. The intention of development approach during the early years was to redress disparities that had to do with race and space that was created by many years of colonialism. The government embarked on a campaign called housing for all by year 2000 (Toriro, 2006). There was an assertion that the slogan "Housing for all by the year 2000" summed up all the housing goals (*ibid.*:1). There policy position did not translate to meeting housing targets but there has been consistency over the years in a bid to redress the policies of colonialism. According to Chirisa, (2013:102), "the new Zimbabwean government used a cocktail of instruments oscillating between technocratic induced minimalist ideology and socialist populism". From independence in 1980, the responsibility of providing housing lay with government at both local and central government level. The last decade has seen active involvement of private companies in shelter provision and the government focused more on rebuilding the economy.

3.3 Housing Models in Zimbabwe

Zimbabwe has applied several models of housing over the years and their implementation has been determining the quality of human settlements since most of these settlements are provided at the city edge zone (Mubvami, 1999; Toriro, 2006) The models include but are not limited to aided self-help, pay schemes, employer assisted schemes, consortia and syndicates, joint ventures, wet cores, rental accommodation and housing cooperatives. The aim of these models was to ensure continuity with the principles of freedom and democracy (Chikwanha, 2005).

3.3.1 Aided self-help model

Serviced plots or a core building was provided by local authorities at an affordable cost. The services included paved roads, water and sever reticulation. The beneficiaries would then construct dwellings or extend the core building using their own resources and at their own pace. Most of the households that benefited from this model fall in the low-income bracket. The government embarked on these schemes in order to prevent slum settlements in urban areas and as a way of dealing with homelessness as the houses and the plots were accessed at an affordable cost. Site and services is another programme that was funded by external partners such as United States Agency for International Development (Rakodi, 1990). The programmes managed to get support from the state because they were deemed to be in line with principles of socialism that promoted collective effort and self-reliance (Kamete, 2001). The programme was active from 1983 to 2000 and the state managed to produce more serviced plots than plots with core houses because of the higher cost of the later as illustrated on Table 2 below. Aided self-help programme suffered a major blow in 1992 because of drought as the government shifted resources to feeding the nation (Marongwe *et al.* 2011).

Table 2: Public Sector Housing Production 1983 – 2000

By year end	Completed Houses	Stands Delivered
1983	12 089	14 000
1984	9 385	15 000
1985	5 031	6 000
1986	6 124	14 845
1987	5 230	11 223
1988	4 862	16 500
1989	1 000	4 292
1990	600	6 951
1991	-	-
1992	-	-
1993	1 200	26 667
1994	950	27 000
1995	3 000	53 333
1996	1 600	7 400
1997	2 500	2 000
1998	3 000	6 200
1999	3 500	44 848
2000	2000	54 020

Source: Government of Zimbabwe (GoZ, 2005)

3.3.2. Pay schemes.

The local authority would identify unserviced land and prepare a layout plan which would then be tendered to contractors and/developers. These would pay for the required infrastructure on behalf of the beneficiaries who would then pay the developer in monthly instalments. The beneficiaries would then be responsible for construction of the superstructure at a pace of their own. It is a model that is best suited for middle

income households who can pay for their own housing. Financial contributions from the beneficiaries that were often inadequate together with misuse of funds by developers often led to failure of such projects though this was a noble substitute to providing housing to those who could afford when the government is failing (Mutekede and Sigauke, 2007).

3.3.3. Housing cooperatives schemes

This approach increasingly became the main pillar of hope for low-income households who required shelter in urban areas (Toriro, 2006). It was the main contributor of housing in urban areas though many of these schemes have remained without services. Cooperatives started in 1986 and were assisted by the Housing People of Zimbabwe and the Zimbabwe National Association of Housing Cooperatives. These became the mother associations for the cooperatives which came at a later stage around 1999 and got full recognition in 2001 (Marongwe *et al*., 2011). The Cooperatives Act of 1990 guided the registration and functioning of cooperatives and their registration was in excess of 565 members by 1995.

The way they operated is that they would find their own land, register it and provide necessary infrastructure. They will be responsible for the financing of the developments and supervising housing construction by their members. The expectation is that the members will raise finances and manage them together through collective efforts. Cooperatives received subsidies from the state every year and were exempted from paying taxes (Makwembere, 1998). The membership of housing cooperatives increased by the year 2000 as people saw this as a way of circumventing the long housing waiting list. Post year 2000, the government became sceptical about the way the funds were managed and restricted the financial assistance that was provided to housing cooperatives (Nyakuwa, 2010). Housing cooperatives still exist but their biggest challenge is land shortages and lack of financial support from the state.

3.3.4 Conversion of rental accommodation

The home ownership scheme allowed those households who occupied government and council houses to purchase them using a rent to buy scheme (Auret, 1995) Rental stock of housing was being converted to ownership of homes. This afforded black Africans a chance to own property in towns and cities and a total of more than 90% of the rental housing stock was converted (Gumbo,1994). This resultant negative effect was a decrease on the rental stock of housing as the units that were converted to home ownership was never replaced. This was a challenge especially to new migrants that will be coming into the city or starting new families and cannot afford to purchase houses. As a result, “households, are forced to rent single rooms from landlords who stay on the same property” popularly known as lodging (Chirisa, 2013:108).

3.3.5 Consortia, syndicates and joint ventures

Consortia and syndicates refer to a group of employers who come together and request land to develop from councils. The land will be unserviced and upon servicing houses will be built for their workers. The model was not popular because employers continued to be affected by economic challenges such that they focused on staying afloat. Local authorities could also form partnerships with private companies to provide shelter. The local authority will provide the land while the partner will fund the provision of basic infrastructure and sometimes a superstructure will be built (Chirisa, 2013).

3.3.6 Schemes assisted by employers.

Employers would negotiate for land with local authorities and then they assist their workers to build the houses. Five percent of post-independence low income houses in Harare were constructed using schemes that were employer assisted (Toriro, 2006; Kamete and Mubvami, 1999)

3.3.7. Upgrading of Informal Settlements and Pre-Independence Houses

The government allocated loans to urban councils earmarked for upgrading bachelor flats, three and four roomed houses that had security of tenure in places like Mbare (GoZ, 2012). The informal settlements that were upgraded under this programme were Chirambahuyo and St Marys' (Chaeruka and Munzwa, 2009). However, it is important to note that there was little upgrading that took place during this period even though the legal framework favoured such upgrades (Chirisa, 2013).

3.4 National Housing Policies in Zimbabwe

3.4.1 National Housing Policy (NHP) of 2000

Prior to the year 2000 the government had not produced any housing policy document. For twenty years after the attainment of independence, it had relied on release of revisions to statutory instruments (Chikwanha, 2005). The National Housing policy of 2000 drew its inspiration from the National Housing Convention that was held in 1997. It was adopted and enacted as a housing policy in the year 2000. The intention was to address the housing backlog that was estimated to be in excess of a million houses at the time. It is important to note that as much as this National Housing Policy of 2000 was ambitious in its pursuit to reduce the housing backlog, it did not produce or led to building of any housing units (Takuva, 2017). The reason may be because of the meltdown of the economy that followed during the years that followed its enactment.

3.4.2 National Housing Policy (NHP) of 2012

This policy was born out of the realisation that low-income Zimbabweans lacked decent and adequate housing. People were living in settlements that lacked basic services and where often unsustainable. Infrastructure was failing and settlements were overcrowded. High density plots were being shared by people as many as twenty-two in comparison with the recommended six. (GoZ, 2012). The focus of the policy was to promote development of low-income housing. Its main thrust was on participation and inclusivity. The private sector was also incorporated to play an active role in provision of shelter. The view was to find a solution to housing challenges that

is sustainable and reliable (*ibid*.). The intention of the policy was to reduce overcrowding and address shortage of basic infrastructure and support services. The role of the government will be that of an enabler so that the initiatives for low-cost housing are promoted and bottlenecks in the availability of land are removed (*ibid*.).

3.4.3 The Zimbabwe National Human Settlements Policy (ZNHSP) of 2019

The ZNHSP of 2019 is guided by Vision 2030 and resonates with the African Union's Agenda 2063 and other international policies that promote provision of decent accommodation. The policy introduced a wide range of changes which ensured that the planning, development and management of settlements are in line with disaster risk management frameworks (GoZ, 2019). All local authorities are expected to have spatial planning units resourced with registered spatial planners who will be responsible for development, planning, control and facilitation. The policy also aims to reduce the high cost of building materials and housing finance. In order to curb urban sprawl and address a huge housing backlog, 40% of land for human settlements will be reserved for the construction of high-rise accommodation. Government also resolved to reserve social housing for the destitute as well as social institutions whenever there is planning for human settlements. The immediate focus is to construct 200 000 new houses by 2023 while apartments that are unfit for human habitation will be rebuilt (Sunday Mail, 08/12/2020). The government expects to create a relationship with the private sector in the provision of housing and on the other hand civil servants are expected to benefit.

3.5 National Housing Programmes in Zimbabwe

3.5.1 The National Housing Development Programme (NHDP) of 2003

The NHDP of 2003 was born out of the NHP of 2000 in a bid to reduce the housing waiting list in towns and cities that was estimated at 1,25 million units by 2008 (Takuva, 2017). This programme was supposed to drive housing delivery into the future and the government would provide 310 406,4 hectares of land on the city edge which would

be used to meet the target of provision of shelter (Marongwe, 2011, GoZ, 2003). According to Marongwe *et al.,* 2011:62) the programme required, “reformation of the current housing delivery system through the formation of an integrated institutional framework for housing, introduction of alternative building technology and informal sector planning on housing”. An improvement in the coordination and efficiency in the delivery of housing was going to be achieved through the integrated framework. Different stakeholders were assigned the various roles to achieve smooth implementation of the programme as shown in Table 3 below. This programme was embarked on soon after the Fast-Track Land Reform Programme when the country was placed under targeted sanctions and caused instability and hyperinflation to the economy. Investor buy in and possible partnerships in the programme was affected even though roles were clearly laid out (GoZ, 2012).

Table 3: Stakeholder roles in implementing the programme.

SECTOR	INSTITUTIONS	RESPONSIBILITIES
Public	Central Government Local Authorities	Acquire land Land use planning Offsite infrastructure Land allocation Social housing Housing guarantees Civil service housing
Private	Building Societies	Providing mortgage finance
	Land developers Cooperatives Individual beneficiaries	Provide onsite infrastructure House construction
	Housing Development Bank of Zimbabwe	Provide mortgage finance to low-income people Provide loans to land developers and Cooperatives

Source: GoZ (2003)

The government was to play the role of the facilitator in housing delivery. Beneficiaries would be identified by the government who would be allocated land and construct their

own dwellings in line with their economic status (GoZ, 2003). The administration of the housing delivery process would then become the role of other key stakeholders. Each province was given a target to achieve 250 000 housing units within five years. This seemed to be an over ambitious target considering that the delivery rate between 1995 to 2000 was just under 20 000 units (GoZ, 2003). In order to improve the success rate of delivery, the government revised its strategy later and allowed an incremental form of housing programme that was called parallel development in 2006 (Munyoro, 2009).

3.5.2 Operation Murambatsvina (OM) of 2005

In the year 2005, the GoZ undertook a hasty decision to embark on OM which demolished all informal dwellings in the country (Tibaijuka, 2005). These included backyard dwellings, shacks, informal settlements, unregistered cooperative housing and stalls for informal traders. The urban areas had failed to cope with increasing pressure from rising urban population because of rural urban migration due to non-restrictive laws that were promulgated after independence. Increased informality in the urban areas was a result of high rate of urbanisation (Kamete, 2009). The programme was criticised as an unnecessary decision that did not consider that the poor have a right to the city. Other options could have been considered such as in situ upgrading and regularisation of dwellings (Marongwe et al., 2011). OM led to loss of habitat and livelihoods for approximately 70 000 households in Zimbabwe and in the end affected about 20% of the population (Tibaijuka, 2005). In the absence of a rental stock of housing households had resorted to renting on backyard dwellings that were built by house owners as a way of supplementing their incomes. In Mutare the number of households that lived in backyard dwellings surpassed those that lived in formal housing in the ratio of 37 000: 27 000 households (Toriro, 2006). OM led to an increase in homelessness due to unnecessary evictions which led to mass destruction of livelihoods and assets (Huchzermeyer, 2011).

The government defended the decision to destroy informality on the basis that it was the source of rampant crime and a breeding ground for HIV/AIDS because of the chaos that characterised informal settlements (GoZ, 2005). The government also argued that the figure of those affected by the programme were exaggerated in a bid to tarnish the country's image *(ibid*.). In a bid to rebuild its image and compensate the victims of OM

the government embarked on construction of low-income housing that was meant for the poor.

3.5.3 Operation Garikai of 2005

The government made available funds under the Ministry of Local Government in order to embark on building of basic houses for the households that were affected by OM in the urban areas across the country (Mutekede and Sigauke, 2007) This was in response to the criticism that the government faced in the aftermath of the destruction of people's homes and livelihoods without providing an alternative (Marongwe *et al*., 2011). The government revived the direct involvement in the provision of housing that had been disproved by the International Monetary Fund in 1998 (Takuva, 2017).

