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Public–Private Partnership in Providing Affordable and Gap Housing in Inner-City Areas: City of Cape Town Case Study

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Abstract

Developers in South Africa are confronted with several constraints in supplying affordable housing to low-income earners and this includes the non-availability of land, end-user un-affordability, poor planning, and limited partnerships between public and private sector role players. Apartheid and its' associated spatial planning served to locate and exclude the poor in dormitory townships far away from centres of economic, employment and major income opportunities. Consequently, social inequalities have increased dramatically between the South African population along racial lines. Furthermore, South Africa's inner cities lack systematic and comprehensive affordable housing developments, incentivised by the state and capable of attracting private investors.

This study explores measures capable of enhancing and restructuring affordable housing development in inner-city areas, with Cape Town as case study. For the purpose of this research, the affordable housing market is defined as those households with incomes which are too high to receive free-government subsidised houses, but too low to afford even the cheapest option on the market and is also referred to as the 'gap' market. This research was conducted with the aim to determine what can be done through partnerships between the private and public sectors to stimulate the investment and development of well-located and affordable housing. Therefore, this research is solution-based, focusing on ways to address challenges and maximise policy, financial, structural instruments and other mechanism that exist within the affordable housing sector.

The findings indicated that the use of public-private-partnerships in South Africa in affordable housing delivery is still in its incipient stage. Therefore, it is advisable to learn from international experiences where public-private-partnerships are used to provide affordable housing. The study identified various constraints on providing housing through public-private-partnerships, as well as possible enablers, investment, and incentive strategies. Recommendations made, including legal, regulatory, and finance mechanisms that can assist policymakers in paving the way for successful PPP implementation. The findings highlighted the most frequently used, suitable and recommended types and forms of public-private-partnerships in housing delivery.

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List of Acronyms

ADB	Asian Development Bank
AGCA	Associated General Contractors of America
DHS	Department of Human Settlement
CAHF	Centre for Affordable Housing Finance in Africa
CoCT	City of Cape Town
CMCH	Canadian Mortgage Housing Company
COCT	City of Cape Town
FLISP	Finance Linked Individual Subsidy Programme
EMEs	Emerging Market Economies
EWS	Economically Weaker Section
GDP	Gross Domestic Product
HUDC	Housing and Urban Development Company
IFC	International Finance Corporation
LSM	Living Standards Measure
MDGs	Millennium Development Goals
NCPPP	National Council for the Public–Private Partnership)
NDP	National Development Plan
OECD	Organisation for Economic Co-operation and Development
PFI	Private Finance Initiative
PPP	Public–Private Partnership
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
SPV	Special Purpose Vehicle
TCHC	Toronto Community Housing Corporation
TDA	Transport and Urban Development Authority
UK	United Kingdom
UNEC	United Nations Economic Commission for Europe
USA	United States of America
WC	Western Cape

CHAPTER 1: INTRODUCTION

Urbanisation is increasing globally, especially in Africa and Asia. According to United Nations (UN) (2014) more than 50% of the world's population currently reside in urban areas, with this percentage projected to reach 75% by 2050, representing an estimated increase of about 60 million new urban dwellers Consequently, there is pressing demand for land for development within urban areas as well as for the associated urban infrastructure (UN,2017).

Sub-Saharan Africa is experiencing rapid urbanisation and it is projected by 2050, that 1.2 billion sub-Saharan African residents will be residing in urban areas, with an annual growth of 4.5 million new residents in informal dwellings (World Bank Group, 2015). Combined with rising construction costs and mortgage rates, these factors have made it nearly impossible for the majority of urban inhabitant residents to afford either renting or buying a home. With the migration to urban areas, the challenge for adequate and effectual strategies and action has become a priority owing to the enormous population growth in Africa, which has increased the demand for housing (CAHF, 2012). The surge of migration from rural to urban areas puts pressure on governments to provide affordable housing, essential services and infrastructures in towns and cities in sub-Saharan Africa.

South Africa faces an ongoing housing challenge, and this study investigate the link between urbanisation and the need for affordable, well-located housing. According to CAHF (2018), South Africa's government reported a nationwide housing shortage of 2.1 million dwellings in 2017, with the housing delivery rate estimated only at 136,000 homes per year. According to, on government forecasts, just 1.5 million of the planned 2.1 million housing units will be available by 2030. Meanwhile, the population is continuing to increase, and housing demand is outstripping supply. South Africa's housing sector is therefore not delivering at the requisite rate and scale. It is also not serving the diversity of the housing market in terms of affordability and the Living Standards Measure (LSM) as income is diverse and highly unequal (CAHF, 2018).

Burgoyne (2008) points out the disparities in housing provision between developing and developed countries. There are considerable differences in urbanisation patterns in different regions in developed countries, Likewise, urban migration differs in cities in sub-Saharan Africa and, by
extension, South Africa. The latter is experiencing rapid growth in urbanisation, making the need for affordable housing and inner-city areas urgent. The challenges associated with urbanisation and the need for housing are not restricted to South Africa; they are global. The issue of migration to cities is an ongoing phenomenon, as large numbers of migrants are expected to become urbanised, although it may fluctuate between towns and countries (Burgoyne, 2008). The issue of housing delivery in urban areas in South Africa had presented a significant challenge during the apartheid era and more so since the democratic elections in 1994 (Burgoyne, 2008). There are various issues linked to the delivery, process, and housing

allocation, and these will be discussed in this section. According to Huchzermeyer (2001), the launching of the Housing White Paper in 1994 initiated discussion around housing policies, which extended to issues such as gap housing.

According to the report of National Development Plan, 2030, most people staying in townships in South Africa cannot access the mortgage bond because of the high rate of unemployment and low salaries. In South Africa, 15% of households have access to bond financing. Approximately 60% of households qualify for subsidised housing, leaving a category of around 25% for a wholly subsidised house but not receiving enough to qualify for a bond. In this study, affordable housing refers to the housing market comprised of households earning between R 3500 and R 15 000 per month, usually referred to as the "gap market" (RSA, 2019). These households have income which is too high to receive free-government subsidized houses but too low to afford even the cheapest option on the market. In other words, they are over-qualified to receive free-government subsidized houses yet below the income threshold for qualifying for a conventional private sector mortgage.

It is noteworthy that the government has stated its intention to review the various housing policies and development in South Africa since 1994. However, it failed to adequately provide affordable housing to the people categorised in the gap market. (Tissington, 2011). Public housing allocation and delivery processes in South Africa focus primarily on the lower end of the housing market, to the exclusion of gap housing. Many variables influence the housing delivery rate and the application of housing policies. These include – among other things – financial as well as capacity constraints. There is also influences that originate from the lack of land and resource allocation, which poses a significant challenge (Burgoyne, 2008). In South Africa, access to mortgage finance is mainly limited to the bracket of high-income earners, and consumer indebtedness remains a serious concern for policymakers, making housing affordability in the country a major critical challenge. According to CAHF (2019) in 2019, the cost of the cheapest newly built house by a contractor in an urban area, was estimated at R 436,200. However, based on the current mortgage terms, this expense can only be afforded by 20.4% of the households residing in urban areas. According to CAHF (2013), 6 million residential properties were registered in the Deeds Registry in 2013, with 40% of these valued at less than R 500,000, making them affordable with 100% bond financing to households earning less than R 16,000 per month. However, the shortage of affordable housing is still a significant challenge according CAHF's report (2013), which shows that about 88% of South Africa's population earns a household income of less than R 16,000 per month.

The focus of the South African government is on the supply side by providing low-income households with subsidised housing, including social rental housing, with some funded through the Finance-Linked Individual Subsidy Programme (FLISP), targeting the gap market. In 2019, it was estimated that 4 million housing opportunities had been delivered since 1994, however, the backlog remains enormous, estimated at between 2.3 million and 3.7 million units. In contrast, annual delivery by the state is insufficient to meet demand (CAHF, 2018).

According to the figures published by the URERU 2018 report, in order to address the backlog in the next 10 to 15 years in Cape Town, an estimated rate of 30,000 dwellings per year must be delivered. However, the maximum number of formal houses delivered every year was estimated at only 10,000. Approximately half of these are government-subsidized homes, with the other half delivered through the formal market. This delivery serves 0.8% to 1% of the city's total households. Household growth was estimated at an increasing rate of 1.5-2% per year, resulting in a growing shortfall (McGaffin, 2018).

In South Africa, it is the responsibility of the Department of Human Settlement (DHS), guided by the National Development Plan (NDP), to deal with the issue of housing affordability. The aims of the NDP are combined in the proposition, which states that they aim to transform human settlements into efficient spaces and ensure that citizens have close access to their places of work (RSA, 2019). It is argued in this research that the provision of affordable housing is a form of public service.

The most common way that has been used by governments worldwide to provide a public service, is to form partnerships with the private sector. One of the main reasons governments have to engage and collaborate with the private sector is the limited resources available to the public sector, contrasting with the private sector's access to finance, expertise, and transfer risks (Iwegbuna,2019)Public Private Partnership (PPPs) are long-term arrangements between the government and a private partner wherein the private partner provides and finances public services using a capital asset, while sharing the costs and other possible associated risks (OECD, 2012). PPPs come in different forms, such as non-profit or commercial ventures. It is worth noting that housing solutions depend on the cooperation of both private and public resources. In this manner, benefits and risks may be shared "ibid."

As the need for affordable housing has grown, governments in emerging economies have recognized the necessity of leveraging their limited resources to encourage the private sector to enter the market. The World Bank forecasts that by 2030, 100,000 new housing units per day will be required to fulfil the demand (World Bank Group, 2020). Role players involved in PPPs vary but tend to include governmental and private institutions as well as non-governmental and international organisations. The World Bank (2020) defines PPP as "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance". The European Investment Bank describe PPPs as a 'relationship between the private sector and public bodies, often with the aim of introducing private sector resources and expertise in order to help provide and deliver public sector assets and services' (EIB, 2004, p.2).

There is, thus, internationally a broad but consistent agreement on the concept of PPPs. Generally, with a PPP, the private and public sectors work together to provide public services that would be difficult if restricted to one sector. In other words, PPPs provide services that would not otherwise be provided. Other components of the meaning of PPPs include improvements in the schedule, quality, and risk (Vrooman, 2012). Fiszbein and Lowden (1999) attempted to combine different definitions of PPPs and extended the

definition to reaffirm that it is the pooling of resources (financial, human, technical, and intangibles, such as information and political support) from public and private sources to achieve a commonly agreed goal.

1.1 Context of the Research Problem

South Africa is among the countries whose municipal governments are struggling to meet the demand for affordable housing and other essential urban services because of limited financial resources (DHS, 2017). Developers in South Africa are faced with several constraints in supplying affordable housing for low-income earners and this include the non-availability of land, end-user un-affordability, poor planning, high cost of construction and housing finance in urban areas and limited partnerships between governmental institutions. (DHS, 2017).

According to Urban Landmark (2020) apartheid spatial planning served to locate the poor further away from the economic and employment centres, while significant income and social inequalities existing between the South African population. Furthermore, the inner cities of South Africa lack systematic and comprehensive affordable housing developments incentivised by the state and capable of attracting private investors.

One of the fundamental rights guaranteed by the Constitution of the Republic of South Africa is "access to shelter and wealth creation through housing ownership." However, lower middle income earners face difficulties securing the housing financing they need to make necessary improvements to their living situations and realize this right. The reluctance of private banks to provide 100% mortgages to those with low incomes is a major source of the country's housing affordability crisis (DHS, 2017). Some lower middle-income earners, whose loan applications are rejected by banks due to lack of affordability, resort to micro lenders, who charge excessive interest rates for incremental loans, while others are left stranded. In addition, land may be unlawfully occupied due to the housing crisis, leading to confrontations between landowners and squatters. Therefore, it is the responsibility of the government to assure residents' access to mortgages or housing availability. Despite this, other factors contributing to instability in the country include inflation, a dwindling government budget, and a lack of suitable unallocated land "ibid.

The failure of the South African government to provide housing for lower middle-income households is aggravated by the fact that the middle and upper classes dominate the housing market in inner city areas in cities as as Cape Town. Access to finance remains the most significant barrier to the provision of housing lower-middle-income consumers face due to issues such as creditworthiness and affordability, while alternative innovative approaches have yet to be attempted (DHS, 2017).

The government's inability to meet the demand for affordable housing and the limited resources at its disposal, necessitates the private sector's inclusion in providing public services such as affordable housing. This should be done in order to reduce the gap between the rising need for affordable housing and the

limited supply, by dividing up the associated investment risks and pooling the public, private sector and participants' financial, human, technical, and non-tangible resources (Iwegbuna,2019).

As the need for affordable housing grows, the public-private partnership (PPP) model is seen by governments across the world as one of the ways to optimize the state's limited resources (financial, human, and technical) for affordable housing delivery (World Bank Group, 2020).

1.2. Problem Statement, Research Question and Research Objectives

Problem Statement

In accordance with the discussion above, the problem statement can be stated as follows:

> As the need for affordable housing increases, the lack of government expertise, capacity and limited resources severely constraints the creation of affordable housing for the 'gap market', i.e., households have income which is too high to receive free-government subsidised houses but too low to afford even the cheapest option on the market. It is critical that affordable housing opportunities are provided in inner-city areas with proper amenities and social facilities and are close to economic and job opportunities.

Research Question

In what ways can public-private partnerships (PPPs) contribute to providing housing opportunities for low- and middle-income earners within the gap market in inner-city areas?

Research aim

This study was conducted with the aim to investigate the ways to which public private partnerships (PPPs) can contribute to alleviating the affordable housing shortage in inner-city areas for lower middle-income earners by promoting the provision of affordable housing to the gap market.

Research Objectives

- To ascertain the impact of affordable housing shortages for lower middle-income earners in inner city areas in South Africa.
- To investigate current public sector policies and programmes aimed at providing gap housing opportunities within inner city areas.
- To investigate the concept of public–private partnership as an approach and tool to better understand its potential contribution towards providing affordable housing for lower middle income earners.
- To propose a PPP framework as well as financial and non-financial measures that will attract both investors and developers to address the issue of housing unaffordability in inner-city areas.

Research Proposition

The research proposition to be tested in this study is: The implementation of public–private partnerships (PPPs) can be used as a housing programme and a basis to stimulate the provision of affordable housing opportunities for lower middle income earners residing in inner-city areas in South Africa.

1.3 Outline and Structure of the Report

Chapter One provides an introduction and background to the area of research; place the research problem in perspective. It includes the problem statement, the research questions, proposition, aims and objectives.
Chapter Two focusses on the literature review and includes a theoretical and conceptual framework. It explores the guiding concepts underlying this research as well as the work and scope of previous studies conducted in the same field of study.
Chapter Three describes the research approach adopted for this study. It describes the theoretical framework for the applied approaches and gives the justification for the use of Cape Town as case study.
Chapter Four presents, analyses and interprets the findings of the case study.
Chapter Five provides conclusions and recommendations based on the study findings and literature review and suggestions for future study.

CHAPTER 2: LITERATURE REVIEW

This chapter reviews the literature on the current policies and programmes available in the country to promote the provision of affordable housing. The chapter begins by examining the South African housing policy context and the country's affordable housing market, including affordability and shortage. The challenges encountered by consumers in the gap market and the housing market issues on both the demand and supply sides are also discussed. Furthermore, the chapter discusses how the mechanism of public-private partnerships operates and the worldwide applications of various forms of these partnerships (PPPs). The chapter ends by providing the case study synthesis, including the key issues and lessons learned from the applications of those international examples. The chapter concluded by highlighting the key patterns identified in the reviewed literature, which served as the basis for the research conceptual framework.

2.1 Housing Policy Context in South Africa

South Africa's housing development mandate emanates from the country's 1996 Constitution. Section 26 of the Constitution guarantees everyone access to adequate housing (SERI, 2011). However, according to research published by SERI on the Review of Housing Policy and Development in South Africa, more than 2.1 million households in South Africa do not have adequate housing, and millions of people require housing facilities (Tissington, 2010). Therefore, the government must ensure that all South Africans have access to housing, essential services, materials, facilities, and infrastructure in a progressive manner. Consequently, It is the government's responsibility to take possible legislative, administrative, financial, educational, and social measures to address these issues and fulfil its housing obligations (DHS, 2019).

Housing on the scale required by the government is not being provided at a sustainable rate, and there is growing evidence that South Africa's current settlement strategy and practice will not be able to achieve the UN's Millennium Development Goal of ‘slum-free cities’. (Tissington, 2011). The state's own goal of ‘eradicating informal settlements by 2014’ was not realised.(PSAM, 2014 p.1) The provision of affordable and gap housing will impact on the reduction of the current prevalence of informal settlements in the country as it will improve the overall efficiency of the housing market (SERI, 2018). A number of critical issues have not been adequately addressed, and some innovative solutions have been recommended, including the unlocking of well-located land in urban areas for residential development; the linkage of large-scale infrastructure and services to new housing projects; and the provision of interim services and improvements for millions of households (Hogarth, 2015).

Unlocking well-located land in an urban area for residential development is a key concern of this research, which addresses the issue of inadequate and affordable housing for households within the ‘gap’ market. There is a dynamic relationship between current housing policies and their application. The issue of policies and procedures impacts more on vulnerable sections of the community (Burgoyne, 2008). The Housing White Paper addressed the national housing policy in response to the challenge of housing in South Africa,

attributable to the growth of the population and smaller households (Huchzermeyer, 2001; Tissington, 2010).

2.2 Housing Shortage in South Africa

The determination to eradicate housing shortages is under the global discussion of meeting the Millennium Development Goals (Huchzermeyer, *2011; Williams*, 2016). To create 'a more equitable and inclusive society that provides a decent quality of life for all citizens, South African cities share a similar world-class vision' (Williams, 2016 p.3). According to the NDP, it is the responsibility of the state to find better and possible solutions for creating spaces that are liveable, equitable, sustainable, resilient, and efficient to support social cohesion and other economic opportunities (RSA, 2020).

The South African Constitution (Sections 24, 26, and 27) and the Bill of Rights guarantee everyone the right to a safe environment, adequate housing, and essential services. Therefore, the state should eliminate apartheid-era urban planning and establish more humane and environmentally sustainable living and working conditions (RSA, 1994). Nevertheless, people in South Africa still live in a complex network of towns and cities that account for 85% of the country's economic activities. Although according to projected statistics, South African cities and towns face various challenges, 7.8 million people are expected to live in cities by 2030, with a further 6 million projected to do so by 2050, putting pressure on South African municipalities to deliver services (RSA, 2020). A significant increase in property values has contributed to an average house price, making housing unaffordable for many South Africans, and has further excluded some income groups from inclusion in the property market. Property value increases have primarily benefited middle-and higher income earners. There is little understanding of the housing needs of the lower-middle income earners in South Africa. The relationship between where people work and live is not always taken into consideration (RSA, 2020).

The shortage of affordable housing remains a major crisis in South Africa, as evident by the poor quality of living conditions in communities that lack adequate infrastructure and social amenities, even though RDP houses have been built within the context of an approved housing policy known as 'Breaking New Ground, 2004 (BNG) (Williams, 2016). Housing subsidy projects generally fail to achieve to goals of BNG owing to the poor location of new housing and distance from social networks and job opportunities (Williams, 2016). The NDP-2030 underscores the requirement for a national dialogue on the future financing of housing in South Africa and on the respective roles of different stakeholders, including the government, private sector, and individual households, in providing housing and building integrated and sustainable human settlements (RSA, 2020).

2.3 Housing Market and Affordability

In South Africa, access to mortgage finance is primarily limited to the bracket of high-income earners, and consumer indebtedness remains a serious concern for policymakers (CAHF, 2018). According to CAHF (2018), the cheapest newly built house cost was estimated at R352 500 in 2018. This house would cost R6,130/month at 10.5% interest over 20 years with a 20% deposit. Following one year, in 2019, According to CAHF (2019), a standard 46m^2 house costs R400 000, with R258 980 in building costs (64% of the total) and R141 020 in the land, infrastructure, project loan, and marketing costs. A household earning R10 000 a month gross income could only afford an R285 917 house assuming R3 000 a month mortgage payment (30% of salary), a 20-year bond term, and 11.25 per cent interest (1 per cent over prime). Thus, many households cannot afford the cheapest new housing. In 2020, The cost of the cheapest newly-built two-bedroom house on a 40m^2 plot was estimated at R539 830.23. At prime (7%) and no deposit, this house's monthly repayments would be R4 185, affordable for an R16 740-a-month household (CAHF,2020). Some of the main factors contributing to that affordability challenges are: 'low household incomes; poor credit records limiting access to finance; rising building costs; and scarcity of affordable, well-located land for human settlements development' (CAHF, 2018, p.241).

In addressing the housing backlog and housing affordability, the focus of the South African government was on the supply side by providing low-income households with subsidised housing, including social rental housing and a finance-linked subsidy, which targeted the gap market. In 2019, it was estimated that although some 4 million housing opportunities have been provided since the first democratic elections, a substantial backlog persists, estimated at between 2.3 million and 3.7 million units. Moreover, the state's annual delivery is insufficient to meet demand (CAHF, 2019).

As the focus of this research is mainly centred on households residing in inner-city areas within the 'gap market', it is essential to consider the conditions that can assist in clarifying the financial capabilities in terms of affordability, including segmentation of households and disaggregation of the housing stock, in order to address the matter in an appropriate and specific manner.

2.4 Financial Capabilities and Affordability

2.4.1 Segmentation and Disaggregation

According to Carn (1988, as cited in McGaffin, 2018), disaggregation can be defined as the process by which the total supply of housing stock is divided into different submarkets according to specific characteristics or features within the housing units that allow them to be substituted for each other on the supply side. For example, the housing units can be disaggregated based on their type, size, location, and value (McGaffin, 2018). Segmentation is the process of dividing the total household population into submarkets in which households have specific characteristics that produce similar preferences and demand levels for certain products on the demand side. For example, the population can be segmented based on of their age, income, gender, race, etc. (McGaffin, 2018).

According McGaffin and Kirova (2016), the gap between the current housing supply and the effective housing demand can be calculated as follows: First, the number of households in each income range is determined. An income-to-mortgage-repayment ratio is then used to determine how much housing can be afforded by each income bracket. Finally, to calculate the excess or surplus, this is compared with the current housing supply by value category, Figure 2.1 illustrates this methodology (McClure,2005, as cited in McGaffin and Kirova ,2016).

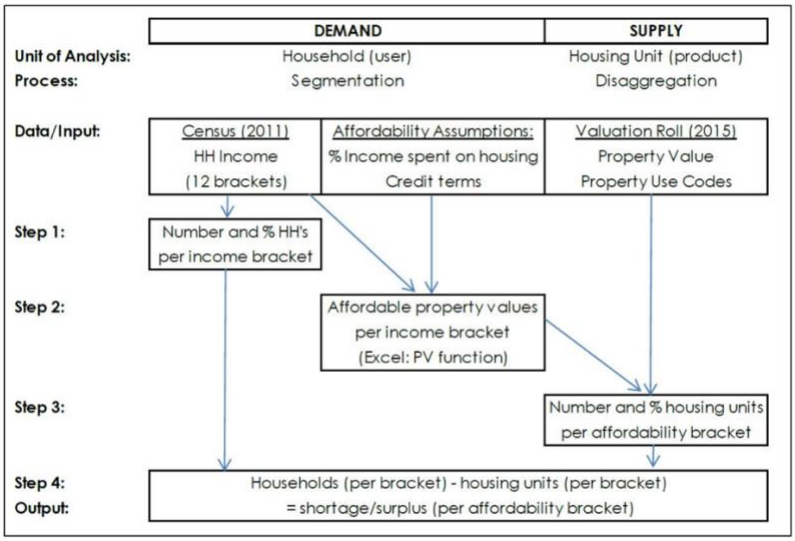


Figure 2.1 Gap Analysis Approach

Source: McGaffin and Kirova (2016), adopted from Hogarth (2015)

2.4.2 Characteristics of South African Housing Market

Table 2.1 has been adapted by CAHF from the report published in 2013 by the Affordable Land and Housing Data Centre (Al+hdc). It furnishes information on the housing market in South Africa. The characteristics of the housing market can be defined income bracket, loan affordability, supply quantity and resale ability (Al+hdc, 2013).

Subsidy Market	**Lower Gap Market**	**Upper Gap Market**	**Normal Market**
< R 3,500	**< R 3,500–9,000**	**R 9,000– 15,000**	**> R 15,000**
•Loan affordability (9%): < R 116,702	• Loan affordability (9%): R 116,702–233,404	• Loan affordability (9%): R 233,404–483,481	• Loan affordability (9%): > R 483,481
• Limited supply (Although substantial)	• Rental affordability: R 875–1750 •No new supply • Ineffective attention	• Limited supply • New attention from new FLISP (insufficient)	• More than sufficient supply

	from FLISP (Finance Linked Individual Subsidy Programme		
• Limited resale	• Limited resale	• Limited resale	• Substantial resale
60% of the population	28% of the population		12% of the population

Table 2.1: Characteristics of the Housing Market in South Africa
Source: CAHF (2013)

According to (Al+hdc, 2013), The affordable market serves approximately 88% of the South African population (60% of the population in the subsidy market + 28% of the population in lower and upper), and it includes areas where the average property value is less than R 500,000, as well as the subsidy market. The normal, or high-value, market accounts for nearly 12% of the population and includes areas where the average property value is more significant than R 500,000; it is also the focus of most press coverage.

According to (Al+hdc, 2013), the gap market (28 % as shown in table 2.2 above) is a concern because, on the one hand (the credit side), mortgage lenders are wary because : (1) new markets have no track records-increasing their sense of risk ;(2)gap market households have different credit, and financial management patterns; (3) basel III requirements amplify their anxiety; and (4) low churn and thin markets contribute to loss given default. On the other hand (the housing supply side), developers are wary because: (1)affordable housing is crowded out by the subsidy's distortion of the market ;(2) administrative and procedural delays undermine the margin ;((3)failed housing developments dampen enthusiasm; the affordability ceiling reduces the room for success and necessitates greater market precision; and (4)lack of credit for low income earners depresses effective demand (Al+hdc, 2013).

2.5 Understanding the Challenges in South Africa's Gap Housing Market

The housing sector in South Africa does not deliver at the requisite rate and scale, nor does it serve the diversity of the market, given the varying levels of affordability and access to credit. As a result, there is no adequate housing supply in either the subsidy-eligible market or gap market to satisfy the demand, which is increasingly being expressed with anger and frustration because the needs of a significant portion of the population of South Africa is not being met (CAHF, 2015). Figures 2.2; 2.3 and 2.4 illustrate the challenges confronting the housing market and finance in South Africa, particularly the ‘gap’ housing market, according to the 2011 Income and Expenditure Survey (CAHF, 2015). It also gives details on different sub-categories of the housing market and gives a meaningful understanding of gap housing.

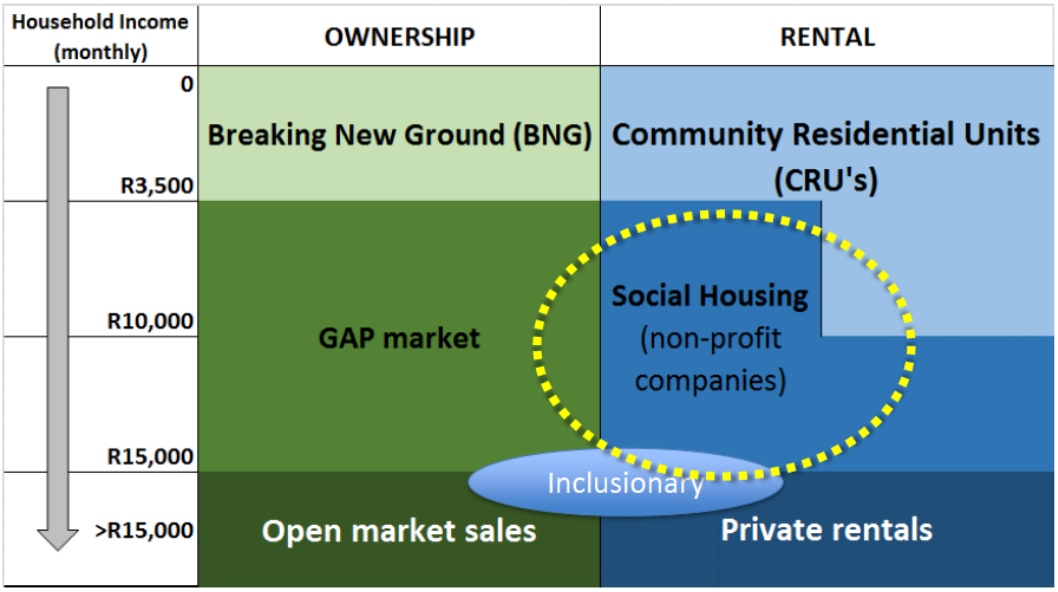


Figure 2.2: Details of Cape Town's Affordable Housing Market

Source: TDA, the City of Cape Town (2020)

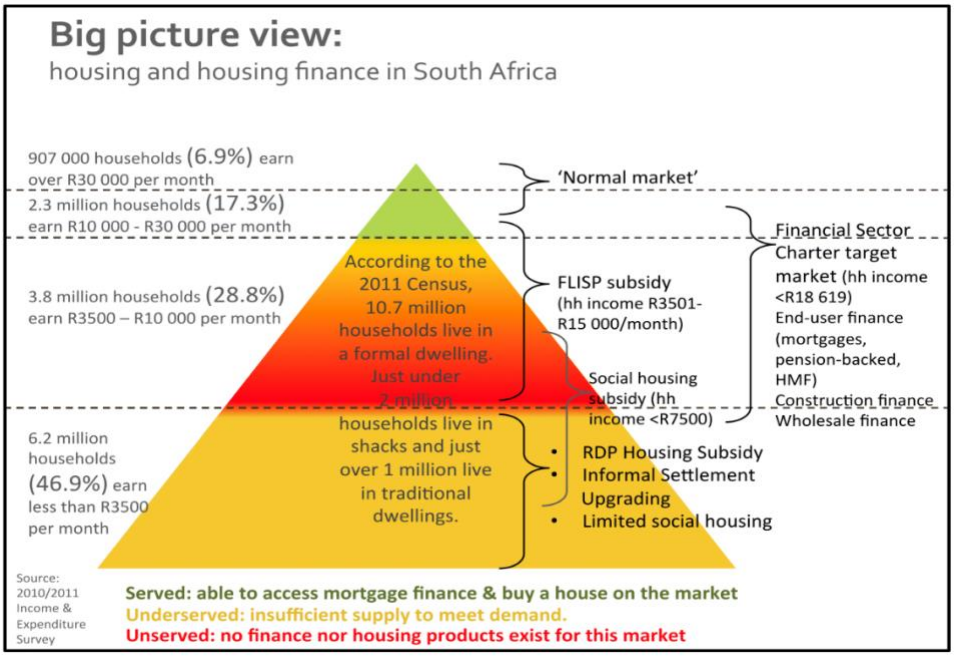


Figure 2.3: Housing Finance in South Africa.

Source: CAHF (2015)

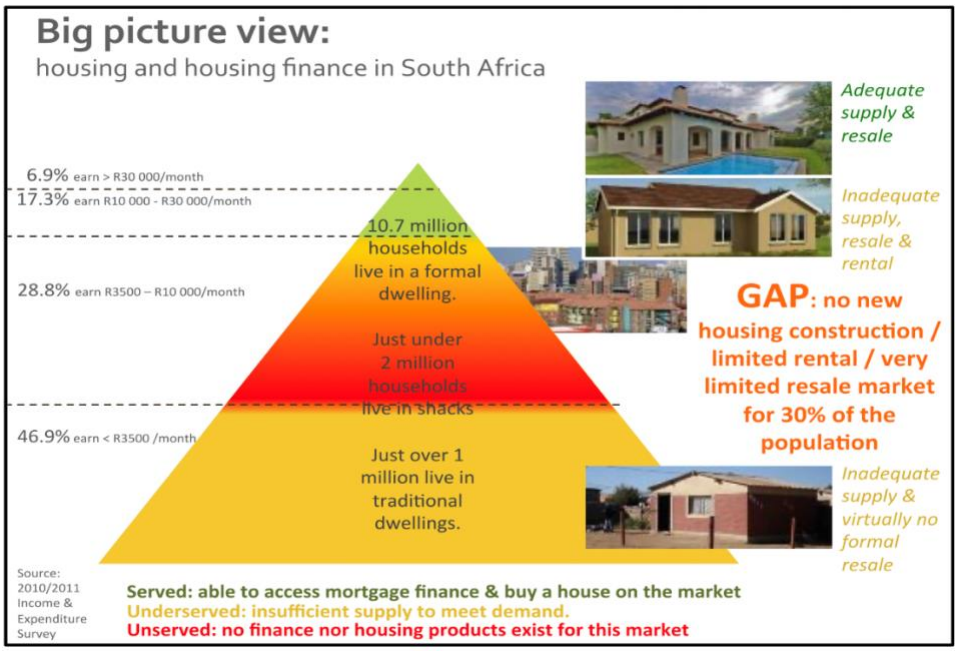


Figure 2.4: Housing Finance in South Africa.

Source: CAHF (2015)

According to (CAHF,2015), the issues contributing to the above scenario (housing unaffordability) originate from the demand and supply sides. These issues will be discussed in the following sections.

2.5.1 Housing Market Issues on the Demand Side

The affordability of housing depends on three factors: household income, property price, and access to credit (RSA,2018). As it is the focus of this research, the main issue found in the South African housing market on the demand side is 'affordability', which is mainly a function of a household's income and the existing credit obligations of the household (CAHF, 2015). According to the report by CAHF (2015), the high number of mortgages have been provided for over twenty years in South Africa, and usually, if the household has no other debt, the monthly instalment is estimated at around 25% of the household income. A bank can give them an interest rate of prime plus or prime minus a certain percentage, depending on the personal credit record of the borrower and other factors. Banks usually charge prime plus about 2% in the affordable market (CAHF, 2015). Although this differs from one client to the next, it is the benchmark used to understand the affordability of loans (CAHF, 2015). For example, CAHF (2015) used ABSA bank data on loan affordability to illustrate housing affordability in South Africa.

In 2015, on conventional mortgages, households earning R 18,000 per month pay a base rate of 9.25%, which is the prime interest rate. Please refer to the table attached in annexure B for information on housing affordability at R500 increments in income. It sets out the housing affordability for households earning R 18 000 and below. The table shows explicitly the loan amount that the borrower could qualify for based on

household monthly income range Annual interest rate, loan term (years), Monthly instalment/ HH Income. It also reveals the corresponding FLISP and Housing affordability = Purchase Price for each household at an increment of R 500. In 2015, over 58% of properties still had an outstanding loan balance, the highest among the eight metropolitan municipalities. Transaction prices (sales prices) have been somewhat higher than property values, signalling that demand is driving prices above actual values and providing an opportunity for more supply. The fact that the rate of new construction has not kept pace with population increase is a significant obstacle since it indicates an Increasing rather than diminishing housing backlog. (RSA, 2018)

FLISP provides improved housing affordability for households earning a monthly income valued between R 3,501 and R 15,000 per month, significantly for those at the bottom of the income distribution and moderately for those at the top. Households earning a monthly income of between R 3,501 and R 15,000 should be able to afford housing costs between R 170,000 and R 377,000 by assuming that a household does not have any other outstanding balance on their debt (CAHF, 2015). However, in 2015, the cheapest newly built house available on the market in South Africa was around R 370,000, affordable only to the top of the FLISP target market even with the subsidy.

Developers estimate that of every 10 buyers they send to lenders to apply for mortgage financing, two are rejected for adverse credit track records, and five are declined because of affordability constraints, only three out of every 10 applications submitted are accepted and approved (CAHF, 2015). Those households earning between R 3,501 and R 15,000 are part of the 'gap' market. However, from the perspective of housing affordability in general, the gap market is likely broader (CAHF, 2015). Household affordability is not only determined by income and finance, but it also depends on the credit situation of the borrower. According to CAHF (2015), As per the report from the National Credit Regulator, less than half of all credit-active customers were still on their loans or debt, paying their monthly obligations on time. Just under half of their credit agreements are in arrears for more than 90 days, and almost half of them are so far behind in their payments that they have been issued unfavourable listings or are facing legal procedures such as judgements and orders administration. Such borrowers will not be eligible for mortgage financing. Indeed, reckless lending conditions in the National Credit Act 'make it illegal for credit to be extended to such over-indebted borrowers' (CAHF, 2015, p.3).