According to Mutekede and Sigauke, (2007), there were 1200 housing units that had been completed by the year 2007 and a further 1006 which was at different stages of the construction process across the country. Funding problems coupled with serious economic challenges facing the nation at the time contributed to an output that failed to reach the 5000 units per year target (*ibid*.). Criticism of the programme was mainly on the fact that it benefited those who were members of the ruling party Zanu (Pf). The government could also have delivered more units had they focused on delivering sites and services as compared to complete core housing units. This would have reached out to many victims of OM as beneficiaries would then be left to incrementally build their own houses (*ibid*.). The two programmes that followed each other OM and subsequent Operation Garikai were not in line with the objectives of NHDP of 2003. "OM in particular could be described as *ultra vires* and reversive of the noble intentions and achievements of NHDP that were still valid till 2008" (Takuva, 2017:45).

3.5.4 The HomeLink Housing Programme of 2009

This housing development initiative was made by the government in a bid to lure Zimbabweans living and working in the diaspora to invest in the real estate sector back home. (Marongwe *et al.* 2011). The Zimbabweans living abroad would enter into an agreement with the Reserve Bank of Zimbabwe and they would be supposed to pay

a monthly instalment of United States Dollar (USD) 500 for 10 years. The house would be handed over to the beneficiary after completing payment of instalments. Payment was supposed to be made using foreign currency. The programme excluded the citizens who are in Zimbabwe and have their own foreign currency who might want to join. This criterion for joining the programme was a major contributor to its failure. It faced resistance from the targeted people who accused the programme of trying to milk them of their hard-earned cash without giving access to the property (*ibid*.). The monthly instalment was too exorbitant even for people in the diaspora which means the programme targeted high income groups as opposed to the majority who are middle-income and low-income earners (Takuva, 2017).

3.5.5 The National Housing Delivery Programme (NHDP) of 2015

Land shortages among other influences resulted in the underachievement of the NHDP of 2003 and Operation Garikai and in response the government embarked on the NHDP of 2015. When compared to its predecessor programmes, the NHDP of 2015 emphasised improvement in servicing of land and facilitation of acquiring tenure security for those who benefited from housing stands (GoZ, 2015). Cooperatives had invaded most of the vacant land belonging to the City of Harare (CoH) in the preceding years to the NHDP of 2015. The parcelled-out land lacked basic services. Some of the residents who settled illegally were evicted by CoH while others were in constant threat of eviction. Cooperatives would need to apply for regularisation of their stands with CoH in cases where there are not registered in the council database. The programme also intended to provide housing to the people that is decent, adequate, low cost and sustainable (*ibid.*). The programme was to be implemented and introduced in line with the Zimbabwe Agenda for Sustainable Socio-Economic Transformation of 2013-2018. In order to satisfy the objectives of the programme the government revised the standards and made the programme sensitive to gender when it comes to improvement of livelihoods. Employment opportunities were balanced for all genders during the programme implementation phase (*ibid.*). The government was of the belief that failure of the previous programmes was as a result of developers who lacked discipline and took advantage of minimal monitoring of their operations by

government. So, in the NHDP of 2015 the government committed to increase monitoring of developers to instil discipline (*ibid.*).

3.6 Legislative Framework that Shape Regional, Town and Country Planning in Zimbabwe

3.6.1 Regional, Town and Country Planning (RTCP) Act of 1996

The Act enables the conservation and improvement of the physical surroundings through clear guidelines on the course of action and procedures to be followed (RTCP, 1996). The original Act was promulgated into law in 1976 during the colonial era and several revisions have followed with the latest being the RTCP Act of 1996. It provides guidelines for specific developments being supported by the Department of Physical Planning which makes sure spatial development is orderly and well-coordinated (Kamete, 2009). The RTCP Act addresses the long-term challenges of shelter shortages, rising poverty and control of development by regulating and facilitating developments (Chirisa and Dumba, 2011). There is a close link between the RTCP Act, local and master plans when it comes to implementation. The Act has been criticised for being theoretical and lacking adaptation to complex realities gained from experience (Denath, 2002). It has maintained strict adherence to provision of services and infrastructure standards in areas that reside the poor that were established in the early years paying little attention to the current challenges of informal urban developments (Chirisa and Dumba, 2011). “It ideally should be supporting practical changes in lowest possible housing standards and low-cost technologies to cater for low-income urbanites” (Takuva, 2017:47).

3.6.2 The Housing and Building Standards Act of 1996

The Housing and Building Standards Act of 1996 was enacted to assist in controlling and managing finances that are earmarked for development of housing (Siwawa, 2018). “Specifically, it was provided for the creation of the National Housing Guarantee fund to support the government and building societies funding for low-income housing schemes (*ibid*.:40).” According to Chikomwe, (2014), it provides for housing and

building construction that includes provision of basic infrastructure which is related to construction activities.

3.6.3 Revision of Minimum Standards for Housing

The Ministry of Local Government pronounce Circulars and statutes whenever necessary to control development (Chikomwe, 2014). Their main function is to relax strict development control so that housing for the impoverished becomes affordable. (GoZ, 2009). Revisions that were made in 1992 allowed the use of affordable materials such as farm bricks and in 1994 under Circular 17 some standards in the development of infrastructure were relaxed. The revisions managed to make it easy for poor urban dwellers to earn a decent livelihood and be able to build shelter for themselves without strict conditions (Marongwe *et al*., 2011). Non-residential activities were allowed in residential areas under Section 6 of Statutory Instrument 216 of 1994 in order to support the livelihoods of low-income groups. It is important to note that these revisions remained in opposition with local and master plan provisions which caused a lot of discord and sometimes led to clashes between local authorities and the poor over the procedures that need to be followed to deliver housing (Muchadenyika, 2015).

3.7 Conclusion

The background and history of the journey that Zimbabwe undertook from the pre independence era to present day in terms of provision of housing has been summarised in this chapter. This section has also given a review of the major housing policies, programmes and projects that were implemented over the years. Contributions of major players have also been highlighted in this chapter notably the public and the private sector, community-based organisations and other agencies that are external to the housing problem. It is important to note that the journey that Zimbabwe went through in terms of housing was not an easy one. It is a journey that has been greatly influenced by the socio-political and economic environment notably Economic Structural Adjustment Programme, fast track land reform programme, economic sanctions from the West. Other problems were self-inflicted such as OM. These have affected the financial contribution of the state towards housing for the poor

which left the private sector to fill the gap but the prices they sell their housing products are not affordable. Policies have not been consistent and were in most cases reactive to what was happening in the political arena. In addition, all these policies and programmes promoted urban sprawl which led to exhaustion of development land within the boundaries of Harare. This pushed government in the current ZNHSP of 2019 to promote vertical development in the form of multi-storey housing which makes the discussion on medium density walk-up residential flats relevant to the current housing debate. In the following chapter, I am going to give a detailed background of the Willowvale flats study area.

Chapter 4 Background to the Willowvale Flats Case Study

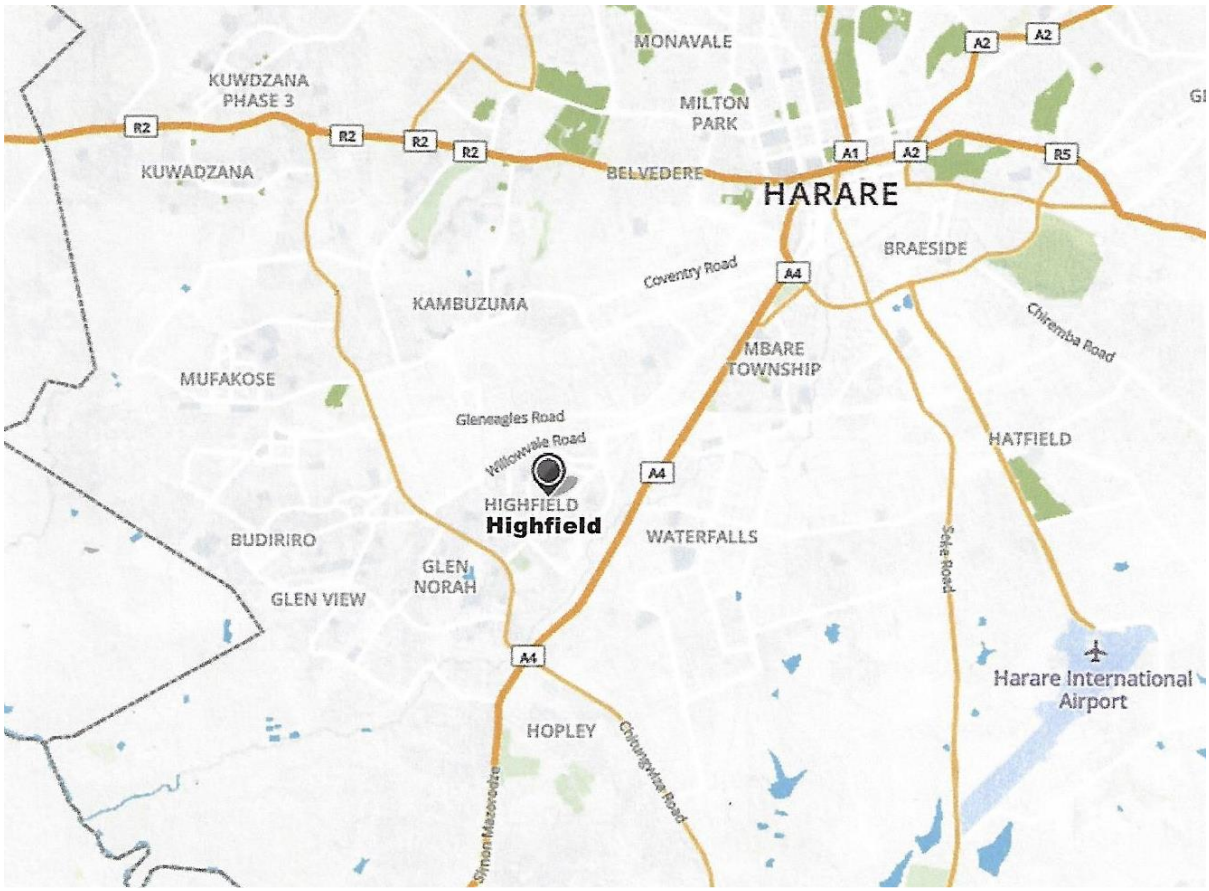
4.1 Overview

The background and framework that shapes the Willowvale flats case study is described in detail in this chapter. The location of Willowvale flats is described in the context of Highfield high density suburb in which the flats were built. Maps below show the location of Harare in Zimbabwe (Figure 4), Willowvale flats in Harare (Figure 5) and aerial photograph showing Willowvale flats (Figure 6) are provided to give a clear picture of where the study area is situated. In addition, the demography, rate of employment, socio economic status of Highfield is examined in order to get a deep insight on livelihoods, facilities and services and habitability issues in the study area.

Figure 3: Map showing location of City of Harare

Source: Environmental Management Agency (2016)

Figure 4: Map showing location of Highfield within Harare.



Source: www.mapquest.com (2020)

Figure 5: Aerial photograph showing location of Willowvale Flats in Highfield

Source: www.mapquest.com (2020)

4.2 Highfield Township

The township of Highfield was built during the colonial era in the 1930s to accommodate labourers of African origin together with their families. It is the second oldest township of Harare, the first black township being Mbare. It was originally intended to house workers who work in the nearby industrial areas of Southerton and Willowvale. The suburb has remained poor despite the introduction of other residential suburbs after independence in 1980. The area continues to welcome new entrance into the city who come from rural areas because of affordable rentals and proximity to the industrial areas. There are so many opportunities in the area which makes it easy for migrants to start-up businesses in the informal sector at Machipisa and Gazaland

home industries. The township has remained highly populated and has a high unemployment rate which make its citizens suffer from social deprivation. There is also a high rate of small crimes such as assaults and burglaries (Chikede, 2015).

Highfield is situated in the South West of the City of Harare and it is surrounded by Waterfalls in the South East, Willowvale and Southerton industrial areas in the North East and West and Glen Norah to the South West. Highfield was established in 1956 and consists of basic low-cost houses that were built by the government for the black workforce. The houses were sold at very cheap prices which were reflective of the economic status of the residents (*ibid*.). The most recent section of Highfield is Willowvale flats which were completed in 2012.

Highfield house some of the best facilities in the district and these include eleven government owned primary schools and six high schools. In addition, there are other schools and colleges that are owned privately and offer post high school training in skills such as computers, designing and secretarial studies. Highfield continue to produce high quality students that enter the country's top universities. The catchment area of the schools in the area goes beyond its boundaries because of the attraction of the good results when it comes to national examinations (*ibid*.).

Other amenities in the area is the major shopping centre at Machipisa. The area is well connected in terms of transport to all the high-density townships in the city of Harare. It gained prominence during the colonial era since movement of blacks was restricted in other areas and Machipisa provided everything from banks, night clubs, a three-star Mushandirapamwe hotel and major grocery supermarkets, sports stadium, library among other facilities (*ibid*.).