In summary, from the financial perspective, challenges to affordability on the demand side would require thorough attention to the credit markets of South Africa and the reality of over-indebtedness. The credit markets in South Africa and the reality of over-indebtedness are significant concerns when looking at affordability from a financial perspective.

2.5.2 Housing Market Issues on the Supply Side

On the supply side, the key limitation is within the municipalities' control of the pace, scale, and cost of delivery; regulatory approval procedures need focused attention, and a significant effort is required to

overcome the delays encountered. In addition, bulk services and internal reticulation issues also require attention in terms of cost, availability, and efficiency (CAHF, 2015). These issues are addressed by National Treasury effort in its Cities Supportive Program. However, none of these challenges is getting addressed quickly and consistently. As a result, in South Africa, the housing backlogs, the size of the gap market, and inequality will progressively continue to grow (CAHF, 2015).

According to CAHF (2015), a strong recommendation has been made, motivating the public and private sectors to emphasise the households in the 'gap' market. 'South Africa's social and private rental sectors must be supported to address quality rental housing in this market segment, whether in large-scale rental developments or through rental housing offered by households themselves in the form of quality backyard accommodation'. (CAHF, 2015, p.7). Approximately 30% of South African workers, including key public sector workers such as teachers, nurses, police officers, and government officials, as well as other key sector workers such as those in the mining and manufacturing industries, are estimated to be in gap markets (CAHF, 2015). The next section discusses the concept of public and private partnerships as an approach to improving the delivery of affordable housing.

2.6 Defining Public–Private Partnerships

The definitions of 'public–private partnerships' vary but tend to include governmental and private institutions as well as non-governmental and international organisations. The World Bank (2020 p.20) utilize a broad definition of PPPs for both new and existing infrastructure and services, describing public-private partnerships as described in the introduction. Through the agreement, the public and private sectors pool their skills, expertise, and assets to deliver a service or facility to the general public, with the private party bearing significant risk and management responsibility and remuneration is linked to performance. Along with resource sharing, each partner shares in the risks and rewards associated with the provision of the service and/or facility (AGCA, 2020, p.1)

The PPP approach has been widely used in private investment since the provision of public infrastructure at the end of the nineties and can be traced back to the 18th century in the countries of Europe (Tang et al., 2009). Generally, the benefit of a PPP is that their capabilities are combined, and the onus of delivery does not fall on just one sector. Therefore, services that were not otherwise available became possible. These advantages extend to improved schedule, quality, and sharing of risk offered. For example, many studies have revealed that PPPs is a suitable model to improve housing quality; information, financial, and political support may be combined to best support housing development incentives.

The public sector contribution may take the form of cash or equivalents, such as land, development rights, revenues (rents/tariffs) generated by land, infrastructure, building assets, tax relief, and a portion of the equity developed over a certain period. The private party's compensation is heavily performance-based. This approach permits the public and private sectors to form suitably organised partnerships around a

particular housing demand and context. It also allows the public sector to secure the supply of various housing tenures (e.g., for rent or sale) and asset classes (e.g., residential or retail space), enabling private sector participation. In addition, the definition does not stipulate that the parties must be bound by long-term contracts, as is customary with infrastructure PPPs (World bank, 2020 p.20).

Housing PPPs Constraints and Enablers

According to Bartra (2020), It is critical to evaluate the constraints or possibilities for private partners to participate in housing PPPs. This assists in identifying the critical factors impeding private sector participation in housing PPPs and the critical enablers promoting their participation (Table 2.2).

Constraints	Enablers
Lack of bureaucratic understanding	Land provision for PPP by the government
Lack of effective policy	Financial advisors' experience
Inequitable risk sharing, public accountability	Government controls land for development
Lack of regulation of long-term contract	Institutional strength, improved transparency, and the rule of law
Unreasonably calibrated bargaining and different understanding of risk	A single multi-disciplinary not-for-profit entity with experience in implementation on a PPP basis, that performs a buffer function between public and private partners
Absence of clarity, transparency, profitability	
Inefficient legislative and government approvals, stakeholders marginalisation	
Lack of certainty of the revenue stream, and proper risk allocation	Approval for mortgage financing
Lack of risk allocation to developers	Government subsidies or guarantees, clear government commitment
Lack of local authorities dealing with PPPs	Presence of project experts
	Model contracts, consultants with competence

Table 2.2: Housing PPPs Constraints and Enablers

Source: Batra (2020).

2.7 Public–Private Partnership in the context of South Africa

South African law defines a PPP as: 'a contract between a public sector institution and a private party, in which the private party assumes a substantial financial, technical and operational risk in the design, financing, building and operation of a project' (RSA, 2004). Partnerships allow the public and private sectors to achieve their goals for the benefit of everyone. This ought to result in greater certainty, increased efficiency, lower costs, and lower risk perception, thereby resulting in lower delivery costs. This is possible through the using private sector finance and expertise aimed at improving service delivery (RSA, 2004). In both South African provincial and municipal spheres, a PPP, by its nature, entails:

- ◊ Targeted public spending, primarily on outputs that meet agreed-upon standards.
- ◊ Capitalising/leveraging on private-sector financing and efficiencies.
- ◊ Assigning risks to the party best suited to manage them.

South Africa has established a solid regulatory framework for national and provincial government institutions to enter into PPP agreements. Treasury Regulation 16, issued in response to the Public Finance Management Act (PFMA) of 1999 (RSA, 1999), is the central legislation governing PPPs for national and provincial governments. Municipal PPPs are governed by the Municipal Systems Act of 2000 and the Municipal Finance Management Act of 2003. South African Municipalities receive their own PPP Manual from the National Treasury.

2.7.1 South African National Treasury's PPP Manual

The National Treasury's PPP Manual and Standardised PPP Provisions are founded on the PFMA and Treasury Regulation 16 and were developed for national and provincial departments, constitutional institutions, and public entities. The PPP practice notes are instructions in accordance with Section 76 of the PFMA and are intended to facilitate the application of the PFMA and its regulations. Regulation 16 of the National Treasury provides precise and detailed instructions for PPPs. There are two types of PPPs: those in which the private party performs an institutional function and those in which the private party acquires the use of state property for its commercial purposes (RSA, 2004).

Treasury Regulation 16 is not prescriptive regarding a PPP's financing structure. It is expected that these will vary from project to project and sector to sector and that they will be closely related to the funding sources available for each deal. PPPs typically involve the private party raising both debt and equity to fund the project. The typical PPP structure suggested by Treasury Regulation 16 is shown in Figure 2.5. In essence, Treasury Regulation 16 states that the financing structure and funding sources for a PPP project will be determined by affordability limits, value-for-money considerations, and the project's risk profile (RSA, 2004).

2.7.2 Public–Private Partnership's Project Cycle

The PPP project cycle is the road map for the PPP process. It allows for the three regulatory tests of affordability, value for money, and risk transfer to be applied at every stage of planning, procuring, and managing a PPP agreement. Six distinct phases are defined in Regulation 16 for the project cycle. It requires the institution to apply these tests throughout the process and that specific treasury approvals be granted at phases II and III of the project cycle. See the figure: PPP Project cycle, National Treasury Regulation 16 (2004), on annexure C, which is showing the full PPP project cycle chart. The project cycle encompasses the two significant periods of a PPP: the preparation period and the project term. The PPP preparation period encompasses phases I through III of the project cycle, namely, inception, feasibility study, and procurement, and concludes with signing the PPP agreement. The project term encompasses phases IV through VI of the project cycle, namely, development, delivery, and exit (RSA, 2004).

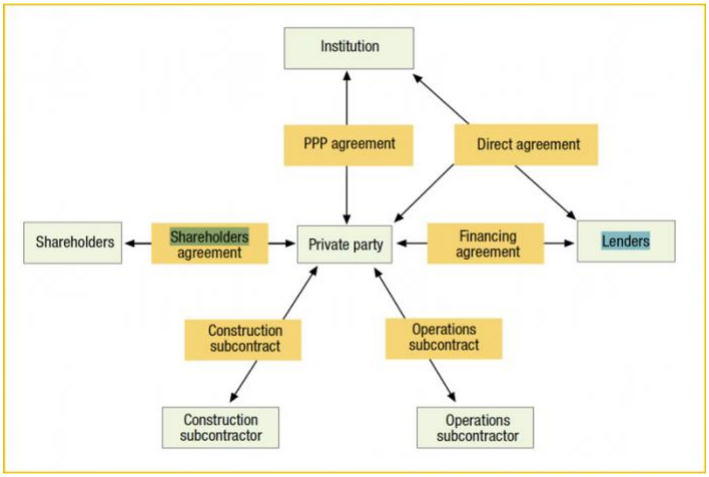


Figure 2.5: Typical PPP Structure
*Source: Treasury Regulation 16, (RSA, 2004**).***

The PPP Manual of the National Treasury is primarily concerned with the project preparation period, during which treasury approvals I, IIA, IIB, and III are granted. The PPP project cycle indicates when these approvals are required, and which modules of the PPP Manual apply to the various phases. The PPP Manual also guides managing a PPP agreement, auditing PPPs, and accounting for PPPs (RSA, 2004).

2.8 Reasons for Public–Private Partnerships

According to the Asian Development Bank (ADB) (2014, p.3), the three primary reasons for the public sector to engage in PPPs, particularly in the provision of infrastructure, are:

- 'To attract private capital investment (often to either supplement public resources or release them for other public needs).
- To increase efficiency and use available resources more effectively, and
- To reform sectors through a reallocation of roles, incentives, and accountability'.

According to Cheung et al., (2009), it is noteworthy that PPPs make projects affordable, and this extends to this study in terms of gap housing delivery in inner-city areas. Under a PPP, the private sector finances the project's construction and is reimbursed over time through a service charge, revenue generated by the project, or a combination of the two. (Cheung et al., 2009) Thus, in circumstances when the public authority does not want to, or cannot, increase its direct level of borrowing, PPPs make projects affordable. While PPPs have grown in popularity, the benefits of this model have expanded beyond simply relieving the financial load on government (Cheung et al., 2009). According to Walker et al. (1995, as cited in Cheung et al., 2009), there are three primary reasons to employ the PPP approach:

In general, the private sector is more mobile than the governmental sector. For example, the former is not only capable of reducing project costs in terms of planning, design, building, and operation, but also of avoiding bureaucracy and easing administrative burdens. The private sector can improve service to the public sector and form a strong PPP to provide a balanced risk–reward structure. Although the government lacks the capacity to raise substantial sums of funds for large-scale infrastructure projects, private participation can help alleviate the government's financial burden.

2.9 Contracts and Risk transfer in Public Private Partnership Schemes

According to UNEC (2008), there are a variety of PPP models that transfer duties and risks to public and private participants in various ways. Below is the list of the terms commonly used to describe typical partnership agreements

Operations and Maintenance	Design–Build–Finance–Operate–Maintain
Operation and Maintenance Contract	Design–Build–Finance–Maintain–Operate
Build–Finance	Build–Operate–Transfer
Design–Build–Finance–Maintain	Build–Own–Operate
Design–Build–Operate	Buy–Build–Operate
Design–Build–Operate–Maintain	Developer Finance

TABLE 2.2: Terms commonly used to describe typical partnership agreements
Source: UNEC (2008)

According to UNEC (2008), the following are the most prevalent terms commonly used to describe typical partnership agreements:

A Private Operator Under Contract (O&M): A private operator operates a publicly owned asset under contract for a certain period of time. The public entity retains ownership of the asset. Many do not consider O&M's to lie within the spectrum of PPP's and consider such contracts as service contracts.

Design-Build-Finance-Maintain-Operate (DBFMO): The private sector designs, build, finances, and maintains and operates an asset. It also provides complex and soft facility management services and operations under a long-term agreement.

Build–Own–Operate (BOO): In perpetuity, the private sector finances, constructs, owns, and operates a facility or service. The public constraints are stated in the original agreement and ongoing regulatory authority.

Buy–Build–Operate (BBO): The transfer of a public asset to a private or quasi-public entity, usually under contract, is based on the fact that these assets are to be upgraded and operated for a specified period. Public control is exercised through the contract at the time of transfer. A private entity first receives a franchise to finance, design, build, and operate a facility (and charge user fees) for a specified period, then transfers ownership to the public sector.

Build–Operate–Transfer (BOT): The private sector designs, finances, and constructs a new facility under a long-term concession contract and operates the facility during the concession term, after which ownership is transferred back to the public sector if not already transferred upon completion of the facility. Such a form covers BOOT (Build-Own-Operate and Transfer) and BLOT(Build-Lease-Operate-Transfer), with the sole difference being the facility's owner (IMF, 2004).
A private entity receives a franchise to finance, design, build, and operate a leased facility (and charge user fees) for the lease period in exchange for payment of rent.
The private sector designs, finances, and builds a new facility under a long-term lease and operates it for the duration of the lease. The private partner transfers the new facility to the public sector at the end of the lease term.

Finance-Only: A private entity, typically a financial services company, funds a project directly or uses various mechanisms such as a long-term lease or bond issue.

Design–Build (DB): The private sector designs and builds infrastructure to meet public sector performance specifications, often at a fixed price, turnkey basis, and therefore, the risk of cost overruns is transferred to the private sector. Many do not consider DB to lie within the spectrum of PPPs and consider such contracts as public works contracts.

A Private Operator License: A private operator receives a licence or rights to operate a public service, usually for a specified term. It is often used in IT projects.

Other types of PPPs that can be considered include Developer Finance; EUL: Enhanced Use Leasing; Lease Develop Operate or Build Develop Operate; Lease/Purchase; Sale/Leaseback; Tax Exempt Lease and Turnkey.

Public service delivery options range from direct supply by a ministry or government agency to complete privatization, in which the government passes all duties, risks, and rewards for service delivery to the private sector. Within this range, public-private partnerships may be classified according to the level of public and private sector participation and risk allocation. Following (Figure 2.8) is a condensed spectrum of the preceding public-private partnership models, which has been used in Canada.

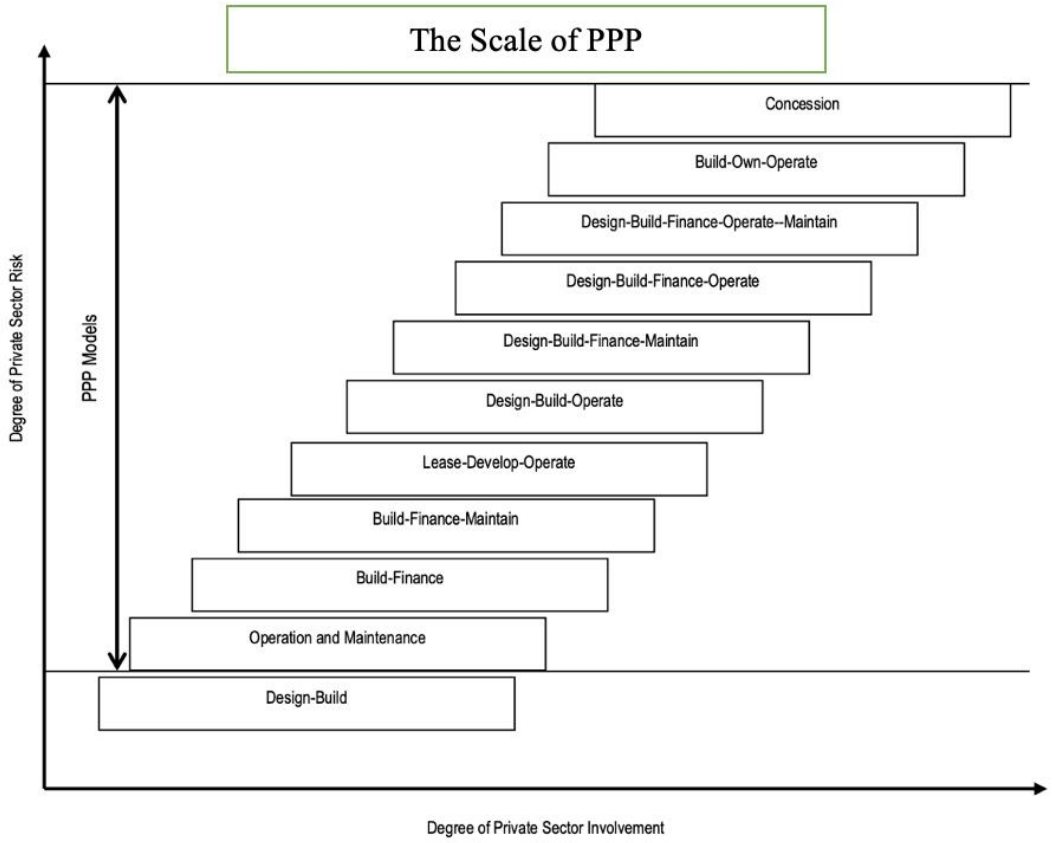


Figure 2.6: The Scale of PPP

Source: UNEC (2008). Adapted by UNEC from The Canadian Council for Public–Private Partnerships

According to UNEC (2008), contrary to the popular belief, PPPs are neither privatisation nor public procurement. A PPP is not the same as privatisation. Under PPPs, the public sector retains responsibility for delivering public services, whereas under privatisation, this responsibility is transferred to the private sector while the public sector might retain some regulatory price control. PPPs do not involve a transfer of ownership, and the public sector remains accountable for its actions (UNEC, 2008). The public partner's goals and objectives must clearly define the project's scope, the public leader of the program, the type of partnership structure, the responsibilities of all stakeholders involved, and the anticipated public return for the project (Vrooman (2012). The public sector identifies the appropriate site to be developed and solicits the interest and proposal for that development and then chooses the developer. The latter should be willing to participate according to their expertise in similar projects and reflect a capability to execute them. In the partnership, the public sector serves as the overall process manager and authorises the project plan but is not directly responsible for the management and organisation of the daily work that is transferred to the private sector. However, according to Vrooman (2012), most scholars agree that it should be the duty of the public sector to set out expectations and methods and assign the risks and responsibilities to the partner

best suited and qualified to manage and handle each task according to the latter's capabilities, experience, knowledge, and expertise.

2.10 Stages in the Development of Public–Private Partnership

As shown in Table 2.4, there are several distinct phases that countries tend to go through before their PPP programme is fully operational. First, most countries are in the early stages of project development, with a relatively small number of projects. Only in the third phase, where relatively few countries are, the programme becomes meaningful. This is the stage at which a country will have to develop the necessary institutions, such as the PPP unit or capital markets, and know-how and expertise, and can thus turn its attention to more sophisticated projects and financial arrangements (UNEC, 2008). Table 2.4 describes the steps usually taken by a partnership to identify and optimise the PPP model and contract scope and funding based on the partnership's value for money and life-cycle cost assessment.

Stage One	Stage Two	Stage Three
• Define policy framework • Test legal viability • Identify project pipeline • Develop foundation concepts (PSCs etc) • Apply lessons from earliest deals to other sectors • Start to build marketplace	• Introduce legislative reform • Publish policy and practice guidelines • Establish dedicated PPP units • Refine PPP delivery models • Continue to foster marketplace • Expand project pipeline and extend to new sectors • Leverage new sources of funds	• Fully defined, comprehensive "system" established • Legal impediments removed • PPP models refined and reproduced • Sophisticated risk allocation • Committed deal flow • Long-term political consensus • Use of full-range of funding sources • Thriving infrastructure investment market involving pension funds and private equity funds • Well-trained civil service utilises PPP experiences

Table 2.3: Stages of PPP development

Source: Adapted from UNEC Europe Guidebook on Promoting Good Governance in PPP, 2008, p.7

2.11 Public–Private Partnerships in Practice.

According to the ADB (2008) in its Public–Private Handbook, PPPs present a framework that, while engaging the private sector, acknowledges and sets out the role of government by ensuring that social obligations are met, and successful sector reforms and public investments are achieved. A strong PPP

allocates tasks, obligations, and risks optimally between public and private partners. A PPP involves government entities such as ministries, departments, municipalities, or state-owned enterprises. Private partners might be domestic or international and may include enterprises or investors with significant technical or financial capabilities. In addition, PPPs are increasingly involving non-governmental organisations and community-based organisations that represent stakeholders directly impacted by the project.

Effective PPPs recognise that each sector has distinct advantages over the other in accomplishing specific duties. The government's contribution to a PPP may take the form of capital investment (financed by tax revenue), asset transfer, or other obligations or 'in-kind' contributions that assist the partnership. Additionally, the government provides social responsibility, environmental awareness, local knowledge, and the ability to mobilise political support (ADB, 2008).The private sector's role in the partnership is to leverage its expertise in commerce, management, operations, and innovation in order to run the operations efficiently. The private partner may offer investment funds depending on the contract's agreement. The partnership structure should be designed to allocate risks to the partners who are best able to manage those risks and thus minimise costs while improving performance (ADB, 2008).

2.12 Public–Private Partnerships in the Context of Housing Development

As there is no particular definition for a PPP with regard to providing affordable housing, the World Bank has proposed the following definition for achieving this outcome: A partnership between the public and private sectors, established through a contractual relationship which seeks to access private sector finance, design, construction, commercialization, maintenance, or operational management for the delivery of affordable12 housing and, in some cases, ancillary services (World bank, 2020 p.20).
In the housing sector, PPPs are becoming increasingly necessary for public service reform as well as the delivery of public infrastructure and services. The concept of PPPs is related to different phases, including designing, financing, implementing, and operating local government facilities and services (Iwegbuna,2019). One of the main reasons the government has to engage with the private sector is the limited resources available to the local government, increasing the necessity to collaborate with the private sector to utilise the private sector's finance, expertise, and transfer risks.

Only by bringing the private sector and local government together and creating more PPPs aimed at delivering affordable housing can it boost housing delivery. However, for the PPP projects in providing affordable housing to be successful depending, both the local government and the private sector have different incentives (Iwegbuna,2019). Figure 2.7 shows the three-way relationship in the provision of affordable housing, and it summarises the roles assigned to every sector/stakeholder in the partnership. In general, the government has the money that needs to be used by the private sector, which requires capital. Furthermore, the government is also responsible for establishing, regulating, and writing the rules which need to be implemented by the private sector.

As the government's main motive is to seek affordable housing for the people, much effort is needed to allocate suitable pieces of land near economic opportunities that need to be developed by the private sector and run rental stock. The communities are the beneficiaries of the partnership, and they are concerned about the outcomes of PPPs activities that can provide the services they need. The programme's beneficiaries (residents) are also responsible for protecting the housing after the completion of the housing project (Iwegbuna,2019).

Figure 2.7: The Three-Way Relationship: Affordable Housing
Source: (Creek City, 2019)

As shown in Figure 2.7, in the three-way relationship, the private sector needs to understand the government and tolerate local government processes, especially in funding and project implementation. The state should recognise that the private sector is in business to make a profit; as a result, further incentives should be provided to encourage the private sector to participate in PPPs and invest in affordable housing developments (Iwegbuna,2019). Since the beneficiaries cannot have sufficient funds to buy a home owing to their low level of income, the public sector must include the private sector in the delivery of public services owing to its limited financial resources. The public and private sectors must work together to address the challenges of PPPs, especially in locating suitable land near economic opportunities, which is a significant problem that local governments face as well (Iwegbuna,2019).

PPPs enable the adjudication and delivery of land development applications from provincial and municipal government statutory authorities to be more expeditious and efficient. The communities are the beneficiaries of the partnership and are concerned about the outcomes of PPP activities that can provide the services they need. The residents, who are the programme's beneficiaries, are also responsible for the protection of the housing after the completion of the housing project (Iwegbuna,2019). Fiszbein and Lowden (1999) tried to combine different definitions of PPPs and ascertained that it is the pooling of the resources (financial, human, technical, and intangibles, such as information and political support) from public and private sources that make it possible to achieve a common goal. As suggested by (Tang et al., 2009), the discussion between the public and private sectors should focus on the following key points: risk-sharing, financing terms, the contractual agreement between the parties, development of partnership models, and strategies for selecting the best type of PPP.

Under a PPP, the private sector finances the project's construction and is repaid by a service charge from the authorities over time, in terms of revenue generated from the project or a combination of the two. Thus, in circumstances when the public authority does not want to, or cannot, increase its direct level of

borrowing, PPPs make projects affordable. Governments across the world favour the approach of PPP to provide affordable housing and other facilities. This approach brings in private investment for public services and facilities (Grimsey and Lewis, 2004). These services and facilities are often essential for the public and involve considerable capital investment. However, if the government solely financed all these services and facilities, it would put tremendous pressure on the government's financial status.

Countries worldwide must examine how the PPP model can be applied to help promote sustainable housing and urban development (UN-Habitat, 2012). The changing role of the public sector from provider to facilitator in the shelter-provision process and the promotion of the enabling concept have, however, in past years, initiated the exploration and utilisation of new approaches in this field whereby financial, institutional, human, and physical resources are mobilised in an integrated manner (UN-HABITAT, 2006).

Partnership arrangements can effectively improve those qualifying for affordable and gap housing options in the appropriate circumstances. In the future, the potential for improving the scale and reach of partnership arrangements would be remarkable, and the challenge for agencies responsible for accommodation issues at all levels is to ensure the creation of an environment within which such arrangements can flourish. However, the subject of partnerships in the affordable housing sector rarely appears on the research agendas of national and international organisations active in this field (UN-Habitat, 2006).

While PPP in the housing finance sector has proved that feasible systems may be developed on a small scale, these systems are frequently unaffordable. Therefore, various partnerships have been tried, including extending formal financial services to the informal sector, integrating groups of lower-income borrowers into formal financial systems, and using public funds and institutions to increase the accessibility of housing finance to all sectors (UN-Habitat, 2006).

2.13 Public–Private Partnership in Developed and Developing Countries

The concept of PPP has evolved as the most prominent urban housing policy model because it provides a broad framework for both government and private institutions to work and collaborate in an integrated manner (Grimsey and Lewis, 2004). Kateja (2012) reported that the cost of maintaining and building new infrastructures in developing countries is approximately 7% of their GDP, but their spending capacity is also approximately 3%, indicating a clear gap in infrastructure and service delivery. The inadequate status of infrastructure development in developing countries exceeds the government's capabilities, necessitating partnership to take place (Nubor, 2020).

The PPP model has evolved and is likely to be promoted as a preferred mode of infrastructure funding. Brazil, Russia, India, and China, colloquially known as the BRIC countries, have embarked on a higher growth trajectory, establishing themselves as emerging economies in the global scenario (Kateja, 2012). Partnerships are not a new phenomenon; they have been popular in the United States of America (US) and

the United Kingdom (UK) since the 1970s. However, under the Private Finance Initiative (PFI), the PPP strategy has become gained worldwide prominence as an effective method of delivering value for money in public infrastructure and services (Sobuza, 2010; Nubor, 2020).

In the industrialised world, PPPs have become a popular method of public procurement that is essential to government policy. Various PPP-oriented developments in industrialised countries, notably the UK and Australia, have proved the benefit and viability of such schemes, as well as how the concept has revolutionised public service delivery. The experiences of two pioneers in PPP (the UK and the USA) could be used to explore critical attributes and success factors of PPP in affordable housing delivery.

2.13.1 The United Kingdom Experience

As per Deloitte's (2007) report, cited in (Nubor, 2020), the UK is a pioneer in using PPPs to deliver infrastructure and other public services. In the UK, affordable housing has relied on the private sector to supplement public finance, with the introduction of the PFI to promote partnership between the private and public sectors (Moskalyk, 2008, as cited in Nubor, 2020). Given the severe dearth of public funding for social housing repairs, maintenance, and new affordable housing stock, The UK government decided to develop pathfinder projects to promote PFI (PPP) in affordable housing delivery and social inclusion. In 1998, eight local authorities were chosen as PFI/PPP housing pathfinders. These authorities were selected to investigate the possibilities of PPPs in social housing.

The pathfinder PFI schemes encompass a variety of housing projects, including traditionally built estates, modern high-rise towers, and incorporated refurbishment projects. Local housing authorities issue a long-term contract to a private consortium comprising banks, housing contractors, and a housing association under the PFI (Nubor, 2020). Among the primary goals of PFI in housing, delivery is to enhance housing conditions significantly and maximise the value of public money by assuring a risk transfer from the public to the private sector, which may be efficient at managing short- and long-term risks (Nubor, 2020).

Financing Strategy

The government was responsible for supplying resources for supporting the capital component of the project in the form of PFI credits, which offer additional subsidies to housing revenue accounts held by local governments. The local government supported the revenue component of the project through management and maintenance (Nubor, 2020).

Lessons

The UK authorities have used the pathfinder project to figure out when and where to use PFI for affordable (social) housing and how to set it best up and manage it. According to the UK experience gained from the pathfinder projects, PFI should be the preferred option when alternative approaches to securing investment are either economically unviable or undesirable to tenants (Nubor, 2020). PFI projects were expected to

provide added value over a longer contract period because they are viewed as an investment mechanism that locks in investment to maintain a specified output standard for housing stock. For boosting the investors' confidence, the central government's commitment in terms of policy and regulation was required (Nubor, 2020).

2.13.2 The United States of America Experience

According to Moskalyk (2008, as cited in Nubor, 2020), PPPs are the primary source of affordable and social housing in the USA, where a variety of supportive financing mechanisms have been put in place, which has contributed to stimulating and boosting affordable housing production through the mechanism of PPP. According to a study conducted by the Canadian Mortgage Housing Company (CMCH), there is a diversity in the nature of PPP arrangements used in the USA, where the PPP approach entails widespread participation by corporations, philanthropists, foundations, financial investors, and many others. The non-profit sector has evolved to the point that this new paradigm is almost the exclusive approach to providing social housing (CMCH, 1999, as cited in Nubor, 2020).

USA's leadership has historically used a wide range of programmes and subsidy strategies to encourage partnership with the private sector in housing provision (Lee and Wallace, 1996, as cited in Nubor, 2020). The most significant source of government funding for affordable and social housing delivery in the USA is generated from the low-income housing tax credit to local non-profit authorities, which can then sell the credit to private investors for cash (P3 Advisor Inc, 2008, as cited in Nubor, 2020). Affordability is achieved by maximising debt payment costs such that the breakeven rent is relatively affordable, and the project is feasible without the need for ongoing government subsidy assistance to cut rent to an affordable level (CMCH, 1999, as cited in Nubor, 2020).

2.13.3 Public–Private Partnership Market Maturity Curve in The Global Economy

Owing to the complexity of the path to successive PPP schemes, there is no single example that can completely satisfy all success criteria. PPP has helped the growth and viability of affordable and social housing in countries with advanced economies, but there are several key strategies that may be learnt from their experience. Figure 2.9 shows the PPP market maturity curve in developed and developing countries. According to Delloite (2007, as cited in Nubor, 2020), There are three levels of PPP: entry-level, sophisticated, and high-level. PPP market development, PPP market activity, and PPP market maturity are the three stages. As a result, the data suggested that the UK and Australia have reached the maturity stage of PPP. It would be beneficial for governments in the early stages of the PPP maturity curve to learn from the pioneers who have progressed to more advanced stages, such as the UK in the case of schools, hospitals, and defence facilities, and Australia and Ireland in the case of roads, for example (Kateja, 2012).

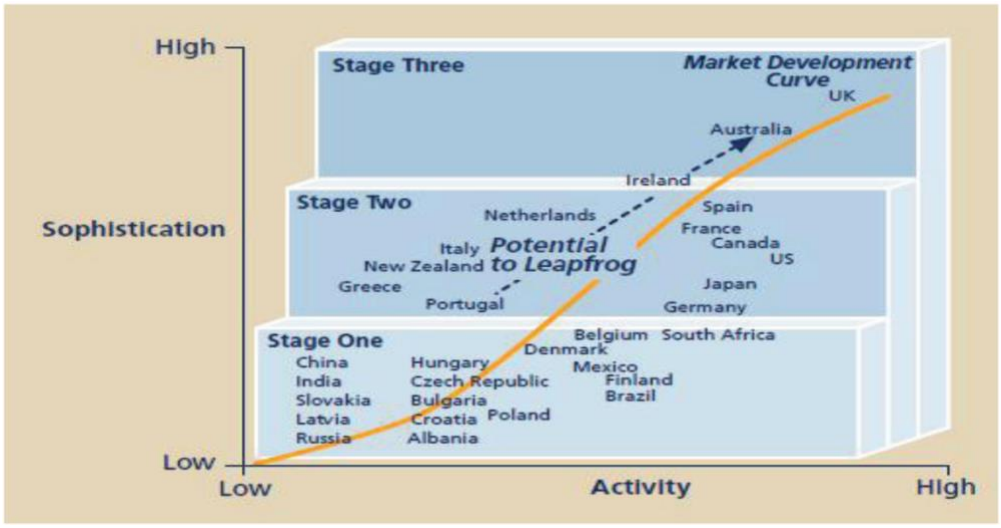


Figure 2.8: PPP Market Maturity Curve in the Global Economy

Source: Delloite (2007), adopted from the research done by Kateja (2012)

PPP units in agencies are established in countries in stage two, along with innovative hybrid delivery models. The PPP market becomes more developed during this stage, and its use is extended to include a broader range of projects and sectors. Capital markets are another new funding source for the countries in stage two (Kateja, 2012). On the basis of the three stages of the PPP market maturity curve shown above, Nubor (2020) has suggested the need for a PPP mechanism in affordable housing delivery in developing countries, which are in stage one. While most developed countries, such as the US, Canada, and a few countries in Europe, are in stage two, known as the active stage, developing nations are in stage one, referred to as the low PPP stage. As a result, the necessity for PPP adoption and implementation in developing countries has become even more apparent.

Most countries in emerging market economies (EMEs), such as Brazil, China, India, South Africa, and the Russian Federation, are in stage one of the PPP market maturity curve. In this initial stage, the countries establish a policy and legislative framework and an institutional framework to guide the implementation of projects. Countries such as Australia and the UK are in the stage three of the PPP market maturity curve. At this stage, countries refine innovative models, utilise more sophisticated risk models with a greater emphasis on the total lifecycle of the projects, and develop a market for advanced infrastructure with the participation of pension funds and private equity funds (Kateja, 2012).

2.13.4 Lessons from Experiences with PPPs

It is ideal for learning from worldwide PPP applications, such as those utilized to provide affordable housing. In this context, the researcher reviewed the literature and other preliminary surveys, including Ritika Batra's 2020 research on the use of PPP in delivering affordable housing, which is discussed below. Of 40 responders or competent professionals, 70% reported favourable PPP project experiences, while 5% had exceptional experiences (see Figure 2.10).

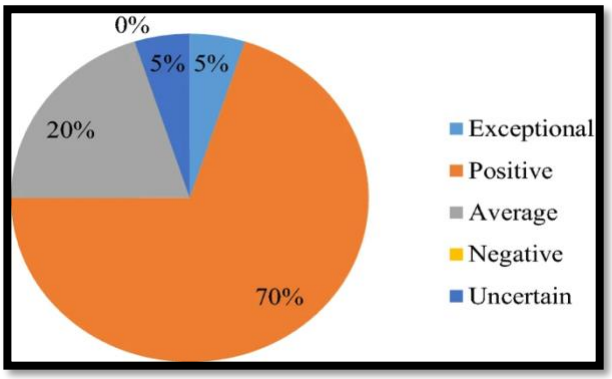
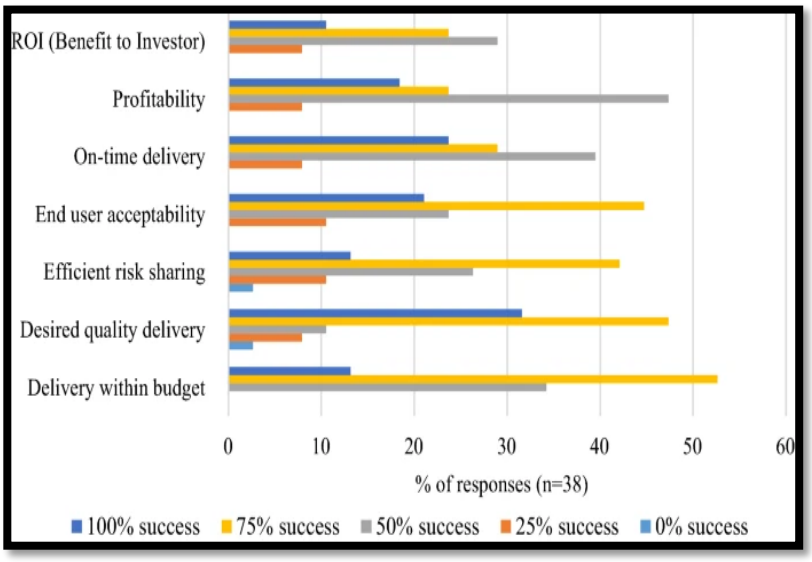


Figure 2.9: Experience with *PPPs*
Source: (Batra ,2020, p.1131)

According to the ADB (2008, as cited in Batra, 2020), in comparison to other methodologies and various criticisms of PPP for a wide range of reasons, including their vulnerability to inadequate risk allocation due to the long-term nature of contracts, the PPP model is a preferred method of implementing and delivering large-scale projects. Having a more significant percentage of positive experiences with PPPs also demonstrates that housing PPPs may be a viable option for meeting housing needs (Batra, 2020). All the respondents in this research confirmed 100% effectiveness of using PPP in providing affordable housing, besides the lack of its usability, specifically in the provision of affordable and gap housing in the City of Cape Town's inner-city areas and South Africa in general.