4.3 Background of Willowvale Flats

Willowvale flats are situated on the North Western side of Highfield high density residential suburb in Harare. The land is located on the boundary of Highfield along a major highway called Willowvale road where the flats got their name. The highway separates the residential area of Highfield to the left and the Willowvale industrial area to the right as one comes from the direction of the Central Business District (CBD) of Harare. The land on which the flats are located once formed a buffer zone on the left-

hand side of the major highway. Willowvale road is major route connecting the CBD of Harare and the South Western suburbs. About 3km from the flats Willowvale road meets Highglen road which connect Western suburbs and Eastern suburbs until it reaches the satellite town of Chitungwiza. This makes the area convenient in terms of public transport.

Willowvale flats were constructed as project under the Ministry of Local government and National Housing in conjunction with the Infrastructure Development Bank of Zimbabwe and using loan finance from the International Monetary fund. The bank was formed in 2005 by the GoZ, in order to drive infrastructure development using funds sourced from both local and international institutions. “The bank’s mandate is to mobilise financial and technical resources of appropriate duration and cost for public and private institutions involved in infrastructure development, including the facilitation of investment in affordable and decent housing (Marongwe *et al.,*2011:31)” The total cost of the project was US$11 583 995,37 (approximately R199 244 720,30) (IDBZ, 2015). There is a total of 32 blocks of medium density residential flats which comprise of 288 housing units. The population of Willowvale flats is currently estimated at 5120. The project was earmarked to benefit civil servants who are considered part of the low-income groups in Zimbabwe (Herald, 29/12/2019). However, the project deviated from being pro poor to benefit the rich as initial deposits of USD3600 and USD10 000 were demanded upfront for civil servants and other citizens, respectively (*ibid*.). The apartments consist of two bedrooms, a lounge, a toilet with shower and a kitchen and occupy a floor space of 24m2. Ownership of the apartments at Willowvale flats was transferred to the individual owners on completion of the payment terms. Current residents include both owners and tenants. Some owners are renting out the whole apartment or share with a tenant who use one bedroom and share the toilet and shower. In some cases, two tenants share the apartment as well as the rental costs. The rentals of the whole apartment as of December 2020 averages USD250 (R4000) and a single room costs USD50 (R850). Those sharing normally split the costs accordingly depending on the floor space that one occupies. The management of the flats is run by a committee selected from the residents of the flats. The blocks of flats are divided into groups of four blocks which are fenced and gated and they run their own affairs (such as security) independently. The activities of the committees are financed by the residents themselves.

The project consisted of only residential units and no amenities or other facilities were constructed as part of the project as the residents could easily benefit from already established Highfield area in which they are located.

4.4 Aims of the Project.

Alleviating the challenge of homelessness in the CoH was the Willowvale flats projects' major objective especially amongst government employees who have remained underpaid for a long time and are considered among low-income groups. It was one of the projects that was undertaken by the government across the country to construct blocks of flats for civil servants. In addition to the people who were on the housing waiting list OM left thousands more without decent accommodation. Operation Garikayi in 2005 only managed to house less than 5000 households by 2007 (Mutekede and Sigauke, 2007). The government had not been able to provide its citizens with affordable housing because of years of economic meltdown. The housing backlog kept on rising. Medium density residential flats were regarded as a solution to the shortage of housing because of its advantages. It could house a high number of people without consuming much land which is in short supply. The flats also solve the challenges that come with urban sprawl such as high energy consumption.

As mentioned earlier the Willowvale flats projects did not require much infrastructure as it benefited from the existing bulk water, sewer and road network. The only challenge is that the infrastructure is aging after years of neglect. Roads in Highfield have potholes and sewer line always bursts. The CoH generally has a challenge of water shortages. The beneficiaries were people who earn a meagre income and often rely on other sources of income for survival for example teachers often conduct extra classes at home to supplement their incomes.

4.5 Conclusion

Willowvale flats is a form of medium density housing that falls within the low-income township of Highfield. The challenges that the residents face cannot be separated with those of the people that live in the same area as themselves. The difference is that

they find themselves in a different environment and with a house that does not have a yard. This makes their residential environment unique and present a different set of challenges to those that live in conventional housing.

Chapter 5 Data Presentation and Analysis

5.0 Introduction

As discussed in the previous chapter, the research instrument requested the respondents on how they rank their satisfaction or dissatisfaction with the challenges of medium density walk-up residential flats (MDWRFs) environment classified in three distinct areas of livelihood and assets, habitability and management of common spaces and facilities. The discussions that follows outline the characteristics of the residents that forms the sample, at the same time setting the context and presentation and analysis of data. In the process the chapter answers the second and third research questions which are:

What are the residents' evaluation of the challenges faced when living in MDWRFs in Harare?
What are the strengths and weaknesses of the current form of MDWRFs according to residents' evaluation in Harare?

The intention of this analysis is to provide a basis for coming up with conclusions and formulate recommendations that can be used to improve the overall degree of satisfaction with the MDWRFs environment.

5.1.0 Demographic features

5.1.1 Gender

Table 4 below shows that 30 respondents were surveyed, and the percentage of males (57%) was slightly higher than females (43%)

Table 4: Distribution of respondents' gender

Gender	Frequency	Percent
Male	17	57%
Female	13	43%
Total	**30**	**100%**

5.1.2 Age

The respondents were composed of 53% in the middle age group, which is from 40 to 59 years, 47% are young people between the age of 18 and 39 years. There were no respondents in the 60 and above age group.

Table 5: Distribution of respondents' age

Age	Frequency	Percent
18-39 years	14	47%
40-59 years	16	53%
60 years and above	0	0%
Total	**30**	**100%**

5.1.3 Level of education

All the respondents surveyed have achieved a post school qualification. This was not a requirement to participate in the survey but coincidental. 53% holds a degree, 27% have a postgraduate qualification and 20% have reached a diploma level of education.

Table 6: Distribution of respondents' education level

Level of education	Frequency	Percent
Ordinary Level	0	0%
Advanced level	0	0%
Diploma	6	20%
Degree	16	53%
Postgraduate	8	27%
Total	**30**	**100%**

5.1.4 Level of family income

Most of the respondents (63%) have a family income of United States Dollar US$501(R8517) - US$1000(R17000) followed by 37% who earn between US$201(R3417) to US$500(R8500).

Table 7: Distribution of respondents' family income

Level of family income	**Frequency**	**Percent**
Less than or equal to US$200 (R3400)	0	0%
US$201-US$500 (R3417- R8500)	11	37%
US$501-US$1000 (R8517-R17000)	19	63%
US$1001-US$2000 (R17017 - R34000)	0	0%
Total	**30**	**100%**

5.1.5 Size of household

Families with a size of four members were the most dominant (37%). This was followed by household size with three members (30%). There was 17% of households with five of more members. Two member and one member households were least prevalent at 10% and 7% respectively as shown on Table 8 below.

Table 8: Distribution of respondents' family income

Size of household	**Frequency**	**Percent**
One	2	7%
Two	3	10%
Three	9	30%
Four	11	37%
Five or more	5	17%
Total	**30**	**100%**

5.2.0 Respondents' residential environmental features

5.2.1 Floor level in building

The respondents surveyed were almost evenly distributed among the four floor levels with the majority (33%) on the ground floor level, 30% were on the first-floor level, 13% on the second floor and lastly 23% were on the third floor.

Table 9: Floor level in building

Floor level in building	**Frequency**	**Percent**
Ground	10	33%
First	9	30%
Second	4	13%
Third	7	23%
Total	**30**	**100%**

5.2.2 Length of stay in flat.

The period of residency ranged from less than 2 years to more than 8 years as shown in Table 10 below. 13% have been living in the flats for less than 2 years, 23% for 2 to 4 years, 30% for 4 to 6 years, 17% for 6 to 8 years and another 17% for more than 8 years. It is important to note that a significant number of owner occupiers have resided in the flats for longer periods of time when compared to those in tenancy type of tenure.

Table 10: Distribution of respondents' length of stay in flat.

Length of stay in flat	**Frequency**	**Percent**
Less or equal to 2 years	4	13%
>2-4 years	7	23%
>4-6 years	9	30%
>6 to 8 years	5	17%
More than 8 years	5	17%
Total	**30**	**100%**

5.2.3 Type of tenure

60% of the respondents surveyed were tenants paying rent to the flat owners and 40% of respondents surveyed were owner occupiers.

Table 11: Distribution of respondents' different tenure types

Tenure of flat	Frequency	Percent
Tenancy	18	60%
Owner occupied	12	40%
Total	**30**	**100%**

5.2.4 Previous housing type

The majority of the respondents surveyed indicated that their former housing type is townhouse (83%) which shows they had experience with living in medium density walk-up residential flats, followed by 10% who lived in single storey house with garden and those who previously lived in multi-storey and informal settlement are 3% each.

Table 12: Distribution of respondents' previous type of housing

Previous type of housing before flat	Frequency	Percent
Informal settlement	1	3%
Multi storey	1	3%
Town house	25	83%
Single storey house with garden	3	10%
Total	**30**	**100%**

5.2.5 Ideal housing type

Most of the residents (73%) preferred to live in a single storey house with garden while 13% preferred to live in high-rise apartments and another 13% were comfortable residing in walk-up flats.

Table 13: Distribution of respondents' ideal type of housing

Ideal form of housing	Frequency	Percent
Single storey house with garden	22	73%
Low storey townhouse	0	0%
Walk-up flats	4	13%
High-rise apartment	4	13%
Total	**30**	**100%**

5.2.6 Satisfaction and evaluation of the overall residential environment (ORE)

There was generally a positive evaluation and satisfaction with the residential environment with the mean values of 4,67 and 4,30 respectively on a scale of five points. The overall residential environment was evaluated positively with a 67% very acceptable rating and a 33% fairly acceptable rating. Similarly, the rate of satisfaction with the overall residential environment was positive with a 70 % satisfied and a 30% of the respondents extra satisfied. None of the respondents had negative responses when queried on the overall satisfaction and evaluation of the residential environment.

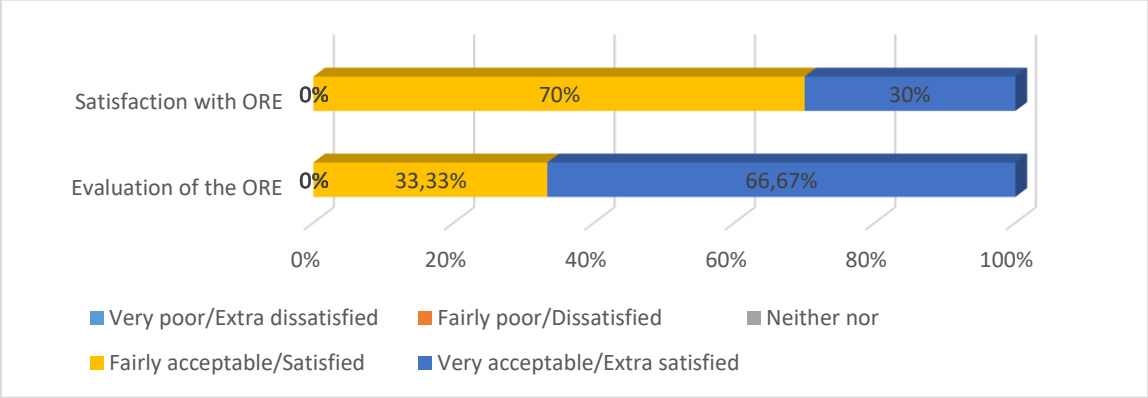


Figure 6: Rate of satisfaction and evaluation of the overall residential environment (ORE) of MDWRFs.

5.3 Satisfaction with the three evaluation aspects of the overall medium density walk-up flats (MDWRFs) residential environment.

In terms of the three aspects of the residential environment, the residents were more satisfied with habitability (4,04) followed by management of common spaces and facilities (3,69) and lastly livelihood and assets at 3,63.

Table 14: Satisfaction with the three aspects of the overall MDWRFs environment.

Satisfaction rate with		Mean	N	Std. Deviation
Overall residential environment aspects		**4,3**	**30**	**0,466**
	Livelihood and assets	3,63	30	0,722
	Habitability	4,04	30	0,694
	Management of common spaces and facilities	3,69	30	0,574

With regards to the rate of satisfaction, the percentage of very dissatisfied in most of the factors was very low as it was below 10% which made sense to combine them with "fairly dissatisfied" and be classified as "negative evaluation". This makes it easy to explain the rate of dissatisfaction. The other three categories of satisfaction had higher percentages and it made sense not to combine them as they are indicative of a trend in terms of residents' satisfaction. In some cases, the description combined positive evaluation/satisfaction is used to refer to fairly satisfied and very satisfied combined percentages.