As per their experiences with PPP projects, the respondents were asked to rate how successful they had been in seven different aspects of PPP projects. In her study, Batra (2020) found that over 40% of respondents reported a success rate of 75% in terms of quality delivery, on-time delivery, end-user acceptability, risk-sharing efficiency, and a 50% success rate in terms of profitability. However, for housing PPPs, the relative value of an aspect's success rate may vary. For instance, the desired profit or return on investment component may be less critical than end-user acceptability. Thus, in addition to examining the success rate of various PPPs, it is critical to understand which elements contribute to the success of housing PPPs (Batra, 2020).



Tang et al. (2009) suggested that the discussion between the public and private sectors should focus on the following key points: risk-sharing, financing terms, the contractual agreement between the parties, development of partnership models, and strategies for selecting the best type of PPP. Therefore, risk-sharing and allocation are critical components of any PPP compared to alternative procurement methods.

Figure 2.10: Success Rate Observed in PPP

Source:(Batra, 2020, p.1131).

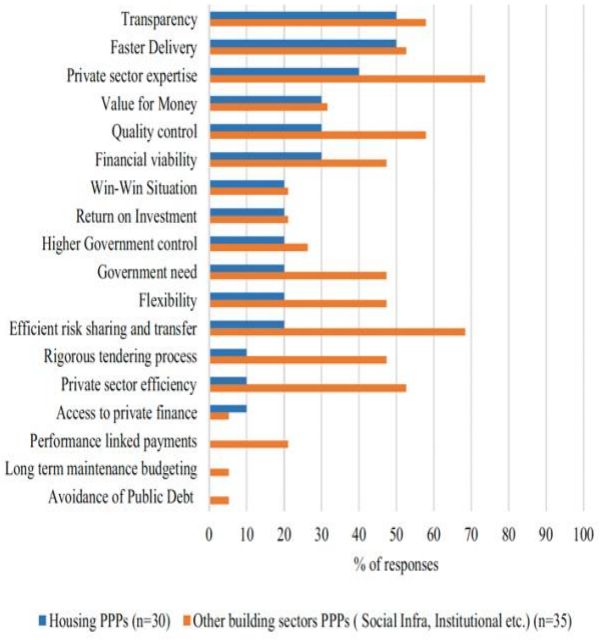
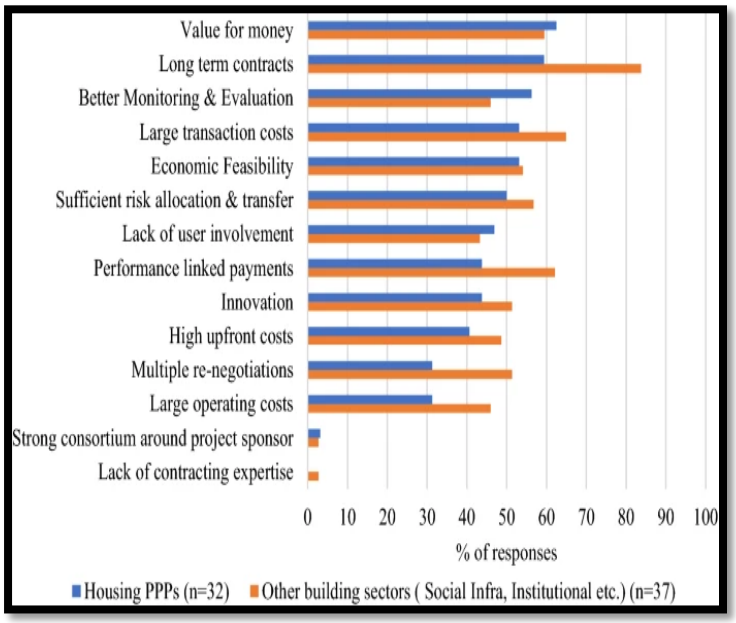


Figure 2.11: Selection Criteria for PPP Procurement

Source: (Batra ,2020, p.1133)

The private partner is generally responsible for all risks associated with design, building, maintenance, and operation. Furthermore, according Batra's study, approximately 50% of respondents viewed financial viability as a critical factor for other building sectors PPPs and 30% for housing PPPs. However, determining the financial feasibility of a project may be more critical as a selection factor to determine its bankability and whether it requires government support in the form of subsidies or grants. Faster delivery and greater transparency are also significant factors for respondents in all forms of constructing PPPs, including housing (Akintoye et al., 1998; Corner, 2006; World Bank Group, 2019; as cited in Batra 2020, p.1133).

Furthermore, researchers have attempted to ascertain the key characteristics of PPPs and determine whether any of these are particularly applicable to housing PPPs. Batra (2020) categorised the characteristics on the basis of the extant literature and preliminary surveys. Significant characteristics such as long-term contracts



or high transaction costs were deemed significant by approximately 60%–70% of respondents in other building sectors. Figure 2.13 presents the major characteristics of PPPs as identified by Batra (2020).

2.13.5 Suitability of PPP for Housing delivery

According to Batra (2020), 89% of respondents agree that PPP is a viable strategy for housing delivery and should be explored. It was related to her study's objective of determining the suitability of PPPs for housing. The success of numerous PPP housing projects in countries such as the UK and Ireland has also substantiated a positive view for the applicability of PPP in housing (Batra, 2020).

Figure 2.12: Major Characteristics of PPPs
Source: (Batra, 2020, p.1132).

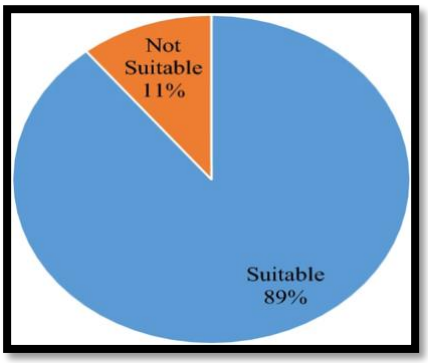


Figure 2.13: Applicability of PPP
Source: (Batra, 2020, p. 1141)

The contract model specifies how responsibilities, risks, and financial terms are allocated. Along the lines of the study conducted by Batra (2020), Figure 2.15 shows the commonly adopted contract models in PPPs. In her study, DBFO (Design–Build–Finance–Operate) has scored the highest percentage of 65%, followed by DBFM (Design–Build–Finance–Maintain) with 62% and BOT (Build–Operate–Transfer) with 59%, which are some of the most often used models in other building industries. Furthermore, DBFMO and DBOF models are also the most frequently used in PPP literature (DOELG, 2000; Lu et al., 2000; World

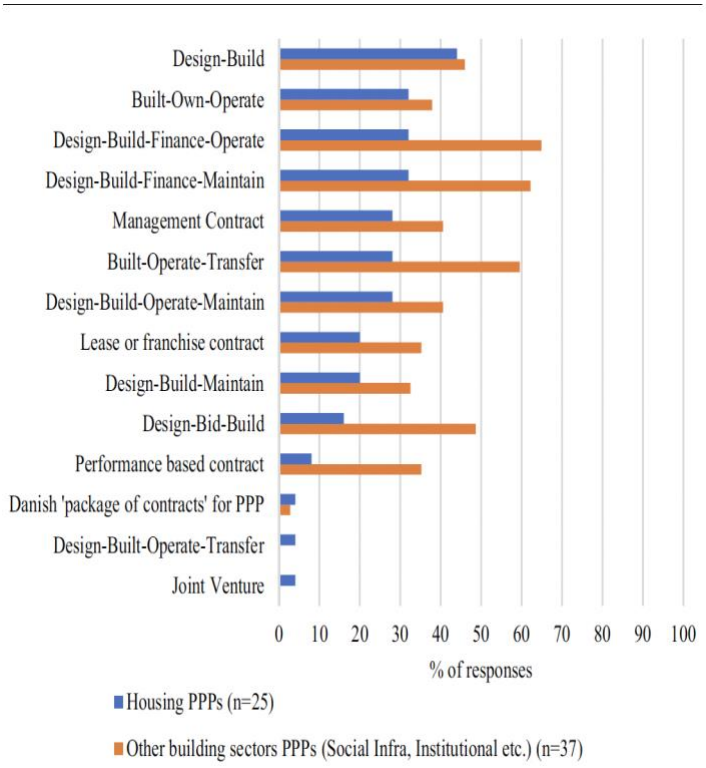


Figure 2.15: Contract Models Frequently Used in PPPs
Source:(Batra,2020, p.1134)

Bank, 2014, as cited in Batra 2020, p.1134). This conclusion is further corroborated by the fact that PPP models succeed when private financing and management are available (Lu et al., 2000, as cited in Batra ,2020, p.1134). On the other side, the DB, DBFO, DBFM, and BOO models are frequently used in housing PPPs. However, only roughly 30% of respondents said that other models other than DB were used in housing PPPs. As a result, it may indicate a lack of use of alternative models in housing PPPs, though a number of PPP housing case studies demonstrate the use of models such as DBFM and DBOF in the UK and Ireland (Batra, 2020).

2.13.6 Build–Operate–Transfer and Design–Build–Finance–Operate Models

Even if some public sector operations are transferred to the private sector, the BOT agreements constitute a relatively limited form of private sector partnership. The first fundamental form of partnership is the BOT for PPPs. While the public sector sets the asset's standards and output quality requirements in detail, the private sector must evaluate how to meet those standards while staying within budget constraints. Private parties must bear in mind that any design or construction issue will harm profitability during operation and maintenance or more sophisticated agreements. Under BOT agreements, the private partner is responsible for the whole operating life of the project, including design, construction, and operation. This type of PPP requires the public sector to finance the whole project cycle in its entirety, which can last up to 20 years; combining these responsibilities under the supervision of a single operator can result in enhanced efficiency (ADB, 2011).

Another type of PPP agreement takes place when financial responsibility is transferred to the private sector in the form of concessions. It is commonly referred to as a DBFO PPP. In a DBFO, the private party assumes complete control of the project's lifecycle and finances. This type of PPP typically grants an operator the right to build and operate a public facility for a period of 25–30 years, with the investment being financed through user fees or shadow tolls (in the case of roads), which are payments made by the state to the private operator based on the asset's level of use. As a result, the private party will finance, construct, and manage

the asset. The state may also compensate it in accordance with its performance (e.g. shadow tolls based on a motorway). However, the state maintains ownership of the asset, which reverts to its authority at the end of the concession (ADB, 2011).

It is the most prevalent and attractive type of PPP and is often used in EU member states, notably for transportation infrastructure. This reflects the fact that it shifts financial responsibility to the private sector, thereby lowering government spending. The private party may assume complete risk, with the government required to interfere if the standards and outcomes are not adequate.

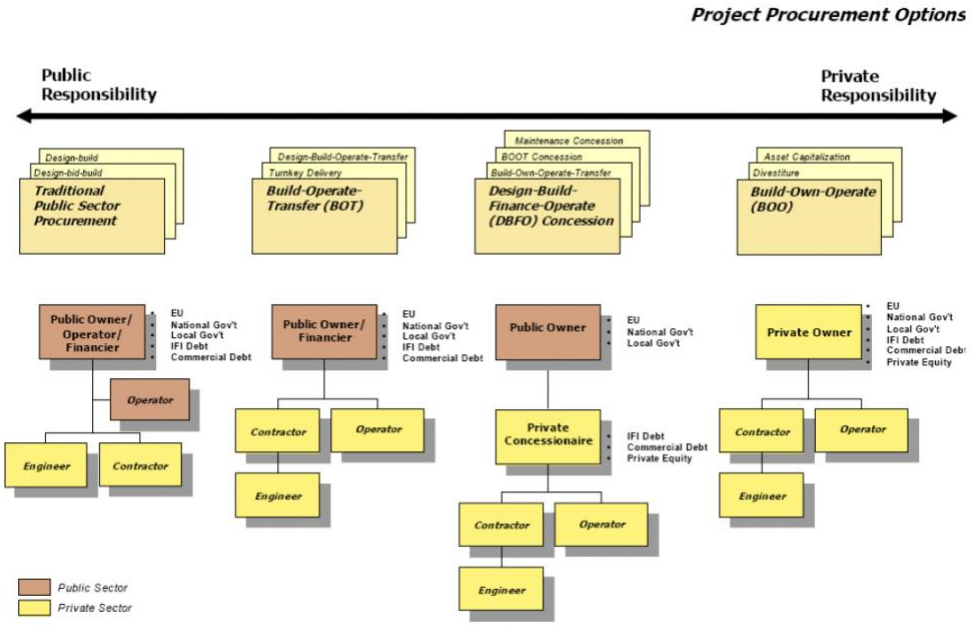


Figure 2.15: Project Procurement Options

Source: European Commission (2003, p.18) and ADB (2011, p.14)

2.13.7 Matrix of Findings on PPP Types and Structures

Table 2.5 describes different models of PPP used in the literature. It shows the advantages and disadvantages of each model, and it has been used in Europe to provide different infrastructures. There are always some practices that can be learnt from this description and applied to the provision of affordable and gap housing in cases as in South Africa.

PPP Type	Main Features	Application	Strengths	Weaknesses
Contracting	• Contract with Private party to design & build public facility • Facility is financed & owned by public sector • Key driver is the transfer of design and construction risk.	• Suited to capital projects with small operating requirement. • Suited to capital projects where the public sector wishes to retain operating responsibility.	• Transfer of design and construction risk. • Potential to accelerate construction programme.	• Possible conflict between planning and environmental considerations. • May increase operational risk. • Commissioning stage is critical. • Limited incentive for whole life costing approach to design. • Does not attract private finance
BOT	• Contract with a private sector contractor to design, build and operate a public facility for a defined period, after which the facility is handed back to the public sector. • The facility is financed by the public sector and remains in public ownership throughout the contract. • Key driver is the transfer of operating risk in addition to design and construction risk.	• Suited to projects that involve a significant operating content. • Particularly suited to water and waste projects.	• Transfer of design, construction and operating risk • Potential to accelerate construction • Risk transfer provides incentive for adoption of whole life costing approach • Promotes private sector innovation and improved value for money. • Improved quality of operation and maintenance. • Contracts can be holistic • Government able to focus on core public sector responsibilities.	• Possible conflict between planning and environmental considerations. • Contracts are more complex and tendering process can take longer • Contract management and performance monitoring systems required. • Cost of re-entering the business if operator proves unsatisfactory. • Does not attract private finance and commits public sector to providing long term finance.
DBFO	• Contract with a private party to design, build, operate and finance a facility for defined period, after which the facility reverts to the public sector. • The facility is owned by the private sector for the contract period and it recovers costs through public subvention. • Key driver is the utilisation of private finance and transfer of design, construction & operating risk. • Variant forms involve different combinations of the principle responsibilities.	• Suited to projects that involve a significant operating content. • Particularly suited to roads, water and waste projects.	• As for BOT plus: • Attracts private sector finance; • Attracts debt finance discipline; • Delivers more predictable and consistent cost profile; • Greater potential for accelerated construction programme; and • Increased risk transfer provides greater incentive for private sector contractor to adopt a whole life costing approach to design.	• Possible conflict between planning and environmental considerations. • Contracts can be more complex and tendering process can take longer than for BOT. • Contract management and performance monitoring systems required. • Cost of re-entering the business if operator proves unsatisfactory. • Funding guarantees may be required. • Change management system required.
Concession	• As for DBFO except private party recovers costs from user charges. • Key driver is the *Polluter Pays Principle* and utilising private finance and transferring design, construction and operating risk.	• Suited to projects that provide an opportunity for the introduction of user charging. • Particularly suited to roads, water (non-domestic) and waste projects.	• As for DBFO plus: • Facilitates implementation of the *Polluter Pays Principle*; and • Increases level of demand risk transfer and encourages generation of third party revenue.	• As for DBFO plus: • May not be politically acceptable • Requires effective management of alternatives / substitutes, eg alternative transport routes; alternative waste disposal options)

Table 2.4: Description of Different Models of PPP

Source: European Commission (2003, p. 28) and ADB (2011).

Additionally, it is critical to note that the terminology describing the partnership process is not uniform or standardised. Numerous terms are frequently used interchangeably. In this way, the researcher has compiled other PPP forms derived from those discussed above. For example, BOT can be used to refer to both public and private partnerships. As such, PPP practitioners need to look beyond the terminology and concepts and understand how the partnership process works (ADB, 2011).

2.13.8 Suitable Models in the Provision of Affordable and Gap Housing

It appears that South Africa has to learn from successful international examples of affordable and gap housing case studies because PPP in the provision of affordable housing is a new approach that the country has to learn from a worldwide background of experience.