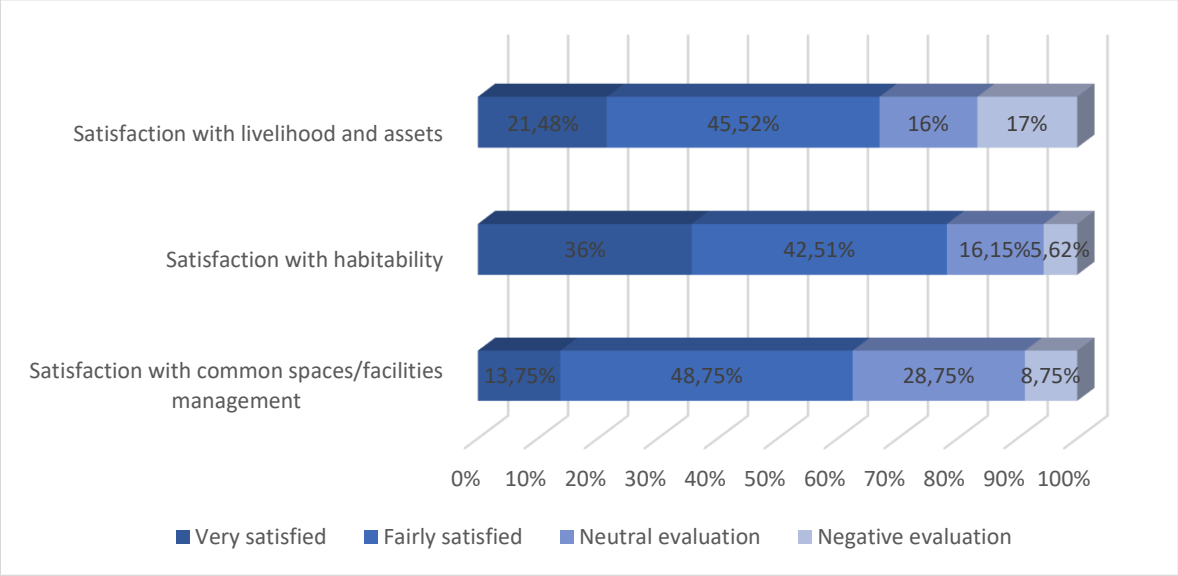


Figure 7: Satisfaction rates with the three aspects of the Overall Residential Environment (ORE): Livelihood and Assets (LA), Habitability (HB), Management of Common Spaces and Facilities (MCF).

Figure 7 above shows the rate of positive satisfaction with habitability (78,51%) as highest, followed by livelihoods and assets (67%) and management of common

spaces and facilities (62,5%). The trend shows that many residents have found a home which is habitable, but their other day to day survival needs are not equally catered for especially putting food on the table and how the home area is managed especially common spaces.

5.4 Satisfaction with the 30 challenges in the MDWRFs environment

The 30 challenges were classified according to the three aspects of the MDWRFs environment: livelihood and assets, habitability and management of common spaces and facilities.

5.4.1 Livelihood and Assets

Under this aspect, 9 challenges were evaluated (Figure 9). It is important to note that most of the challenges scored satisfaction levels above the median of 3 with the exception of alternatives to municipal water (2,53) and income generating activities (2,4).

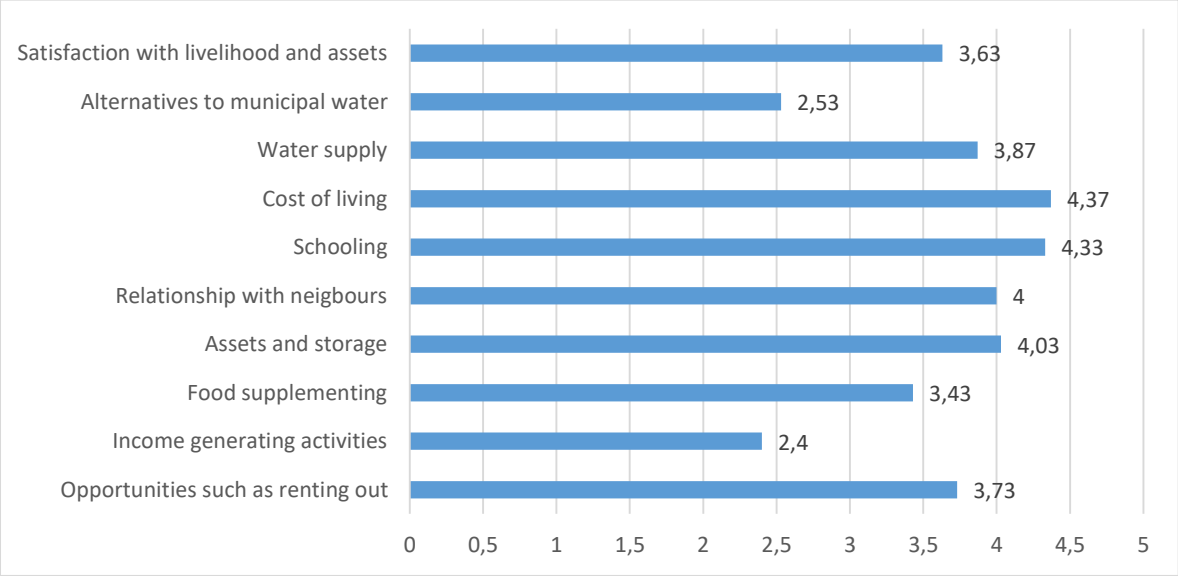


Figure 8: Satisfaction levels with livelihood and assets and the 9 associated challenges.

Under this aspect, the rates of satisfaction of income generating activities (0%) and alternatives to municipal water (3,33%) were below 50%. Their rate of dissatisfaction was 60% and 47% respectively which was higher than other elements. In terms of

satisfaction rates most notable was relationship with neighbours (100%), cost of living (100%), schooling facilities (97%), assets and storage (90%), water supply (83,33%) and opportunities such as renting out at (76,67%). Satisfaction with room renting opportunities is consistent with researches by Mayson, (2014) and Mabasa, (2017). They both found out that this gives the host, and the guest families access to the city at a rate that is lower (*ibid*.).

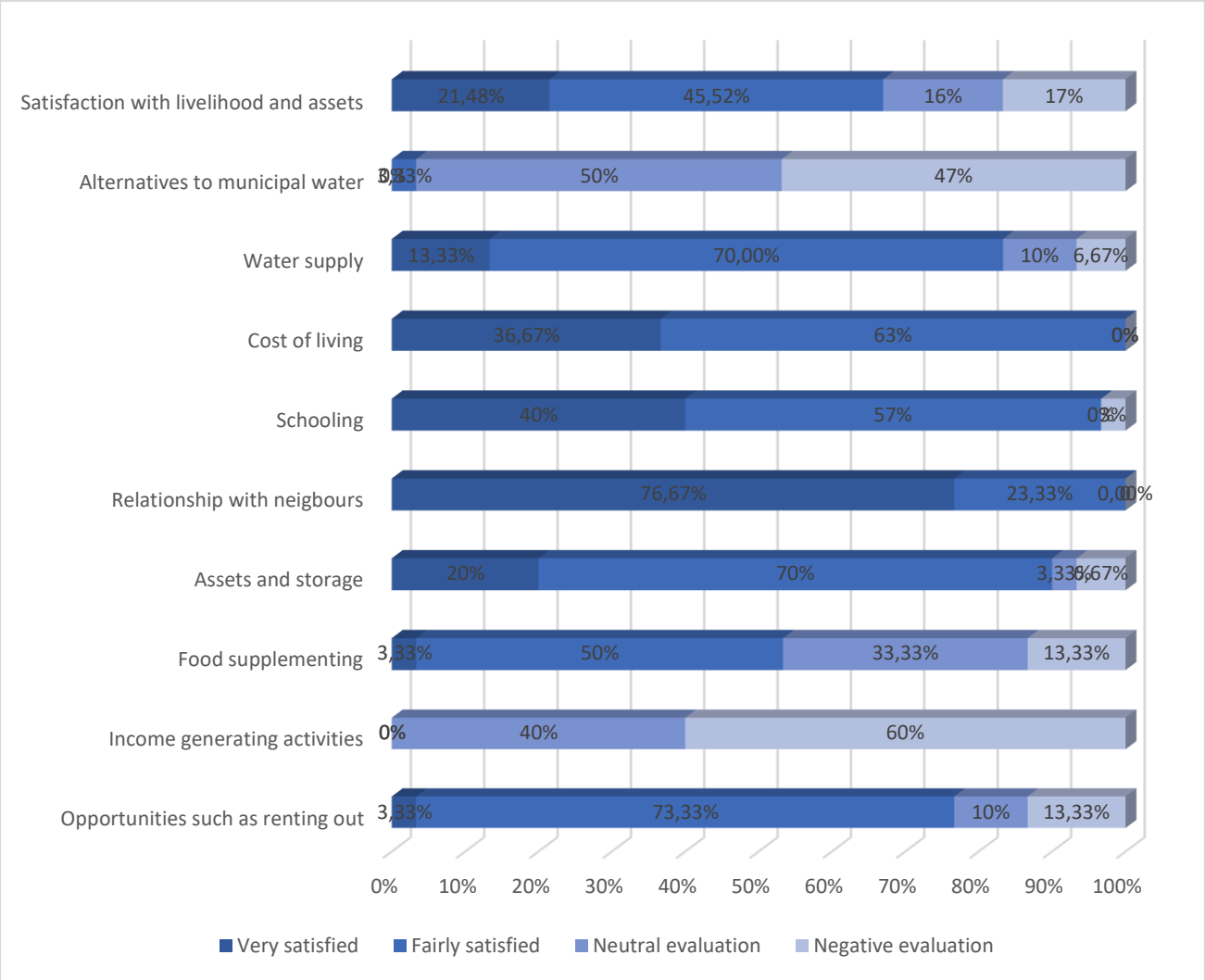


Figure 9: Rate of satisfaction with livelihood and assets and the 9 associated challenges.

5.4.2 Habitability

The habitability section had 13 challenges which were evaluated. The satisfaction level of the respondents with private outdoor space was the lowest (2,97). The rest of the

challenges scored above the median 3. However, it is important to note that they are some elements that were between 3 and 3.5 and these were local service facilities (3.13), green areas and landscape (3.3), local public facilities (3.43), activity places (3.43). Access to public transport (4.93) scored the highest satisfaction.

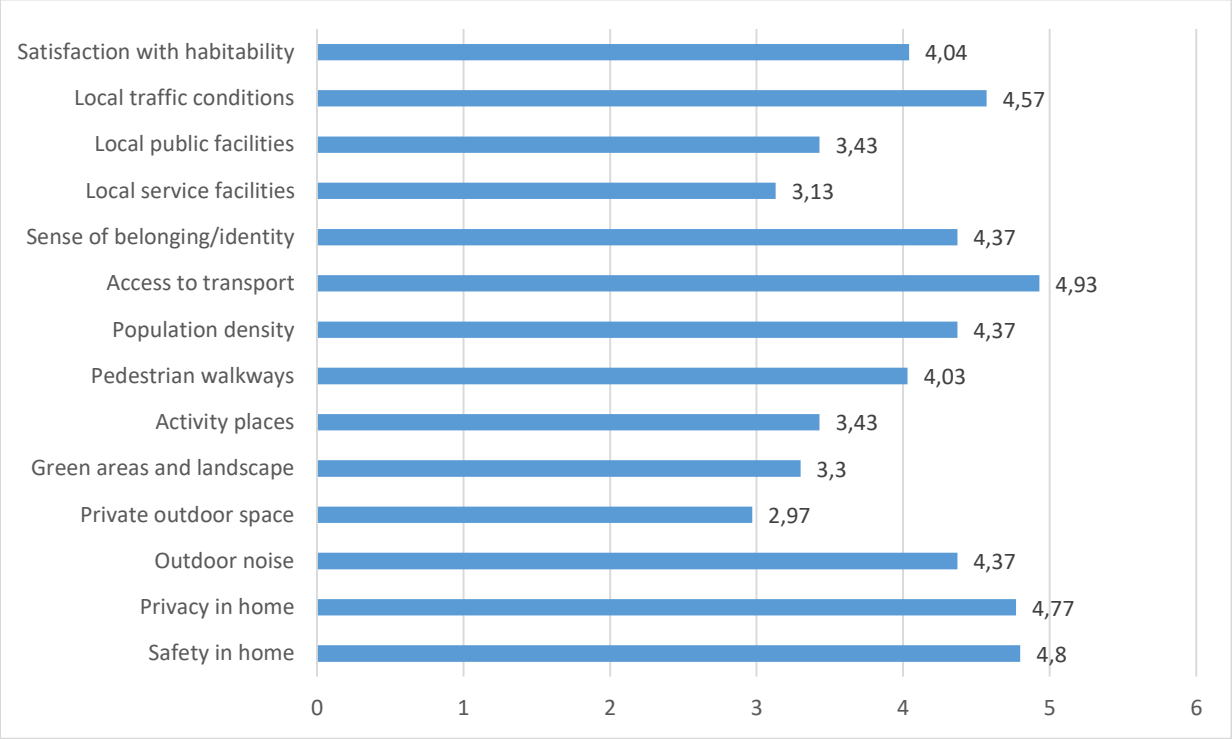


Figure 10: Satisfaction levels with habitability and the 13 associated challenges.

According to Figure 11 the combined rate of satisfaction with private outdoor spaces (30%) is the lowest, followed by green areas and landscape (46.67%), local public facilities (46,67%) and activity places (56,67%). The rest of the elements scored above 70% with most notable challenges being, safety in home (100%), population density (100%), and access to public transport (100%). Challenges with the largest negative evaluation are private outdoor spaces (33.33%), green areas and landscape (13,33%), and activity places (13,33%). The high rate of satisfaction on safety in home (100%) is consistent with the low rate of burglaries in these gated communities and access to public transport (100%) is consistent with the location of Willowvale flats along Willowvale road which is a major route that links the Highfield suburb with the CBD and other low-income suburbs. Private outdoor spaces, green areas and landscape and local public facilities are inadequate according to respondents.

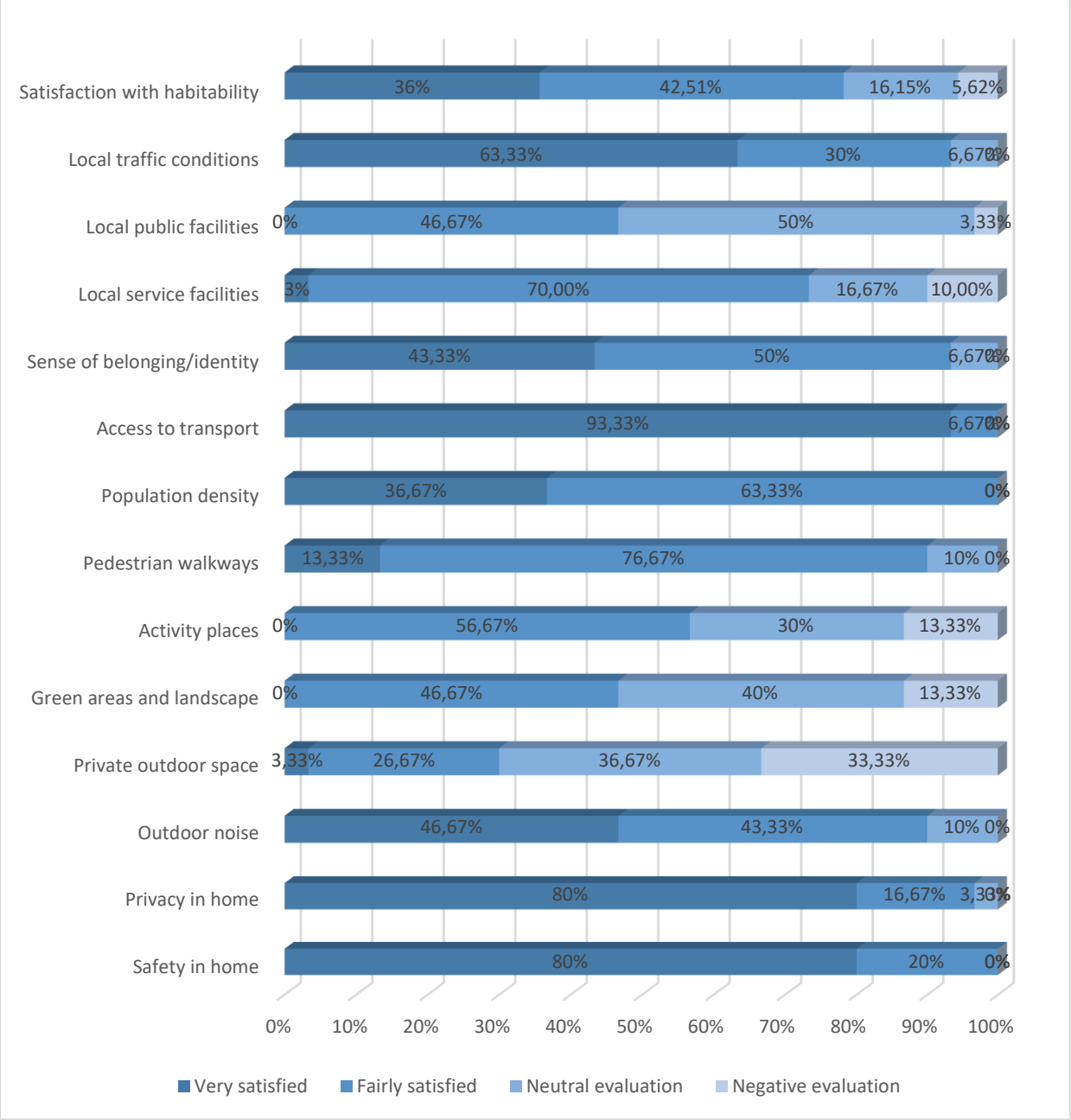


Figure 11: Rate of satisfaction with habitability and the 13 associated challenges.

5.4.3 Management of common spaces and facilities

Under the aspect of management of common spaces and facilities the level of satisfaction that is lowest is building communal spaces (2,93). Other low ratings that were relatively low (below 3,5 but higher than the median) are maintenance of common spaces (3,07), fire safety (3,34), and neighbourhood public security (3,4). It is important to note that people are less secure in the neighbourhood (3,4) as compared to their homes (4,8) where they feel safer as discussed previously.

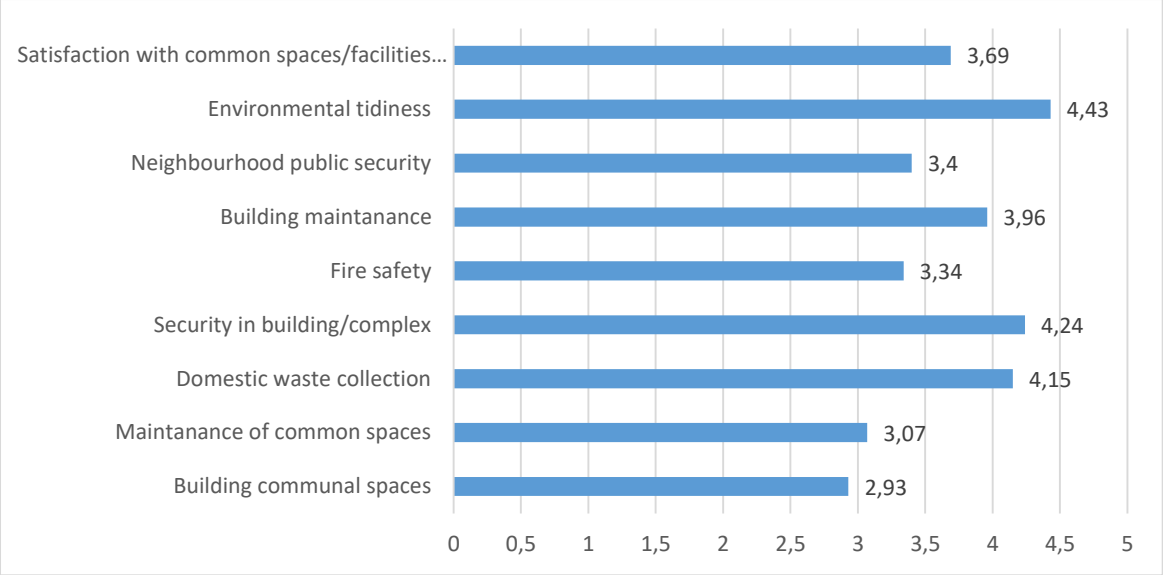


Figure 12: Satisfaction levels with management of common spaces and facilities and the 8 associated challenges.

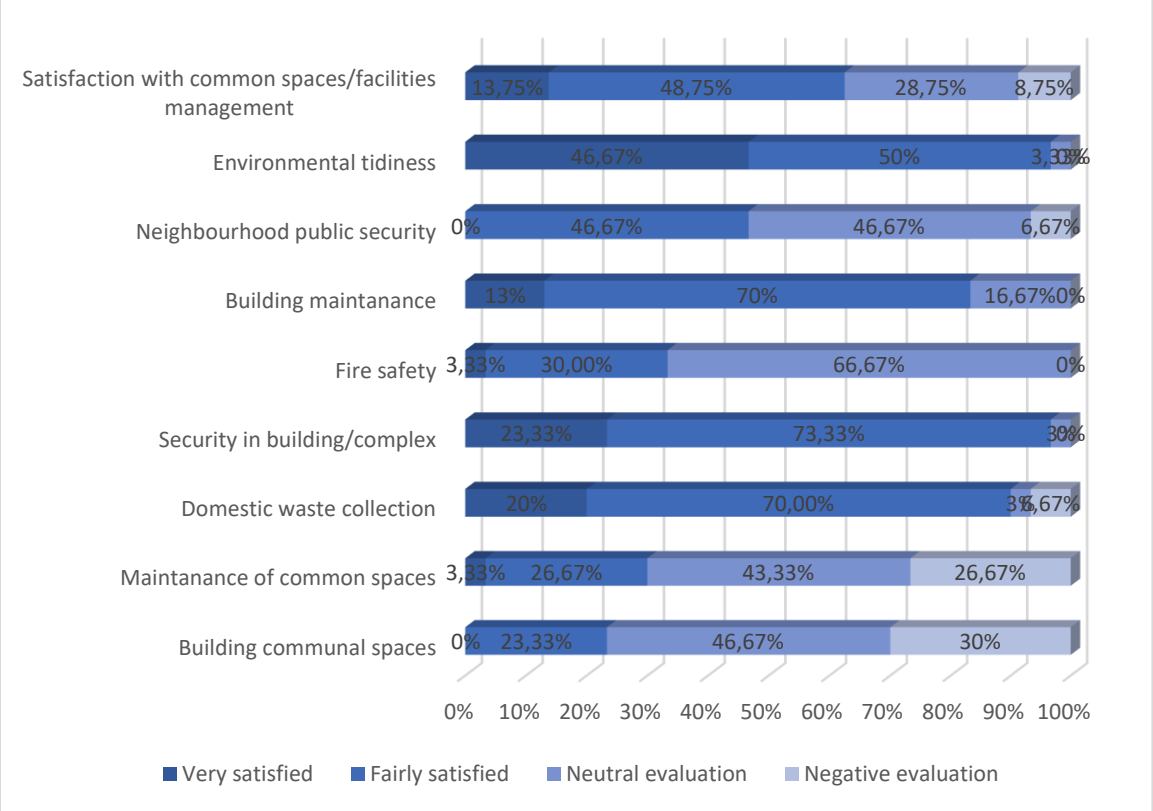
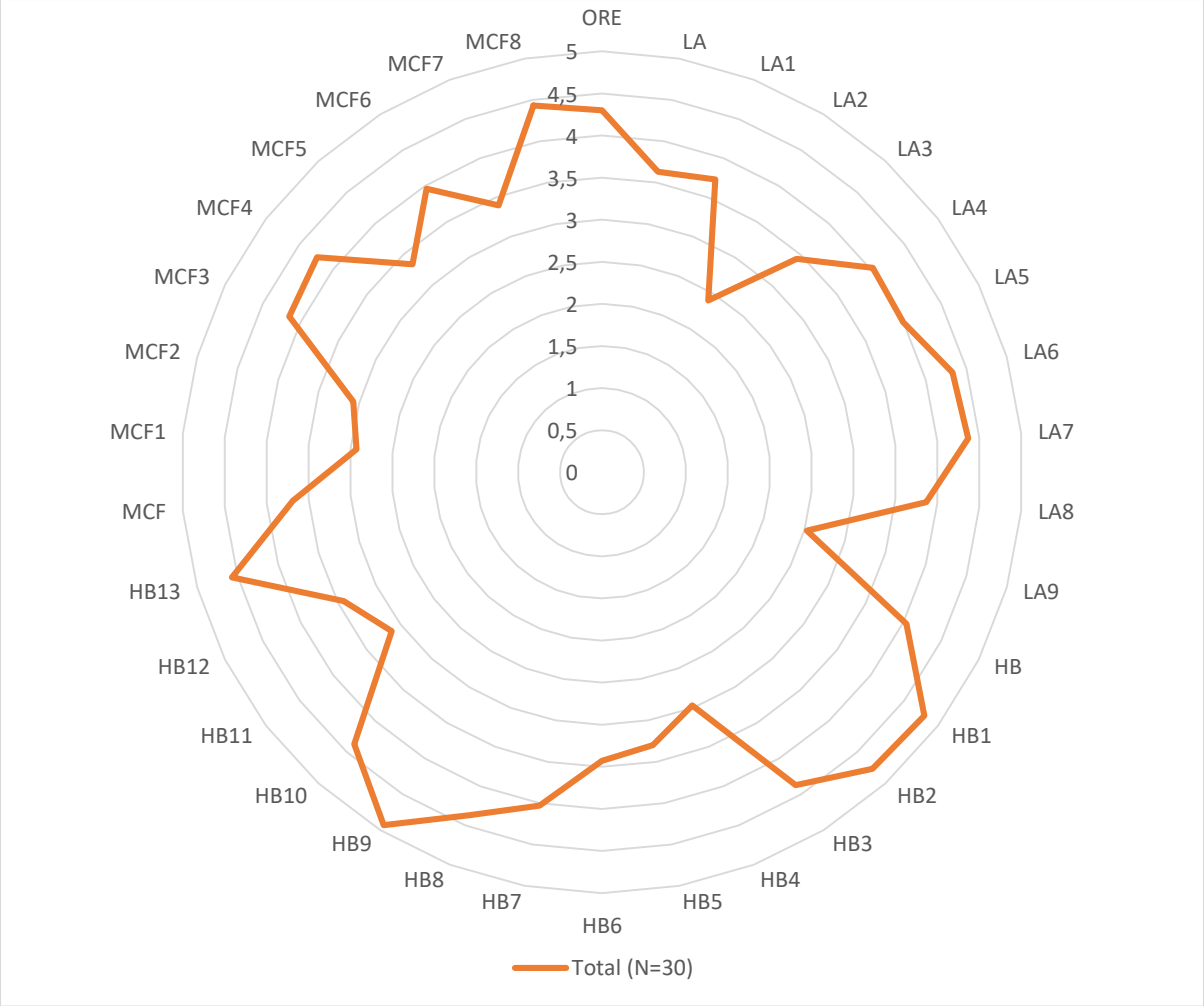


Figure 13: Rate of satisfaction with management of common spaces and facilities and the 8 associated challenges.