2.13.8.1 Design–Build–Finance–Operate–Manage

A long-term agreement is a method of project delivery that enables a private sector contractor to design, build, and finance a project, as well as manage the operations and maintenance of the facility. As discussed above, the DBFOM model is an extension of DBFO, where the private partner assumes complete control of the project's lifecycle and finances. This structure of PPP typically grants an operator the right to build and operate a public facility for a period of 25 to 30 years. The public sector typically prefers the use of the DBFOM model for two purposes, including

transferring project risk to a private-sector contractor and assigning project responsibilities to a private contractor or developer with experience and competency skills in areas where the public sector lacks. The public sector can allocate responsibilities without giving up ownership of the project by grouping the project's components. In fact, the public sector gives away the responsibilities without surrendering ownership of the facilities.

As discussed earlier, the literature discusses how the state of Sao Paulo, through its housing company (CDHU), used to take on a significant role in the supply of affordable housing, with specific fiscal resources (1% of the VAT annual allocation for housing production). However, the state of Sao Paulo realised that, based on its budget, it would take 50 years for the state to address the current housing demands of the population with earnings comparable to one to five minimum wages. Furthermore, the private sector's involvement was deemed necessary as the public sector had a limited capacity for indebtedness. As a result, it was required to encourage private developers to participate in housing delivery for social interest, overcoming a model in which the public sector is the nearly exclusive provider of affordable housing for the state's low-income population. The PPP operation was then established to increase housing supply by leveraging the private sector's capacity, including its ability to borrow from both private and public financial institutions.

As stated earlier, in the section (2.9.13) the risks have been shared and distribute. By reading the responsibilities of both the public and private sectors, it is possible to measure how much risk has been allocated to each sector. In terms of how much risk has been retained by the government and what risks have been shifted to the private sector (see the Figure 2.15).

Advantages of Design–Build–Finance–Operate–Manage

The DBFOM model of PPP enables service availability payments where the availability payment is made, which is critical for affordable housing projects as it ensures that the government makes unitary payments to the special purpose vehicle (SPV) for services and facilities delivered per pre-agreed standards that have a higher value for money (Ngcuka, 2010; Damian, Alex, and Evelyn, 2011; as cited in Ojwang, 2015). The DBFOM model's PPP finance structure allocates the risk to the party best prepared and suited to manage it at the lowest cost, allowing the public entity to leverage private sector project management expertise.

According to researchers and experts, in a DBFOM framework, the private partner assumes primary responsibility for project delivery (Ngcuka, 2010; Silviu and Michael, 2009 as cited in Ojwang, 2015). Under this arrangement, concessionaires have a tremendous incentive to improve the efficiency of the construction, operation, and maintenance of a project, yielding significant time savings. Additionally, it was suggested that contracting a ‘bundle’ of services such as design, construction, finance, operations, and maintenance to the private sector generates more value for money than contracting the services separately. As a result, the output is more significant gains in integration, which can be defined as the life cycle method (Ojwang, 2015).

Government Offtake / Government Pays with Annuity (Rental)

In the housing rental market, this model might be used. The government engages private-sector contractors, and they are expected to handle all aspects of design, construction, financing, and long-term maintenance (DBFM contracts: 10–20 years) before returning the units to the government. The government pays the private-sector contractor an annuity designed to cover the total cost of design and construction, including profit and any escalations, and could also include affordability compensation for tenants who fulfil the specified eligibility conditions. It is the responsibility of end-users to perform internal maintenance on their units. The government remains liable for any risks associated with non-repayment or offtake.

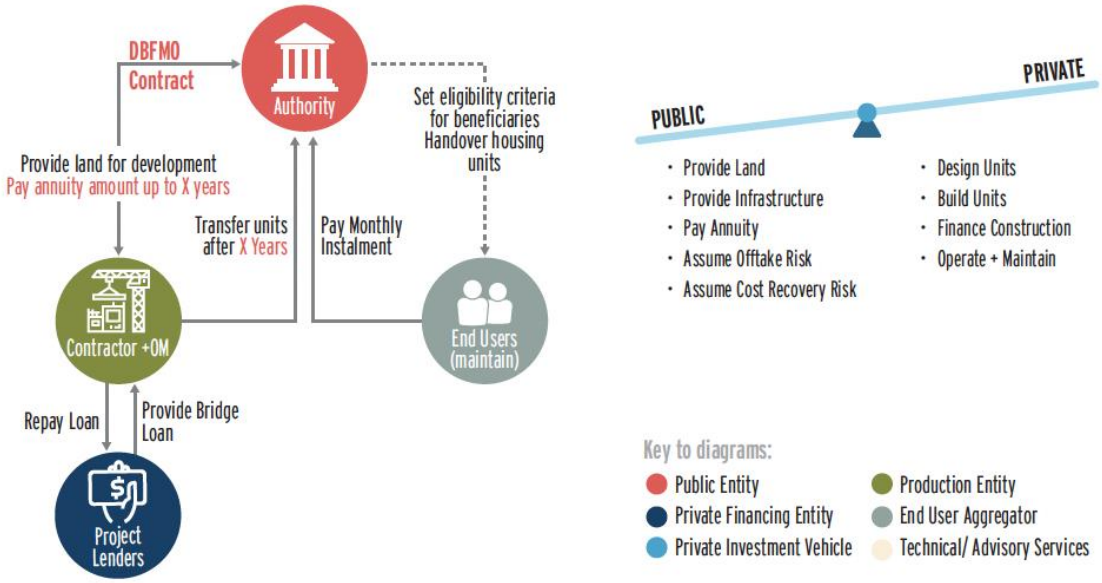


Figure 2.16: Government Offtake / Government Pays Annuity (Rental)

Source: World Bank Group (2020)

Government Offtake / End-User Pays (Rental)

This model is identical to the preceding one, except that the private sector assumes an operational role in addition to its DBFM duty, collecting rent directly from tenants (DBFMO contract). The private sector contractor is compensated through rent collections in this scenario. Therefore, the rental price point must cover all costs associated with design, construction, and maintenance (including profit and any escalations) within a predetermined contract time (say 10–20 years) prior to the units being returned to the government. End-users are responsible for internal unit maintenance under this model, while the government is responsible for risks associated with offtake or tenant's non-payment. Additionally, the government may pay cash for affordability compensation to tenants who meet certain criteria.

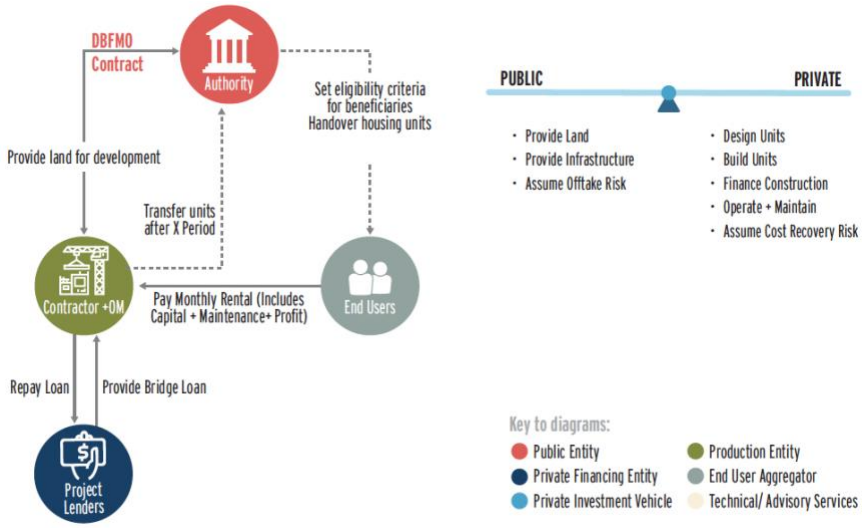


Figure 2.17: Government Offtake / End-User Pays (Rental)
Source: World Bank Group (2020)

2.13.8.2 Design–Build–Finance

DBF has also been adopted as a structure for private sector participation in the model Bhubaneswar in India to provide affordable and gap housing to Bhubaneswar residents (See Figure 2.18).

Government Offtake / Government Pays (Sale)

This model mandates the private sector contractor to design, build, and finance the units before returning them to the government (DBF contract). The private sector contractor is paid in cash by the Government. The Government then assumes additional risks associated with offtake, sales, and mortgage financing. Mortgage financing is either provided by the government or private banks with National Housing Bank subsidies.

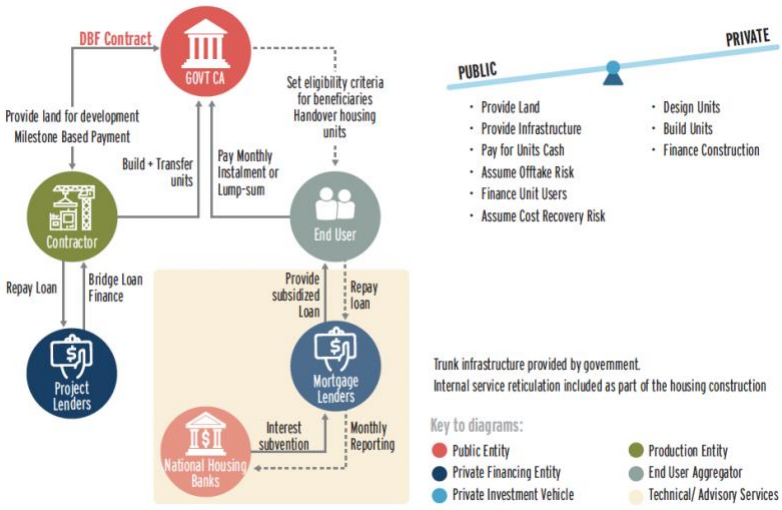


Figure 2.18: Government Offtake / Government Pays (Sale)
Source: World Bank Group (2020).

Government Offtake / Government Pays with Land (Sale)

This PPP structure is similar to the previous one (Figure: 2.19) except that the government pays for the units through land and associated development rights rather than cash. The land and development rights

must be worth at least as much as the cash option (in present value terms) to give a significant incentive. As discussed above, this structure has been used in India's Bhubaneswar PPP project.

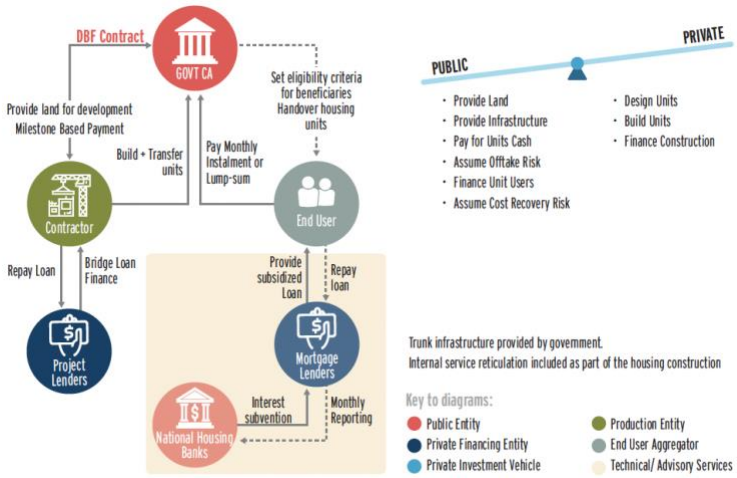


Figure 2.19: Government Offtake / Government Pays with Land (Sale)

Source: World Bank Group (2020).

Government Offtake / End-User Pays (Sale)

This model is targeted at housing intended for sale. The private-sector contractor is responsible for designing, building, and financing the units and recovering costs through end-user sales. Thus, the unit price point must include all costs associated with design, building, maintenance, profit, and any escalations. Under this approach, the government retains responsibility for end-user offtake and mortgage financing through private banks capitalised by the National Housing Bank. As such, the private sector contractor does not need to have the knowledge and be familiar with the end-user market.

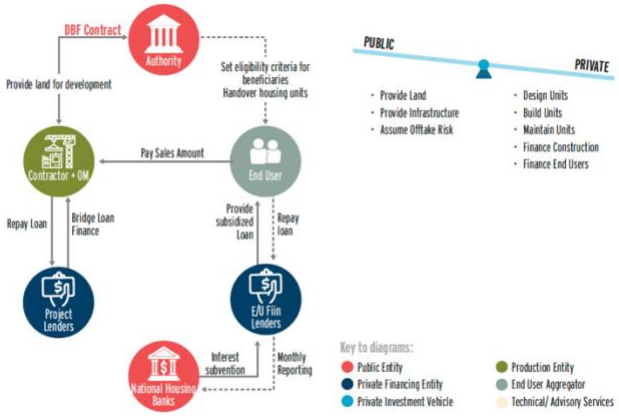


Figure 2.20: Government Offtake / End-User Pays (Sale)
Source: World Bank Group (2020).

2.13.8.3 Equity Partnership

This model has been adopted in the construction of Regent Park in Canada. All partners agreed on their contribution and sharing of the risks and profits of the affordable housing project. As mentioned in the next

section (2.13)(see the annexure D, for more details on Regent park), for its part, the City of Toronto agreed to waive developmental fees and real estate taxes on all supportive housing units, as well as cover a large portion of the infrastructure costs for the construction of new parks and roads. Furthermore, Toronto Community Housing agreed to undertake several feasibility studies to find out the best approach for community regeneration and to provide a portion of the funding for the supportive housing units designated for the promotion of affordable housing to the residents of Regent Park. On the other hand, Daniels promised to help finance and oversee the design, building, and completion of all housing units as the private developer (UN-Habitat, 2011).

Market Offtake / End-User Pays (Rental)

This PPP structure is derived from the Kenyan initiative. The government's role here is limited to providing land and trunk infrastructure. Additionally, the government establishes urban planning and housing standards. In exchange for a shareholding, the land is vested in an SPV. The remaining shares are sold in a competitive public offering to the private sector. After capitalisation, the SPV takes on the responsibility of designing, building, financing, maintaining, and operating the rental housing stock. Rental price points take into account all costs, including profit and finance. There is no transfer of power to the government. Additionally, the SPV is responsible for identifying tenant offtake and, as such, must have a clear understanding of the low-income rental target market.

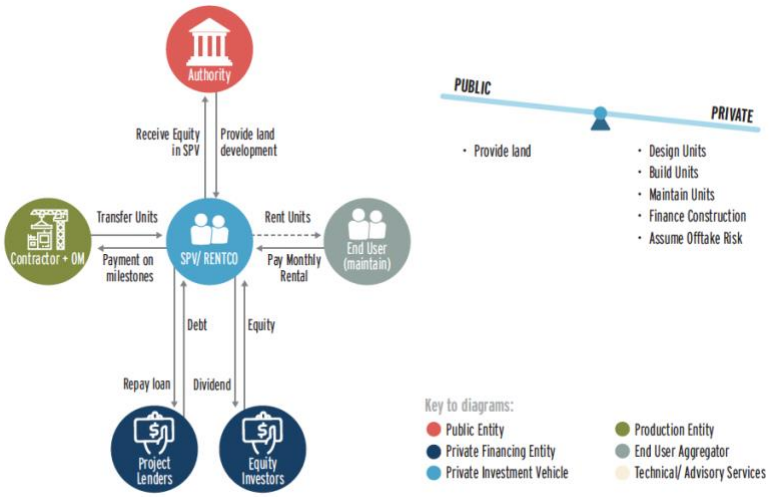


Figure 2.21: Market Offtake / *End*-User Pays (Rental)
Source: World Bank Group (2020).

Market Offtake / End-User Pays (Sale)

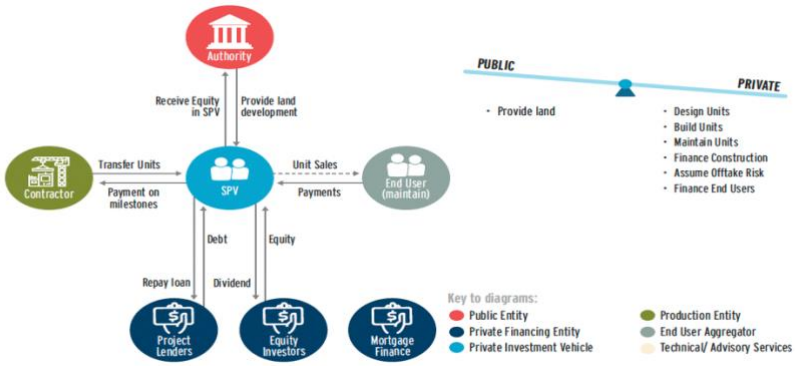


Figure 2.22: Market Offtake / End-User Pays (Sale)

Source: World Bank Group (2020).

2.13.9 International Applications of PPPs in Affordable Housing Case Studies

This section presents some of the international examples of PPPs that have been used elsewhere (worldwide) in providing affordable housing. All the case studies discussed below are in the urban housing sector. The case studies show a range of partnership models that have been implemented in different countries at various stages of economic development. Four applications of cases studies have been selected from different countries, including one from a developed country Canada (Regent Park in Toronto: It can be accessed in the reference list in the document published by UN-Habitat, 2011)), and three from the emerging economies countries (India, Brazil, and Kenya). These cases demonstrate the various ways in which PPPs have been structured to match local conditions within the emerging economies, which is the same case as the South African context, and many lessons should be learnt from those examples.

Among EMEs, the Casa Paulista housing programme is the oldest of the three PPP projects covered, and it is well into the operations and maintenance stage. The Indian Bhubaneswar Affordable Housing Project is now under development, while Kenya's Naivasha Affordable Housing Project is currently in the bidding stage. The lattermost case will be explored in the discussion chapter as per the field data collection outcome. However, as its housing scheme is still at the bid-evaluation stage, and a prototype project is currently being implemented, some lessons can be learnt from it, especially during the pre-construction period of the development. The in-depth analysis and other details on these case studies should be found from the research done by the World Bank Group in the year 2020 and published in Washington, DC. The research focused on using PPPs for the investment and delivery of affordable housing in emerging market economies, the research can be accessed through the references, listed as (World Bank Group, 2020). The following section is the synthesis (Key Issues and Lessons) from those case studies.

Case Studies Synthesis: Key Issues and Lessons

One of the research sub-questions was to know how a PPP operates and the extent to which it can contribute to affordable gap housing delivery in inner-city areas. The first lesson is related to contextuality. It was recommended that before adopting any PPP model, three main points must be taken into consideration. First, country-context i.e., in terms of policy, legal, fiscal, and institutional considerations; second, city context, i.e., in terms of planning legislation, development rights, and property taxes; and third site context, i.e., in terms of location, developability, infrastructure, and marketability. Therefore, as recommended by World Bank Group (2020), a multi-disciplinary and integrated competence is essential to fit together housing PPP strategies.

Other key lessons are related to the investment and incentive strategies (financial and non-financial) that can be used by the government to attract the private sector participation, and different strategies have been used as discussed above. In all case studies, the private partner is unwilling to develop housing for lower-income groups unless motivated by public asset provision, subsidy, or incentive in each context. The government's duty is to use its limited resources wisely and gradually to wean the private sector from these dependencies as the market grows.

While strategic use of subsidies, cross-subsidies, or incentives can ensure affordability and profitability, replication cannot be guaranteed, and a market cannot be developed unless the subsidy or incentive is sustainable and is regularly reviewed and adjusted to mobilise increasing levels of private investment and risk-taking based on the maturity of the private sector experience in PPP. Governments have frequently been more interested in PPPs than market participants, making housing PPPs a challenge. In many cases, it takes time for the private and public partners to learn how to work together effectively (World Bank Group, 2020).

The case studies illustrated intervention at both the ecosystemic (via policies, public institutional intermediation, etc.) and project level (land, infrastructure, and development rights). Distinguishing enablement from implementation, particularly at the project level, presents a problem for scaling these modalities. There is much to be learnt from the implementation of these initiatives, particularly in places where failure has occurred, and from how precedent should reshape the policies. This lesson should be learnt from these applications, and errors are unavoidable in some circumstances and are more likely to be repeated. Thus, it is critical to adapt the new strategies to reshape and review the policies for the PPPs to be successful.

2.14 Conceptual Framework

Figure 2.23 illustrates the possible causes, interfering factors, effects, possible interventions and role players involved with providing affordable housing in inner-city areas.

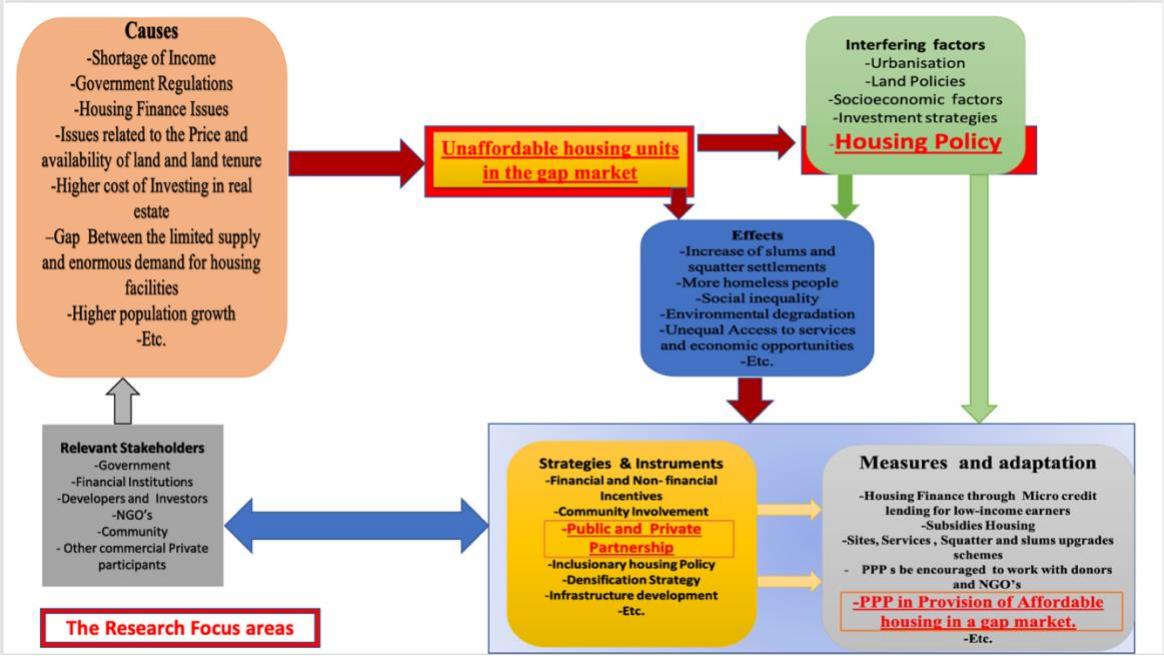


Figure 2.23: Affordable Housing Context

Source: Author's Construct, 2022

Based on different international comparisons of public-private partnership in the provision of affordable housing, the literature review revealed that lessons from international practice may have relevance in the South African context. The literature review has identified the leading players in the delivery of gap housing. The government, developers and investors, financial institutions, and end-users are all critical in delivering gap housing and its viability. However, each role actor has unique problems in the delivery of affordable housing. Therefore, even though all the role players face various problems, feasible solutions have been identified to overcome the restricting issues.

The conceptual framework for this research is crucial since it contributes to the research objectives by identifying research variables and clarifying their relationships (McGaghie et al., 2001). In addition, the conceptual framework, linked to the problem statement, "sets the stage" for the presentation of the research question that drives the investigation being reported (McGaghie et al., 2001). Key factors that impact on the appropriate type and the viability of PPPs include affordability, institutional capacity and resource constraints , and suitability of PPP as illustrated in Figure 2.24.

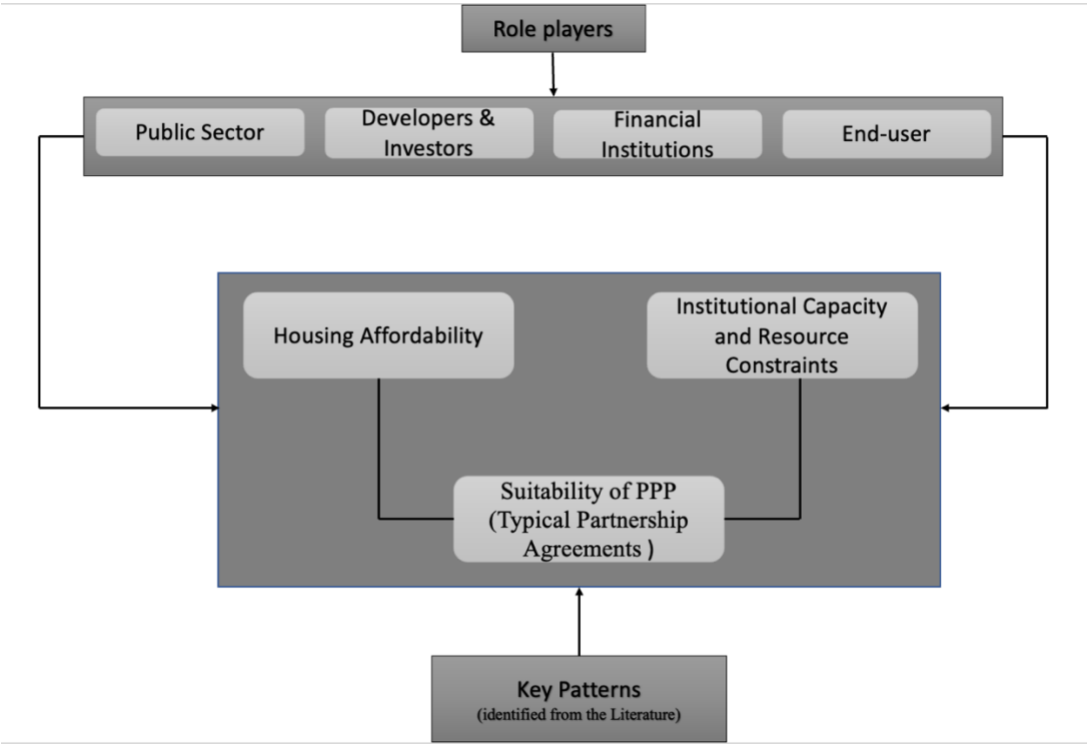


Figure 2.24: Research Conceptual Framework
Source : Author's Construct , 2023

Housing Affordability

The literature review has revealed some of the main factors contributing to affordability challenges, namely low household incomes, poor credit records limiting access to finance, rising building costs, and scarcity

of affordable, well-located land for human settlements development. Developers in South Africa face a number of obstacles that impact on providing affordable housing for lower middle income earners, and these include lengthy planning approval processes, high construction and housing finance costs, and a paucity of partnerships with government institutions. Section 26 of the South African Constitution states that everyone has a right to have access to adequate housing; and that the state must take reasonable legislative and other measures within its available resources to achieve the progressive realisation of this right. Critical to realising this right is access to mortgages and housing availability. End user housing affordability depends on three factors, namely household income, property price and access to credit. In other words, it is a function of a household's income and the existing credit obligations of the household. In South Africa, this key pattern is linked to mortgage finance accessibility, which is primarily limited to the bracket of high-income earners and consumer indebtedness, and therefore housing unaffordable remains a serious concern for policymakers. As a result, some lower middle-income earners whose loan applications are denied by banks and other financial institutions due to a lack of affordability, often turn to microlenders, who charge high-interest rates for incremental loans, while others are left stranded. The affordability of a loan to a household or end-user is dependent not only on income and assets but also on the borrower's credit history. Furthermore, affordability linked to the end-user can be manifested in both direct and indirect ways. For example, although a household can afford to purchase a gap housing unit in inner-city areas, the related living expenses (such as municipal rates or levies) may burden the end-user, creating an affordability issue. It is also directly related to the private sector (developers, investors, etc.) in terms of the profitability and costs associated with delivering affordable housing development in the gap market.

Institutional Capacity and Resource Constraints

Institutional capacity and resource constraints are the second pattern that has emerged from the research. This term refers directly to the government's role and its limitations regarding the provision of gap housing. The lack of government expertise, capacity, and constrained resources hinders the development of affordable housing in close proximity to amenities, economic opportunities and employment prospects. The government's inability to adequately respond to the demand for affordable housing is due to limited resources at its disposal, and this necessitate's the private sector's inclusion in delivering affordable housing. Closer co-operation between the state and the private sector should be encouraged and incentivised in order to reduce the gap between the rising need for affordable housing and the limited supply, by dividing up the associated investment risks and pooling the participants' financial, human, technical, and non-tangible resources such as information and political support. Attempts by the government to provide housing in inner-city areas are hampered by the fact that land values in these locations are much higher than in the townships and the suburbs, making development in these places unaffordable. In addition, the government lacks the capacity to efficiently deliver housing to the necessary individuals, necessitating assistance from the developers, investors, and other role players in the housing market.

Housing delivery barriers include costly land, infrastructure, finance, and construction costs, inadequate market targeting in terms of affordability; and delays in achieving statutory development standards. The

resale market is hampered by administrative impediments in the transaction process and access to funding, especially in entry-level market areas, which disproportionately affect lower-middle income earners. Consequently, the local government must be motivated to extend its locational benefits to all of its residents so that it can fulfil its constitutional obligation to ensure progressive access to adequate housing, but also leverage the value of the property asset for the benefit of all residents and support their economic inclusion and spatial transformation objectives.

Suitability of Typical Partnership Agreements

As the demand for affordable housing increases, governments across the globe view the public-private partnership (PPP) model as a useful approach to maximising the state's limited (financial, human, and technical) resources for affordable housing delivery. To solve the issue of unaffordable housing in the inner-city areas of South Africa, it is crucial to present a PPP framework that can attract both investors and developers. The literature review has revealed various PPP models that transfer obligations and liabilities to public and private participants in a variety of ways and has provided a glossary of terminology frequently used to describe typical partnership agreements. This critical pattern is essential to this study since the research aims to identify the most suitable model and structures of PPP and government undertakings for delivering affordable housing in a gap market.

This pattern relates to all parties involved in the process of supplying affordable housing in a gap market, including the government, developers, investors, financial institutions, end-users, and other commercial private sectors. The government's failure to meet the demand for affordable housing, and its limited resources, skills and capacity necessitate the private sector's participation in public services. Therefore, the inclusion of the private sector in the development of affordable housing was recommended as a means of bridging the affordable housing delivery gap in a gap market. To bridge the gap, the literature review suggests using urban land-use policies that incentivize (or force) developers to include affordable units; Inclusionary Housing (IH) refers to the affordable units that result from new developments that would otherwise consist exclusively of market-rate housing. This method of IH relies on Land Value Capture. It uses a portion of the increased land value resulting from public regulation changes and additional development rights to finance the housing that is produced.

The PPP project cycle in South Africa is the road map for the PPP process. It permits the three regulatory tests of affordability, value for money, and risk transfer to be applied at every stage of the planning, procurement, and management of a PPP agreement. Regulation 16 defines the project cycle as having six distinct phases. It stipulates that the institution must apply these tests throughout the process and that specific Treasury approvals must be obtained. The literature review has revealed various PPP models that transfer responsibilities and risks to public and private participants in various ways and has presented a glossary of terms commonly used to describe typical partnership agreements. This key pattern is essential to this study because the research seeks to identify the most suitable models and structures of PPP and government offtakes for providing affordable and gap housing.

The public sector engages in PPPs, particularly in the provision of gap housing in inner city areas, for the following reasons: to attract private capital investment (often to supplement public resources or release them for other public needs); to increase efficiency and use available resources more effectively; and to reform sectors by reallocating roles, incentives, and accountability. Through an agreement, the public and private sectors pool their skills, expertise, and resources to provide a service or facility to the general public. In addition to sharing resources, each partner shares the associated risks and rewards for providing the service or facility. The private sector's involvement is therefore deemed necessary as the public sector has a limited institutional; capacity and has resource constraints. The literature and case study review shows that PPPs can be an effective way to incentivise the private sector to join forces with the public sector to provide affordable housing for those households that do not qualify for significant state subsidies nor for commercially available bonds. The PPPs therefore exists to increase housing supply by leveraging the private sector's financial, construction, management and other costs savings capabilities. The next chapter outlines the case study research methodology.

2.15 Synthesis

The literature review revealed that South Africa has a housing crisis, and there is, in particular, an urgent need to address and resolve the challenge of affordable housing. Low-to middle-income households are unable to afford housing units in the market. Numerous studies have demonstrated that the lack of accesss to unaffordable housing is primarily caused by a shortage of income and a lack of housing finance, an increase in the cost of investing in real estate, government regulations, and issues relating to the price and availability of land and tenure. The housing market can be defined in terms of segmentation (e.g, by income brackets, loan affordability) or disaggregation (e.g, supply quantity and resale ability) and all of these characteristics have an impact on the filtering process of the housing market. A number of interfering factors, such as urbanisation and housing policies contribute to the complexity of challenges associated with unaffordable housing. The literature review showed that public-private partnership can be used as an approach, strategy and tool to address the issue of unaffordable housing for lower middle income earners by providing affordable housing in the market.

CHAPTER 3: CASE STUDY RESEARCH METHODOLOGY

This chapter outlines the methods utilised to conduct research and how this study was designed and conducted. The chapter begins with explaining the research methodology, then discusses the criteria for selecting the case study area, the study respondents, ethical considerations, data processing techniques, research reliability and validity, and finally research limitations.

3.1 Research Approach, Methodology and Justification

This research will follow the Interpretivism or naturalist philosophy, where the social world can only be understood from the point of view of the individuals who are involved in the activities to be investigated (Gray, D, 2014). The interpretive approach is based on the premise that the researcher is a part of the research, interprets data, and can, therefore, never be completely objective and detached from the research. Interpretivists are interested in particular contextualised environments and recognise that reality and knowledge are not objective but somewhat influenced by the people within those environments. This philosophical perspective is more subjective and susceptible to bias, so it cannot be generalised like positivist research can (Gray, D, 2014).

According to theoretical assumptions, ontology logically precedes epistemology, and epistemology precedes methodology and methodology is concerned with how a particular piece of research should be undertaken and can be understood as the critical; study of research methods and their use (Denzin &Lincoln, 2005). The deductive -research approach is when a researcher commences with an analysis of the literature, identifies a single problem, isolates a central research question, and then formulates a hypothesis that a series of sub -hypotheses can accompany. The data collection followed by the analysis resulting in the findings in terms of the existing knowledge found earlier, and it is structured based on quantitative analysis (Gauch H, 2003). This research employs the "inductive approach," which is a technique in which the researcher collects and analyses data to develop theories, concepts, or hypotheses based on patterns and observations observed in the data. This method is exploratory, adaptable, and heavily reliant on qualitative analysis. Using the inductive approach, plans are developed for data collection, and then the collected data are analysed to determine whether patterns propose relationships between variables. (Gray, D., 2014). According to Simons (2009), the methodology is one way to make the research process more straightforward and transparent, and it can be described as a strategy, plan of action, process, or design that guides the selection and application of specific methods. The methodology also indicates the methods the researcher will likely use (Punch, 2005).

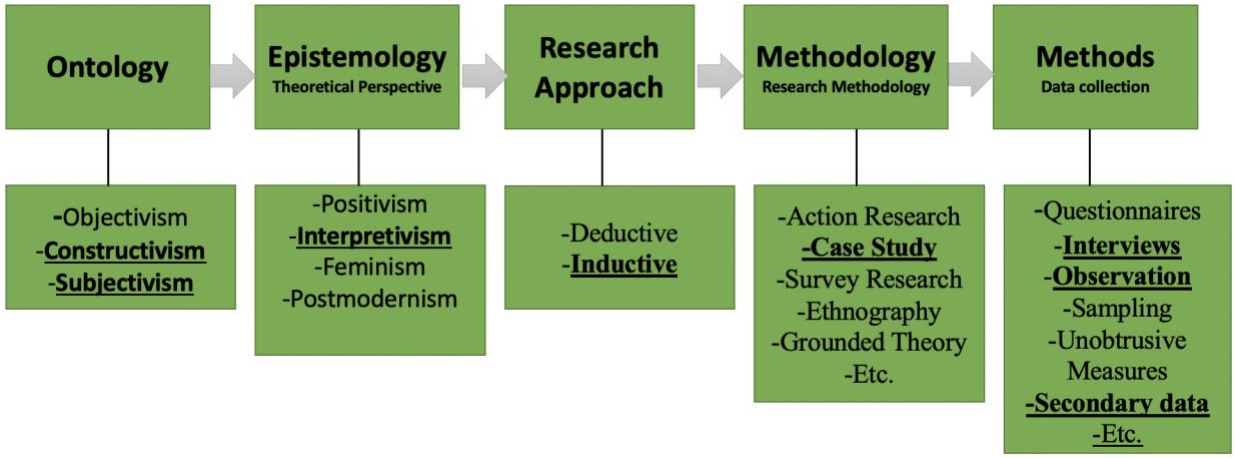


Figure 3.1: The elements of the research process.