Of the 8 challenges evaluated under this aspect, the lowest satisfaction rates were scored in building communal spaces (23,33%), maintenance of communal spaces (30%), and fire safety (33,33%). The highest satisfaction rate is security in building and environmental tidiness (both at 96,67%). Highest negative satisfaction is building communal spaces (30%) followed by maintenance of communal spaces (26,67%).

5.5 Summary

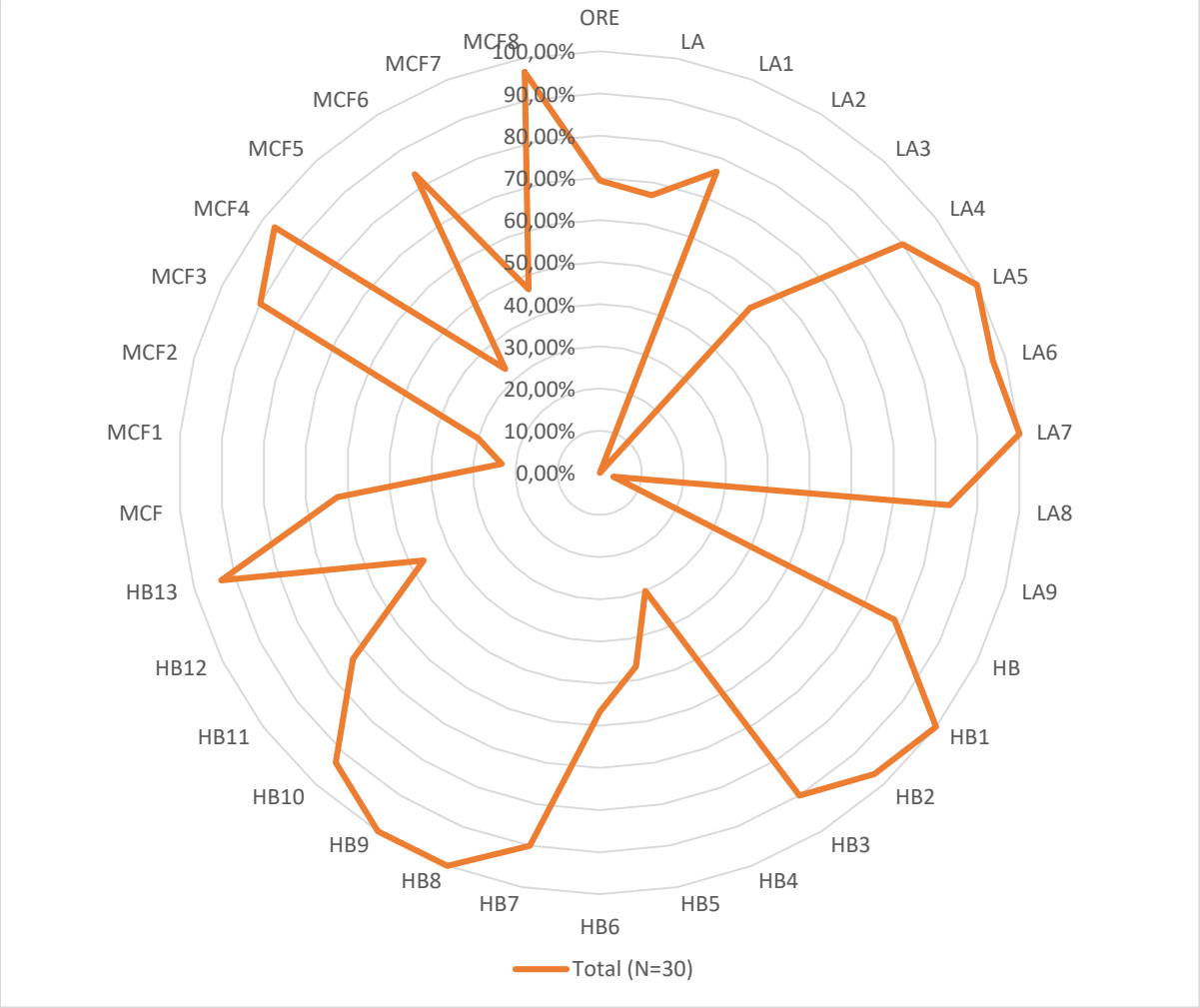
Figure 15 below summarises the total satisfaction levels for the survey according to the respondents' evaluation. The satisfaction levels are located between 2.4 (income generating activities) and 4.93 (access to transport) when ranked using a five-point Likert scale. A comprehensive evaluation of MDWRFs indicate that the results lie in the range of negative 2.0 and positive 5.0 evaluation.



LA Livelihoods and Assets	HB Habitability	MCF Management of common spaces/facilities
LA1 Opportunities	HB1 Safety in home	MCF1 Communal spaces in building
LA2 Income generating activities	HB2 Privacy in home	MCF 2 Maintenance of communal facilities
LA3 Food supplementing activities	HB3 Outdoor noise	MCF3 Domestic waste collection
LA4 Assets and storage	HB4 Private outdoor noise	MCF4 Security in building/complex
LA5 Relationship with neighbours	HB5 Green areas and landscape	MCF5 Fire safety
LA6 Schooling facilities	HB6 Activity places	MCF6 Building maintenance
LA7 Cost of living	HB7 Pedestrian walkways	MCF7 Public security in neighbourhood
LA8 Water supply	HB8 Population density	MCF8 Environmental tidiness
LA9 Alternatives to municipal water	HB9 Access to transport	
	HB10 Sense of belonging/identity	ORE Overall residential environment
	HB11 Local service facilities	
	HB2 Local public facilities	
	HB13 Local traffic conditions	

Figure 14: Holistic distributions of satisfaction levels of the Overall residential environment (ORE), Three evaluation aspects of MDWRFs and the 30 challenges

In addition, figure 16 below shows the rates of satisfaction as a whole which range from 0% (alternatives to municipal water) to 100% (safety in home, population density, relationship with neighbours, access to transport and cost of living).



LA Livelihoods and Assets	HB Habitability	MCF Management of common spaces/facilities
LA1 Opportunities	HB1 Safety in home	MCF1 Communal spaces in building
LA2 Income generating activities	HB2 Privacy in home	MCF 2 Maintenance of communal facilities
LA3 Food supplementing activities	HB3 Outdoor noise	MCF3 Domestic waste collection
LA4 Assets and storage	HB4 Private outdoor noise	MCF4 Security in building/complex
LA5 Relationship with neighbours	HB5 Green areas and landscape	MCF5 Fire safety
LA6 Schooling facilities	HB6 Activity places	MCF6 Building maintenance
LA7 Cost of living	HB7 Pedestrian walkways	MCF7 Public security in neighbourhood
LA8 Water supply	HB8 Population density	MCF8 Environmental tidiness
LA9 Alternatives to municipal water	HB9 Access to transport	
	HB10 Sense of belonging/identity	ORE Overall environment evaluation
	HB11 Local service facilities	
	HB2 Local public facilities	
	HB13 Local traffic conditions	

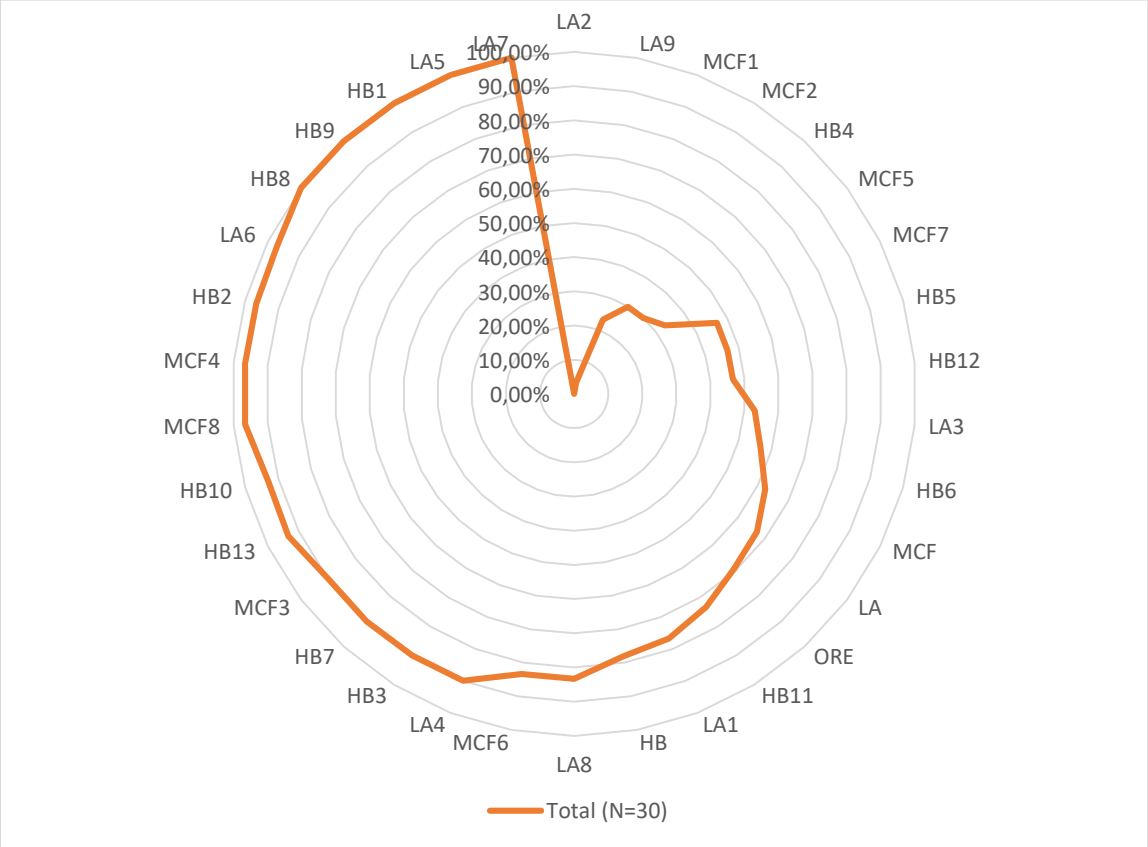
Figure 15: Holistic distributions of satisfaction rates of the Overall residential environment (ORE), Three evaluation aspects of MDWRFs and the 30 challenges

They are also 8 challenges that had rates of satisfaction that were below 50% and are livelihood and assets (alternatives to municipal water, income generating activities), habitability (local public facilities, green areas and landscape, private outdoor spaces)

and management of common spaces and facilities (public security in neighbourhood, fire safety, building communal spaces, maintenance of communal spaces).

5.6 Discussion

Figure 17 below shows the satisfaction rates as a whole (N=30). 9 challenges obtained low satisfaction rates holistically below 50%.



LA Livelihoods and Assets	HB Habitability	MCF Management of common spaces/facilities
LA1 Opportunities	HB1 Safety in home	MCF1 Communal spaces in building
LA2 Income generating activities	HB2 Privacy in home	MCF 2 Maintenance of communal facilities
LA3 Food supplementing activities	HB3 Outdoor noise	MCF3 Domestic waste collection
LA4 Assets and storage	HB4 Private outdoor noise	MCF4 Security in building/complex
LA5 Relationship with neighbours	HB5 Green areas and landscape	MCF5 Fire safety
LA6 Schooling facilities	HB6 Activity places	MCF6 Building maintenance
LA7 Cost of living	HB7 Pedestrian walkways	MCF7 Public security in neighbourhood
LA8 Water supply	HB8 Population density	MCF8 Environmental tidiness
LA9 Alternatives to municipal water	HB9 Access to transport	
	HB10 Sense of belonging/identity	ORE Overall residential environment
	HB11 Local service facilities	
	HB2 Local public facilities	
	HB13 Local traffic conditions	

Figure 16: Holistic satisfaction rates of the Overall residential environment (ORE), Three evaluation aspects of MDWRFs and the 30 challenges in order of strength.

This indicates the main weaknesses when it comes to challenges that are faced by the residents of medium density walk-up residential flats (MDWRFs) in Harare. The other 19 of the challenges that were evaluated obtained holistic satisfaction rates that were high (over 50%) and this gave an indication of the strengths in terms of MDWRFs living.

The strengths of MDWRFs comprised of livelihoods and assets', ***relationship with neighbours, cost of living, water supply, assets and storage, schooling facilities, opportunities such as renting out, food supplementing activities***, habitability's ***safety in home, population density, access to transport, privacy in home, sense of belonging and identity, local traffic conditions, outdoor noise, local service facilities, activity places*** and management of common spaces and facilities', ***security in building/complex, building maintenance, domestic waste collection, environmental tidiness, pedestrian walkways***. The weaknesses of MDWRFs are livelihood and assets' ***alternatives to municipal water***, habitability's, ***communal spaces in building, maintenance of communal facilities, private outdoor spaces, local public facilities***, management of common spaces and facilities' ***fire safety, public security in neighbourhood, green areas and landscape***. In the next section, the main strengths and weaknesses of living in MDWRFs in Harare will be discussed in detail.

5.6.1 Strengths of Medium Density Walk-up Residential Flats (MDWRFs) in Harare

1. *Livelihood and Assets strengths*

Under this section, challenges that scored positive satisfaction rates in the 90th percentile were considered the major strengths. These were cost of living (100%), relationship with neighbours (100%) and schooling facilities (97%). Willowvale flats have benefited from the central location within existing Highfield suburb where schools and water supplies are well established (Chikede, 2015). Affordability of these walk-up flats can be attributed to the fact that all the beneficiaries have a post school

qualification and are part of the working population in Harare with a family income above USD201 (R3417) of which 63% of the households earn above USD501 (R8517). This is different from the findings of Saramatuga, (2013) and Mabasa, (2017) who found out that residents of multi-storey housing who previously resided in slums regards their new environments as not affordable. The residents at Willowvale flats managed to create small gardens where they grow leaf vegetables to supplement their diet (see figure 17 below). In addition, Willowvale flats are located in close proximity to major transport routes (which makes transport cost affordable), Willowvale and Southerton industrial areas (opportunities for employment and reduced travel distance to work), existing suburb of Highfield- see figure 18 below (they benefit from existing facilities such as shops, schools and vegetable market at Machipisa).

Figure 17: Residents vegetable garden that help supplement family nutrition. Picture also shows absence of balconies in the buildings.

Source; Author ‘s own photograph, 2020.

Figure 18: Show the existing suburb of Highfield to the left where residents benefit from existing facilities.

Source; Author ‘s own photograph, 2020.

60% of the residents surveyed were tenants who chose to reside after careful consideration on whether they would afford or not. They also spend most of their time at work which means interaction with neighbours mostly happens on weekends and for limited times which improves greatly the relationship with neighbours and social capital.

2. *Habitability strengths*

Safety in home (100%) and security in building or complex (100%) had high positive satisfaction rates despite the high burglary rates in Highfield because the residents installed burglar gates on doors and windows (see figure 19 below) and organised themselves to hire security guards for manning the gate for every four blocks at night (see figure 20 below). In researches on high rise housing by Shaftoe, (2007) and Li, (2013) safety and security in building achieved low ratings. This gives medium density housing has an edge over high-rise housing in terms of safety and security. Long hallways and entrances used by many people make it difficult to identify loiterers in high rise housing (Li, 2013) which is not the case when it comes medium density residential walk-up flats.

Figure 19: Show the burglar gates installed by residents at entrance and windows to improve security in home. Picture also show absence of fire hose reels in corridors.

Source; Authors ‘s own photograph, 2020.

Figure 20: Show wooden guardhouse and gate at entrance to improve security in complex.

Source; Author ‘s own photograph, 2020.

84% of the households have 4 or less members which contributes to the low population density and scored a high positive satisfaction rate of 100%. A low population density is an important factor in reducing outdoor noise (90%). This is also aided by the existence of a buffer between the major highway and the flats. Privacy in home (96,67) was also ranked high because the apartments are partitioned with brick and mortar which minimise sound from other apartments. Inside toilets and kitchens mean that a household is self-contained and can spend a long time without getting out of the house. The MDWRFs were constructed as a new form of housing in an old suburb which made them have added affluence in the area. This gave the residents a high

sense of belonging (93,33%) as they were considered better off and are a part of the renewal of the suburb. Local traffic conditions (93,33%) is also a major strength. In some countries such as South Africa this has been attributed to high investment in infrastructure but in Harare, no major developments have taken place for a long time. The improvement has been due to decline of the economy and closure of businesses and industries such that not many people are going to work during peak times. As much as there is not much infrastructure for pedestrian walkways (90%), the residents felt satisfied because they can move freely without being disturbed by vehicular traffic.

3. *Management of common spaces and facilities strengths*

The major strengths under this section include environmental tidiness (96,66%), security in building (90%) domestic waste collection (90%). This is consistent with the findings of a research by Li, (2013) who also emphasised the importance of maintaining an indoor environment that is of a high quality in multi-storey housing. Figure 21 below shows buildings and surroundings free of waste and graffiti.

Figure 21: Shows buildings and surroundings free of waste and graffiti. The photographs also show closeness of the blocks of flats.

Author ‘s own photograph, 2020.

Most industries in the nearby Willowvale industrial area have been producing below capacity for a long time which contributes to the low pollution on the local environment. Where the municipality fails to collect the waste in time, local private players come in to collect for a small fee. In addition, these three areas compel the residents to

cooperate in terms of their management because failure to do that may lead to health problems due to a dirty environment and loss of property if buildings are not secured.

5.6.2 Weaknesses of Medium Density Walk-up Residential Flats (MDWRFs) in Harare

1. *Livelihood and Assets weaknesses*

Under this section, alternatives to municipal water scored the least satisfaction rate (0%) which makes it a major challenge. This is consistent to the findings of OECD, (2010) which points out that developing countries are failing to develop water related infrastructure. There are no arrangements by the municipality to assist the residents in times of water crises. In other areas for example in the nearby Highfield, the residents have assisted themselves by digging wells to fetch water during times when municipal water is erratic. Others who are better off managed to sink boreholes on their plots. The residents of MDWRFs do not have the land to either dig wells or to sink boreholes which explains the high rate of dissatisfaction. Some residents have installed elevated tanks for harvesting water from municipal supply (see figure 22 below). The harvested water is then saved for use during periods of water shortages.

Figure 22: Show elevated water tanks installed by residents to harvest from municipal supply.

Author ‘s own photograph, 2020.

2. *Habitability weaknesses*

Private outdoor spaces were given low satisfaction rate of 30% by the respondents. The design of the flats did not allow space for balconies such that the residents are confined to the indoor spaces (see figure 17 above showing building structure with no balconies). The small corridor on the entrance to the apartment is not enough and it is

also shared with the neighbours. Balconies save a lot of purposes such as drying clothes, storage and relaxation. This is consistent with Li, (2013), who found out that multi-storey housing lack in building auxiliary spaces and people end up using corridors and stairs for storage. This is also the case in the housing estate where no spaces are created for the elderly and children to carry out their leisure activities (*ibid*.). Virtually little landscaping has been done on the surroundings and there are no green areas which explain the low satisfaction rate (46,67%) in this regard. This is also the case with local public facilities. No local public facilities were specifically allowed for in the construction of these flats which makes it difficult for children to find areas to play considering that they do not also have a yard. In addition, there is no single area of designated public space where one can find seating, shade nor grassing. (see figure 21 above which shows closeness of building with little spaces in between)

3. *Management of common spaces and facilities weaknesses*

The weaknesses that emerged under this section include communal spaces in building (23,33%) and maintenance of common spaces (30%). There are not many communal spaces in the dwelling building and maintenance is also a challenge. In most cases the maintenance requires households to combine resources to pay for the services which is often challenge given the recurrent harsh economic environment currently experienced in the country. Fire safety also scored a low satisfaction rate (33,33%). Despite the low risk of fires because of the medium densities, absence of fire hose reels as well as no alternative escape route is a reason for worry (see figure 19 above). This makes escaping the fire danger a challenge especially for residents in the upper floors. Households may be cautious in their homes when it comes to reducing risk of fire, but they have no control on what will be happening in the next household. Neighbourhood public security (46,67%) also achieved a low satisfaction rate. This is because of the location of Willowvale flats in the Highfield low income suburb that has a high crime rate (see figure 18 showing Highfield location next to the flats)

5.7 Conclusion

The second and third research questions have been answered in this chapter:

What are the residents' evaluation of the challenges faced when living in MDWRFs in Harare?
What are the strengths and weaknesses of the current form of MDWRFs according to residents' evaluation in Harare?

Basic information on the residents contained in the questionnaire survey was analysed in the first section and included demographic features and environmental information. There were different types of households in the sample which fell in the low to middle income groups. The residents are mostly in the working age group and majority indicated that their ideal housing form will be single storey family house with yard.

The section that followed analysed the evaluation of the challenges holistically (N=30) which were classified under the three distinct categories of livelihoods and assets, habitability and management of common spaces and facilities. The results indicate that the majority of respondents were satisfied with the residential environment and the highest satisfaction achieved in habitability (78,51%) section. Highest dissatisfaction was in management of common spaces and facilities (37,5%). After the holistic evaluation and analysis of each aspect of the residential environment, the strength and weaknesses of medium density walk-up residential flats were also summarised. The problems gave an insight on the weaknesses that are posed by MDWRFs. There is need for further study and analysis of these in order to find solutions for improving the MDWRFs environment in the future. The next chapter will focus on the conclusions and make recommendations for future development.

Chapter 6 Conclusions

6.1 Introduction

The research findings are concluded in this chapter together with the solutions to the research questions that were raised in the first chapter. This is followed by planning and design recommendations for future Medium Density Walk-up Residential Flats (MDWRFs). The study limitations are also explained and research themes that can be further explored are suggested.

6.2 Conclusions

The main aim of this research as discussed in the first chapter is:

To investigate the main challenges faced by residents moving into medium density walk-up residential flats in Harare.

The discussion that follows explores the practical implications of the findings of this study.

6.2.1 Overview of the research

1. The medium density walk-up residential environment

Zimbabwe has so many housing forms, but current policy (The National Human Settlements Policy of 2019) embraces multi-storey housing as a dominant housing form because of the benefits of land savings and reduction in greenhouse gas emissions (The Sunday Mail, 08/11/2020). In the quest to satisfy the aim of the research mentioned above, I have made an investigation on the Willowvale flats neighbourhood. The residents of the area are mainly civil servants who have a family income below USD1000 (R17000). The challenges that they face in their living environment were evaluated using a questionnaire survey. The data that was received from the surveys was analysed in relation to the reviewed literature in chapter two.

The findings indicated that the living environment has an influence on the livelihood and assets, habitability and how common spaces and facilities can be effectively managed. Generally, the satisfaction level on the challenges associated with MDWRFs in the area studied is high (3.82) when measured using a Likert scale of five points. According to the findings, most of the respondents (73%) prefer to live in a single storey house with yard. This contradiction is an indication that satisfaction with the housing form does not necessarily translate to preference in that housing form. It also indicates that the present high rate of satisfaction may fall if the preferred form of housing is made available.

2. Weaknesses of Medium Density Walk-up Residential Flats

The weaknesses identified in the study had not been documented in any studies because of lack of research in the context of Zimbabwe. These are ***alternatives to municipal water*****,** ***communal spaces in building, maintenance of communal facilities, private outdoor spaces, local public facilities*****,** ***fire safety, public security in neighbourhood and green areas and landscape.*** These problems were as a result of strict budgetary constraints at the time of planning and implementing the project. It is clear that most of the weaknesses were as a result of lack of the service or the facility rather than having it poorly designed nor being inadequate. In addition, providing these services would have meant an increase in the cost of purchasing the flat which would have made them not affordable considering that the target group was low-income earners. For example, boreholes could have been installed as backup in times where there are erratic municipal water supplies. The same also applies to local public facilities and communal spaces. In a bid to place the Willowvale flats close to the core of the city where there are existing opportunities and other public facilities, the neighbourhood ended up being located in an area that is not secure to the public because of the high crime rate in Highfield which explains low satisfaction on this aspect.

3. Strengths of Medium Density Walk-up Residential Flats

In the general studies on medium density walk-up housing that were carried out in low-income communities that formerly resided in slums, the main strengths that had been identified are having income generating opportunities such as renting out of rooms, informal trading, common spaces and basic services (Mabasa, 2017; Saramatuga, 2013). In comparison, this study found, that cost of living, relationship with neighbours, schooling facilities, safety in home and building were among the major strengths. This shows the significance of making sure that design of MDWRFs factor in reducing living costs such as maintenance, security as well as safety from hazards such as fire. The security in building was also a major strength which is inconsistent with studies carried out in high-density high-rise housing (Li, 2013; Adams 1992; Mesch and Manor 1998). This shows the need for a limit on the densities in low income locations such as Harare in order to avoid the high cost of security that come with increased densities.

6.3 Urban planning and design implications of Medium Density Walk-Up Residential Flats (MDWRFs)

The research structure that was adopted in this study to address the challenges faced by residents of MDWRFs looked at the three aspects of the residential environment namely livelihood and assets, habitability and management of common spaces and facilities. The study found that, medium density residential walk-up residential flats (MDWRFs) can contribute immensely to livelihood and assets if they are planned, designed and located appropriately. The rearrangement can be on the area inside the home space together with the area outside the home space. In as much as the residents are employed, the current economic crisis in the country is not showing signs of decline and the MDWRFs need to be reshaped so that they benefit residents who increasingly face dwindling incomes, job losses and ageing municipal infrastructure. This can be possible with government assistance in the form of subsidies that are well structured in line with the different levels of income in the country. It is also found out in the study that development densities that are appropriate, planning that is centred around people and carefully designed landscapes contributes to MDWRFs that are more habitable. Lastly the way the common spaces managed, and their adequacy contribute immensely to the long-term existence of MDWRFs to avoid inconvenience

to the residents as well as reducing the likelihood of these environments slowly becoming future urban slums.

6.4 Contributions to Medium Density Walk-Up Residential Flats (MDWRFs) research in Harare

The second chapter on literature review identified a gap in MDWRFs documented research in that it is scarce in the Zimbabwean context. The focus of this study was on filling this research gap and contribute to the body of knowledge. In a way this was also a limitation in conducting this research in Harare. The MDWRFs which have been in existence for a very long time coupled with the recent advocacy to develop vertically necessitates the need for knowledge on the challenges that people face when living in this form of housing. Lessons that benefit both students and professionals have been provided in this study and this will go a long way in aiding those who will engage in future MDWRFs studies. In addition, the study has laid bare strengths of MDWRFs which can be exploited to increase satisfaction as well as the weaknesses which need to be improved on to get maximum benefits from residing in this housing type. The finding on affordability exposes the fact that the government is neglecting the poorest of the poor in its list of beneficiaries and favouring its workers who can make contributions towards the purchase of the house. There is need to include the unemployed beneficiaries in the government model of future MDWRFs supported by different forms of subsidies. This will give a better reflection of whether this form of housing can be the solution to housing problems among the poor.

6.5 Recommendations

The performance of every housing system is best understood by evaluating the challenges faced by those who use it on a day-to-day basis which is the residents. At the same time housing systems aims to provide residential environments that meet the needs of the residents. In pursuit of creating MDWRFs environments that give maximum satisfaction to the residents and in reaction to the findings of this research, I have made the following recommendations to those who are responsible for creating

the residential environment which are policy makers, urban planners, architects and developers.

1. The development of MDWRFs in Zimbabwe have been largely led by the government which has been facing fiscal constraints for a very long time. The study found out that most of the problems such as lack of private outdoor spaces, lack of community facilities and alternative sources of water has been as a result of absence of the facility rather than its inadequacy. Thus, it is recommended that the government form more partnerships with the private sector in order to improve the funding aspect of the MDWRFs. In order to avoid increasing the cost of the dwelling units because of these additional facilities the government can provide the land on which it is built for free so that funding can be used mainly on improving the residential environment.

2. The study has also found that the absence of facilities and services has been as a result of the developer trying to minimise the cost of the end product at the expense of the quality of the residential environment. The developers need to pay increased attention to the needs of the customers especially those with children, the elderly and the disabled. The government can make this possible by offering incentives such as subsidised land parcels, tax and/rates holidays to developers who incorporate such requirements in their designs. The absence of residents that are above the age of 60 can be attributed to the difficulty in accessing the apartments for the elderly especially in higher floors. Social profiling and understanding the needs of the residents is necessary to plan, design, construct and manage the housing development that guarantees sustainability into the future.

3. The study also found that some of the problems of the residential environment are due to poor design. The planning regulations should be improved such that the site plan cannot be approved without the minimum necessary public facilities. Local authorities should be capacitated to operate efficiently and be able to run their affairs with minimum interference from central government. Building design can also be improved such as providing a front balcony and take advantage of the existing slab at entrance as opposed to providing the

balcony at the back. This can go a long way in providing the residents with an outdoor private space that can be used for various activities such as relaxing, vending and drying clothes. A concrete roof can also be used at the top instead of roof sheeting and various activities can take place there to supplement income such as gardening, fish farming etc. to create self-sustaining communities.

4. The experiences of the residents of MDWRFs cannot be better understood without intensifying empirical research into this housing typology. The actual usage conditions of the residential environment are not clearly understood. There is a gap between those who create the residential environment and those who use it which has led to incompatibility with needs of the users (Gans,1968). Therefore, I recommend that there be intensification in terms of empirical studies in the area of MDWRFs which will form the basis upon which future neighbourhoods will be built.

6.6 Limitations of the study

This study sought to dissect the challenges faced by the residents of MDWRFs in Harare so that the strengths as well as the weaknesses are exposed and provide a foundation on which future developments of MDWRFs can be enhanced. In doing so, there has been limitations to the research which give rise to suggestions for future research. Firstly, due to time limitations the study has been based on a single case study as compared to a study that covers the whole nation. As much as the chosen case is regarded as a prototype of future developments that will follow, the challenges that are encountered may be relevant to this specific context. This may limit the recommendations given when applied in the general context. The second limitation is that of subjectivity as the research is based on the evaluation by the users as compared to the actual performance of the MDWRFs environment. A more comprehensive assessment of the problems can be achieved by increasing the number of case studies and a higher sampling rate which will also add objectivity into the study. Despite the limitations mentioned above, I am highly confident that the

research approach followed produced an investigation that is collaborative and well acquainted with the challenges faced by the residents of MDWRFs environment.

6.7 Suggestions for further research

Medium density residential walk-up flats (MDWRFs) are being promoted in the country as a solution to the housing problems being experienced. The Sunday Mail (08/11/2020) reported that the government reserved 40 percent of new housing projects for the construction of multi storey housing to curb urban sprawl. This necessitates the need to understand their performance in depth and also in different contexts. Future studies can focus on using more case studies in different locations in order to get a deeper understanding on the dynamics that are at play in this type of residential environment. Secondly, I suggest comparative studies for example comparing MDWRFs with other forms of housing especially the more preferred single storey house with yard so as to find out the qualities that give this form of housing an edge and try to incorporate those qualities in the future development of MDWRFs. Follow up studies can also be done after a certain period of time in order to see if the challenges faced by the residents will change with the changes in household profiles over time. Lastly with the expected boom in multi storey housing, studies can also focus on assessing the challenges being faced by residents who are not formally employed. There is a likelihood that the challenges that they face might be different from those residents investigated in this study who earn a regular monthly income.

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Appendix A Participant information sheet

University of the Witwatersrand
1 Jan Smuts Avenue
Johannesburg, 2000

Dear Sir / Madam

My name is David Manyunzu, and I am a Masters student in Housing and Human Settlements at the University of the Witwatersrand in Johannesburg. As part of my studies, I must undertake a research project, and I am investigating medium density walk-up flats. The aim of this research project is to find out the challenges faced by the residents as they move into this form of housing.

As part of this project, I would like to invite you to take part in answering a questionnaire. This activity will involve answering short straightforward questions and will take around 15 minutes. The questionnaire will be sent as an attachment on electronic mail or WhatsApp platform.

You will not receive any direct benefits from participating in this research, and there are no disadvantages or penalties for not participating. You may withdraw at any time or not answer any question if you do not want to. The survey will be completely confidential and anonymous as I will not be asking for your name or any identifying information and the information you give to me will be held securely and not disclosed to anyone else. I will be using a pseudonym (false name) to represent your participation in my final research report. If you experience any distress or discomfort at any point in this process, we will stop the survey or resume another time.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report. If you wish to receive a summary of this report, I will be happy to send it to you. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrec-medical.researchoffice@wits.ac.za

Yours sincerely,

David Manyunzu

Researcher:
David Manyunzu, 1454232@students.wits.ac.za

Supervisor
Mr. Neil Klug, Neil.Klug@wits.ac.za +27 11 7177688

Appendix B Formal consent form

Challenges of transition to medium density walk-up residential flats. A case of Harare.

I hereby confirm that I have been informed by the student researcher of the purpose, procedures, and my rights as a participant. I have received and understand the Participant Information Sheet.

I have also been informed of:

- □ the reasons why I was selected to participate in the research project.
- □ the nature of my participation in the form of a survey.
- □ the place and duration of the survey.
- □ the voluntary nature, refusal to answer, and withdrawing from the survey.
- □ no payment or incentives.
- □ no loss of benefits or risks.
- □ my identity will be kept anonymous.
- □ the information I provide will be kept confidential.
- □ how the information will be used and disseminated.

I **AGREE / DO NOT AGREE** to participate by undertaking the survey.

_____ _____

Participant's signature Date

Appendix C Questionnaire survey

Section 1: General Information

1. What is your evaluation of the environment of MDWRF?

Very Poor	Fairly Poor	Neither Nor	Fairly Acceptable	Very Acceptable
1	2	3	4	5

2. Which storey is your flat located?

❑ 1 ❑ 2 ❑ 3 ❑ 4

3. How long have you lived in the flat?

❑ ≤ 1 ❑ 2-3 ❑ 4-5 ❑6-7 ❑ ≥ 8

4. What is the tenure of your flat?

❑ Tenancy ❑ Owner-occupied

5. What type of housing did you live before moving into current house?

❑ Informal settlement ❑ Multi-storey ❑ Town house ❑ Single storey house in yard

Section 2: Personal Data

1. What is your sex?

❑ Man ❑ Woman.

2. What is your age?

❑ 18-39 ❑ 40-59 ❑ ≥ 60

3. What is your level of education achieved?

❑ O'Level ❑ A'Level ❑ Diploma ❑ Degree ❑ Postgraduate

4. How much income does your family earn per month?

❑ ≤Usd200 ❑ Usd201-500 ❑Usd501-1000 ❑Usd1001-2000 ❑ ≥Usd2000

5. How many dwellers reside in this apartment?

❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5

6. What is your ideal form of housing?

❑ Single family house with garden ❑ Low storey townhouse

❑ Walk-up flats ❑ High-rise apartments with lifts

7. What is the extent of your overall degree of satisfaction with the MDWRFs environment?

Extra Dissatisfied	Dissatisfied	Neither Nor	Satisfied	Extra Satisfied
1	2	3	4	5

Section 2: Livelihood and Assets

What is the degree of your satisfaction with the following aspects of your living environment

Evaluation / Factors	Very Dissatisfied 1	Fairly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Fairly Satisfied 4	Very Satisfied 5
1. Opportunities such as renting out					
2. Income generating activities e.g. workshop					
3. Food supplement activities e.g. Poultry, gardening					
3. Ability to keep key assets and storage					
4. Relationship with neighbours					
5. Schooling facilities					
6. Cost of living in MDWRFs					
7. Water supply					
8. Alternatives to municipal water					

Probe if the answer for question 1 up to 8 is to the extremes (i.e. 1 or 5)

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Section 3: Habitability

What is the degree of your satisfaction with the following aspects of your living environment

Evaluation / Factors	Very Dissatisfied 1	Fairly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Fairly Satisfied 4	Very Satisfied 5
1. Safety in home					
2. Privacy in home					
3. Outdoor noise					
4. Private outdoor space					
5. Green areas and landscape					
6. Activity places for the elderly and children					
7. Pedestrian walkways					

8. Population density					
9. Access to transport					
10.Sense of belonging & identity					
11. Local service facilities					
12. Local public facilities					
13. Traffic conditions in the area					

Probe if the answer for question 1 up to 8 is to the extremes (i.e. 1 or 5)

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Section 4: Management of Common Spaces and Facilities

What is the degree of your satisfaction with the following aspects of your living environment?

Evaluation / Factors	**Very Dissatisfied 1**	**Fairly Dissatisfied 2**	**Neither Satisfied nor Dissatisfied 3**	**Fairly Satisfied 4**	**Very Satisfied 5**
1. Communal spaces in buildings					
2. Maintenance of common facilities and spaces					
3. Waste collection domestically					
4. Security in building and complex					
5. Fire safety					
6. Building maintenance					
7. Public security in the neighbourhood					
8. Environmental tidiness					

Probe if the answer for question 1 up to 8 is to the extremes (i.e. 1 or 5)

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……

……

Appendix D Approval of title

UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG

Private Bag 3 Wits, 2050
Fax: 02711 7177009
Tel: 02711 7177007

Reference: Ms Olga Ndlovu
E-mail: olga.ndlovu@wits.ac.za

06 January 2021
Person No: 1454232
PAG

Mr DC Manyunzu
Erf78
Newtown
5140
South Africa

Dear Mr David Manyunzu

Master of Urban Studies: Approval of Title

We have pleasure in advising that your proposal entitled *Challenges moving into medium density walk-up residential flats; A case of Harare -Zimbabwe* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mr Yaseen Stoffberg
Faculty Registrar
Faculty of Engineering and the Built Environment

Appendix E Ethics approval

SCHOOL OF ARCHITECTURE AND PLANNING
HUMAN RESEARCH ETHICS COMMITTEE

SCHOOL OF ARCHITECTURE & PLANNING

CLEARANCE CERTIFICATE

PROTOCOL NUMBER: SOAP064/06/2020

PROJECT TITLE:	Liveability of post-colonial high rise residential flats in Harare – Zimbabwe
INVESTIGATOR/S:	Manyunzu, David (Student No: 1454232)
SCHOOL:	Architecture and Planning
DEGREE PROGRAMME:	**Master of Urban Studies (SEEC)**
DATE CONSIDERED:	21 August 2020
EXPIRY DATE:	21 August 2021
DECISION OF THE COMMITTEE:	Approved

CHAIRPERSON B C Boshoff
(Dr Brian Boshoff)
DATE: Signed under lockdown: 1.9.20

cc: Supervisor/s: Neil Klug

DECLARATION OF INVESTIGATORS

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to endure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

Signature **Date** 2/9/2020

School of Architecture & Planning
University of the Witwatersrand
Private Bag 3 Wits 2050
Johannesburg South Africa
www.wits.ac.za

T +27 11 717 7623
F +27 11 717 7649

Appendix F Plagiarism declaration

Faculty of Engineering and the Built Environment

Private Bag 3, Wits 2050, South Africa * Telephone (011) 717 – 7007 * Fax: (011) 717 7009 * Email: febe.pg@wits.ac.za

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I DAVID CHINAMASA MANYUNZU (Student number: 1454232) am a student registered for the degree of MUS HHS in the academic year 2020.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this in not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: _____ Date: 15/03/2021