Source: Constructed by the author based on (Grey, D., 2014) and Saunders et al., 2012.

3.2 Use of Single Case and Criteria for Selection

In light of the study's aims and objectives (Section 1.4), the explorative case study methodology appeared to be the most appropriate because the study focuses on an empirical inquiry that:'investigates a contemporary phenomenon in depth and within its real-life context especially when the boundaries between phenomenon and context are not clearly evident' (Yin, 2009). The case study method is selected as the preferred method of the research when the following circumstances are present in the research: '(1) how or why questions are being posed; (2) the investigator has little or no control over events and (3) the focus is on a contemporary phenomenon within a real-life context' (Yin, 2009). It is recommended that when establishing a case study question, a researcher has to develop a 'how' and 'why' question that will serve as the justification for the case study. The case study designs must maximise their quality by meeting four critical design quality conditions: construct validity, internal validity, external validity, and reliability (Yin, 2009). The study also appears to fit the parameters and components of case study research as outlined in Table 3.1 by Yin (2009).

Research Methods & their requirements	Case Study	Survey	Archival Analysis Analysis	History	Experiment
Form of Research Question	How? Why	Who What Where How Many How Much?	Who what where How Many How Much ?	How Where?	How why
Control Over Behaviour	No	No	No	No	Yes
Focus on Contemorary events	Yes	Yes	Yes/No	Yes	Yes

Table 3.1: Considerations/Conditions When Selecting A Particular Research Method
Source: Adapted from Yin (2009).

3.2.1 Selection of Case Study

Cape Town was selected as a case study in response to the primary research question: In what ways can public-private partnerships (PPPs) contribute to providing housing opportunities for lower- middle-income earners within the gap market in inner-city areas? Cape Town was selected as the case study owing to several motivations associated with the high number of affordable 'gap' housing shortages existing in the area and the lack of clear policies and strategies to respond to this critical need.

3.2.2 Case Study Research Design

According to Yin (2009), the case study design must have five critical components of a research design, which need to be justified. Those five key components proposed by Yin (2009) are:

a) A study's questions,

b) Its propositions, if any,

c) Its unit(s) of analysis,

d) The logic linking the data to the propositions, and

e) The criteria for interpreting the findings

According to Robert Yin, it is important for the researcher to start with looking at the concept of the research design. Robert Yin has described research design component of a case study as: “a logical plan from getting from here to there, where here may be defined as the initial set of questions to be answered, and there is some set of conclusions (answers)
about these questions” (Yin, 2014, p. 28).

The "here" refers to the initial problem statement to be examined, which in this study is the shortage of affordable housing delivery in a gap market and the subsequent public-private partnership solutions to this problem. On the other hand, "there" refers to the research questions' conclusions. Between "here" and "there," a sequence of actions pertinent to the study must be completed to collect and manage the necessary data to produce the findings upon which the conclusions are based. A case study aims to understand a phenomenon in-depth and its natural setting by recognising its complexity and context, and requires the use of multiple sources of evidences. It entails the use of various methods, including qualitative and quantitative methods, and it is not reductionist in nature (Punch, 2005). This study employs a qualitative method to provide a comprehensive and in-depth examination of the subject.

The shortage of affordable housing in a gap market, in inner-city areas is a disability to the country’s property market . Investigating this as a case study would necessitate the use of numerous sources of evidence in order to have a holistic focus for preserving the unity of phenomenon and gain an understanding as a whole system of how the market operates and to reach realistic and useful conclusions. Prior research is necessary for understanding the investigation's context and provides a stronger sense of direction for the investigation, data gathering, and analysis. The literature review and reports shed light on the present situation of affordable housing delivery in a gap market.

- ◊ **The study’s unit of analysis** is the system being investigated as the subject of the case, which can be an individual, an event, or a process. Based on Yin (2009), the unit of analysis is public-private partnership solutions to affordable and gap housing delivery in inner-city areas of Cape Town.
- ◊ **The study question i**s useful to address questions about how, what and why about contemporary events and events which the researcher has no control (Yin, 2009). For instance, this study question is How can PPP management be integrated into housing planning to improve housing delivery in terms of the provision of affordable housing in a gap market in Cape Town inner-city areas? It follows the ‘how’ approach as mentioned above, in a case study colum.
- ◊ **The study proposition** that the implementation of public–private partnerships (PPPs) can be used as a housing programme and a basis to stimulate the provision of affordable housing opportunities for low-to-medium-income earners residing in inner-city areas in South Africa.

- ◊ **A logical link between the data to be collected** (on the chosen indicators) **and the initial proposition.** Yin (2009) suggests that the case study's design uses pattern matching to link data to propositions. 'Pattern matching' is a potential method for case studies in which many bits of information from the same case may be matched to certain theoretical propositions.
- ◊ **The study's criteria for interpreting findings** were developed by following the analytical techniques of the pattern matching, theoretical propositions, and rival explanations that led to the case study using qualitative method. The document review strategies were intended to evaluate the outcomes of the study's entrenched units, reinforced by explaining the critical propositions based on the data analysis outcomes.

Yin (2009) utilized Campbell's (1969) work to explain why the data matched one pattern more closely than the other; nevertheless, how close must a match be to be declared a match? There is no precise method for establishing criteria for evaluating the findings. As advised by Yin (2009), the data can be interpreted by comparing at least two rival propositions.

The results of the interviews will offer a comprehensive picture of the partnerships now being established in the gap housing market. Multiple individuals from both the public and private sectors have been selected, limiting the risk of bias in the findings. So as not to misunderstand data, the interview findings will be evaluated in combination with the literature, and any patterns will be analysed holistically with the entire market in mind. According to (Kumar, 2005), the first stage in analysing qualitative data from interview transcripts is identifying themes that allow the data to be categorized or analysed effectively. The content analysis process for case study research entails using criteria as a framework for evaluating the unit of analysis.

3.3 Methods of Data Collection

The design of strategies and tools required for this phase of the research was based on two major categories classified under primary and secondary data sources of information. Secondary data rely on the use of work done by other researchers, which help gain a perspective on the subject matter and provide a basis for primary data and activities that directly involve the researcher. The most common sources of data gathering for a case study, comes from: document review analysis (the main value is adding depth to the case); interviews and observation which is named a ‘rich picture’ because it provides a sense of setting (Simons ,2009).

3.3.1 Secondary Data

In this study, the researcher used literature or document review to get insight on the subject matter by recognising what has been done in the past, taking notes of any suggestions for future orientations, and providing a basis for the collection of primary data. Document reviews were primarily collected through academic and scientific literature searches to develop an understanding of the research topic. The literature

review assisted with determining what is now happening in South Africa in terms of what roles the public and private sectors are playing and where the challenges are. It also helped to understand the challenges in south Africa's gap housing market and to uncover examples applications of PPPs that have been used elsewhere in providing affordable housing, and how can these be applied in a case such as the inner-city areas of Cape Town.

3.3.2 Primary Data

According to the book Business Calculations and Statistics Simplified (Saleemi, 1991, 2010), a primary inquiry is the one in which the data have been collected for the first time by the investigators. Primary data is information that has not yet been compiled and hence must be obtained. In other words, it is previously unpublished first-hand information (Kumar, 2005). This research was conducted using a qualitative methodology, including semi-structured interviews as part of a field survey. These semi-structured interviews were performed with the main role actors from both the private sector and the government. The data from the semi-structured interviews are presented and analysed using pattern-matching analysis, drawing on the literature review's key patterns and categorised according to their designated role players. The primary data collected with this research was compared with the secondary data gathered, such as policy documents, best practices and academic literature.

These structured interviews were designed to address the perspectives of each role player as well as the themes that developed from the literature, including affordability, institutional capacity and resource constraints, and partnership (suitability of PPP). The structured interview questionnaires (transcribed interviews) for selected participants were analysed accordingly. The information will be classified into categories according to the themes, and charts from the previous studies were used to elaborate how that information fit in with this research. The outcomes of possibilities were then assessed with the lessons from international affordable and gap housing cases to produce conclusions and recommendations.

The following procedure was followed in order to analyse the qualitative data collected:

- ◊ Interviews were performed with ten property market participants representing varied roles.
- ◊ The interviews/ Questionnaires were recorded and transcribed for a researcher to analyse the text.
- ◊ The literature review highlighted three fundamental patterns that served as the foundation for the pattern-matching method, as illustrated in the table 4.2
- ◊ To correctly analyse the text, the findings were classified according to their specific role actors and associated themes and sub-themes.
- ◊ The text was then further analysed based on the emerging key patterns, broadening the contributing factors in improving the provision of affordable housing delivery in inner-city areas, focusing on the gap market.

3.3.2.1 Interviews

Interviews are conversations between an interviewer and a respondent on a specific topic (Hamed, 2016). A researcher must select the best suitable designs for gathering the data through interviews, which can be designed to be structured, semi-structured, or unstructured. In this research, the topic is the role and contribution of PPPs in providing affordable housing in a gap market in inner-city areas of Cape Town. The research goal includes discovering relevant issues, and there is merit in allowing the respondent to suggest related topics (Hamed, 2016). The interview guide was elaborated in English as most of the experts that deal with PPPs and affordable housing development speak fluent English; this facilitated communication between the researcher and the respondents. These are personal interviews scheduled, which do not appear to be very different from questionnaires.

Using an interview questionnaire ensures that the research is carried out consistently and the results are collected in a format that facilitates analysis. Two types of questions were used, namely, open- and closed-ended questions. There exist numerous potential advantages of using questionnaire. In principle, it can be used to gather data from many geographically dispersed respondents in a relatively inexpensive way. In addition, some questions allow the respondents to answer in their own words (Saleemi, 2010). Interviews with professionals, and other key industry participants were conducted to shed light on the research proposition and questions.

3.3.2.2 Observation

According to Keegan et al. (2009) and Adrian (2012), the observation method involves the planned recording, watching, and analysis of observed behaviours of the people you visit. It is named a 'rich picture' because it provides a sense of setting. Sense-making can include both formal and less formal methods. The former ones are the grounded theories and can be realised through coding, thematic analysis, and cognitive mapping, whereas the latter ones can be achieved by reconstructing narratives, direct interpretation, and intuitive processing.

3.4 Selection of Respondents

Sampling is the process of selecting a subset of the target population from which observations may be made. Due to practicality and time limits, it is not possible to examine an entire population; consequently, conclusions must be formed from sample groups, and it is crucial to choose appropriate test samples (Bhattacherjee, 2012). The selection of knowledgeable experts about the themes and sub-themes related to this study was based on judgmental sampling. It consists of subjects selected by the researcher because of expertise on the research question or possession of characteristics the researcher wants to include (Hamed, 2016).

It is essential to understand the sampling frame, which Bhattacherjee (2012) defines as the accessible portion of the target population from which a sample may be obtained. Selecting interviewees from various

organisational levels, departments, and roles in order to acquire alternative viewpoints on the phenomenon of interest. It must be recognized that the sample from which one may draw has limitations owing to factors such as willingness and locality, among others (Bhattacherjee ,2012). This sample frame will be used to determine a subset of participants. Non-probability sampling is more appropriate to qualitative research than probability sampling. Thus, non-probability sampling approaches will be employed to establish our sample group, comprising experts and stakeholders from the real estate industry who may contribute to this study.

Selecting the relevant respondents for this explorative case study was started by first identifying knowledgeable experts from the housing sector and land use planning and PPP scheme management. In this study, senior consultants from Financial Institutions, DHS, NHFC, SAARDA, City of Cape Town and the National Treasury PPP unit were given open-ended questionnaires to highlight the scope of their respective professions.

- ◊ The respondent DHS-01: Is an assistant Director: Affordable Housing, in Department of Human settlement, Western Cape. The respondent has more than 15 years of experience in Social housing advisory (SALGA) and Affordable housing (DHS) in the City of Cape town.
- ◊ The respondent NHFC-02 is a programme manager at National Housing Finance Corporation, with 5 years of experience in affordable housing project management within NHFC and more than 5 years in other construction project planning and management
- ◊ The respondent SRD-04: is a committee member of South African Affordable Residential Developers Association and has been involved in affordable housing delivery since 1995, and the respondent focuses on township establishment and developments, in both the affordable and upper markets.

- ◊ The respondent APD-05: is the project manager with a private property developers Company, with more than 6 years of experience in preparation of financial viability reports and detailed construction and development cost.
- ◊ The respondent KPD-06 is a general manager at with a private sector developers with more than 20 years specialized in affordable housing market.
- ◊ COCT-07: One participant has more than ten years of experience as a programme manager in the development and delivery of human settlement, particularly in affordable/social housing delivery programmes driving urban spatial transformation in the city of cape town. The second participant has more than 12 years of experience in land reform/restitution, managing social and gap housing in the City of Cape Town. The third participant has more than 10 years in public administration related services including Supporting services of Human settlements in the City of Cape town.
- ◊ WCGCT -08: The participant is the assistant director of Affordable Housing in the Western Cape Government, Department of Human Settlement, but also working hand in hand with the City of Cape Town in the Housing department. The respondent has over 15 years of experience in the housing delivery sector in Cape Town and other areas of the Western Cape. The participant worked

as a programme manager at human settlements, centre for municipal Research and advice. The participant has seven years of experience working as an advisor for Social Housing, in South African Local Government Association (SALGA), specialised in Fund Management, senior government relations with social/rental housing stakeholders, Etc. The participant has five years of experience as social housing advisor for an international organisation specialising in providing essential services, including housing, water, waste management and health care.

- ◊ NEK-09: is a FLSIP specialist responsible for housing loans, sales and distributions at a local commercial bank, an accredited financial institution. The participant has more than eight years of experience working in mortgage financing.
- ◊ ABS-010: is a Senior Specialist in Mortgage financing for home loans, at a local private bank, in Cape Town, Western Cape. The participant has more than 21 years of experience in the financial services industry. The respondent has skills in banking and financial modelling, management, and marketing.

Profile of Participants

These interviews were designed to stimulate the experts' views based on their experience in housing delivery and PPP management practices. In addition, knowledgeable experts from financial Institutions, PPP projects, affordable and gap housing, and the real estate industry, in general, also contributed their knowledge to this study. Stakeholders' consolidated list and indicators for the study area were made and analysed by comparing the results of the literature (documents) reviews in order to select only the relevant and key persons who, as a result of their level of interests and responsibilities, could contribute resources in the form of knowledge to this study. Table 3.2 presents a consolidated list of all key informants (stakeholders):

Participants	Institution/Company name	Assigned Code
1	Department of Human Settlement	DHS-01
1	National Housing Finance Corporation	NHFC-02
1	National Treasury PPP Unit	NTU-03
1	South African Affordable Residential Developers Association	SRD-04
1	ASRIN Property Developers	APD-05
1	Kiron Property Developers	KPD-06
3	City of Cape Town	COCT-07
1	Western Cape Government	WCGCT-08
1	Nedbank	NEK-09
1	Absa Bank	ABS-10

TABLE 3.2: PROFILE OF THE PARTICIPANTS

Source: (Author's Construct)

Participants were assigned a number that was based on the order in which they were interviewed, and a code based on the abbreviation of their institutions, which means knowledgeable expert institution name (KEI), abbreviated as follows: (KEI-0X), where X is the number assigned on the basis of the order in which they have been interviewed.

3.5 Study Validity and Reliability

It is critical to explain and illustrate the basis of any social science research strategy to increase the validity and reliability (Yin, 2009) of the findings and allow for generalisations to be made (Creswell, 2007). According to Patton (2002), validity in a research means ascertaining whether the findings of a research study are valid in the sense that it reflects the situation and is substantiated by meaningful evidence. In other words, it is a measure of the research method's accuracy, meaningfulness, and credibility. For the resulting findings to have some measure of credibility and acceptability, it is crucial that the entire research process and the instrument employed have validity (Neuman, 2007).

The concept of validity can be explained in terms external and internal validity. Internal and external validity are two concepts that assist to figure out how trustworthy and meaningful the research findings are. External validity refers to the extent to which any research findings and conclusions can be generalised and be applicable to the situations beyond the research setting in which the research too place. Internal validity refers to whether the identified inputs within their attributes produced the expected output, or how well the research findings reflect the true cause-effect relationships within the study (Mertens, 2005). The interpretations and conclusions in the research must be supported by the research data, not by unintended or irrelevant variables.

Reliability refers to the consistency of results obtained in the research (reliability of the method of collecting evidence). Under continuous settings, a research method must deliver consistent outcomes. (Creswell & Poth, 2013).

In qualitative research, reliability refers to the consistency of responses to multiple coders of data sets. By using recording devices and transcribing digital files, for instance, it can be improved with detailed field notes. However, validity in qualitative research may be referred to as trustworthiness and credibility rather than reliability in quantitative analysis. In qualitative research, credibility, authenticity, transferability, dependability, and confirmability are the ways that credibility is attained (Lincoln and Guba, 1985). According to Miles and Huberman (1994), validity refers to whether the findings are genuinely about what they appear to be about, and generalisability refers to the extent to which the data are applicable outside the context in which they were collected.

Maintaining and enhancing consistency depends on the comprehensibility and clarity of the research-interview questions, which ensures that each participant comprehends the interview questions in the same way and that the responses from participants can be coded without the possibility of ambiguity.

3.6 Ethical Considerations

Ethical issues in research concern the appropriateness of the researcher's behaviour in relation to the rights of the subjects of the research or those who are affected by the research. (Denzin & Lincoln 2011). The ethical issues of informed consent, risk of harm, confidentiality and anonymity, and conflict of interest must be considered and presented with a plan for managing these ethical issues (Fleming & Zegwaard, 2018). According to Denzin & Lincoln (2011), informed consent is the cornerstone of ethical research. The participants must be fully informed of what will be asked, how the data will be used, and what (if any) consequences there could be. The participants must also be informed about their rights to access their information and withdraw at any point or at any time without reason (Fleming&Zegwaard,2018). In undertaking this study, all ethical issues were considered, including all aspects of informed consent (explaining the research process), maintaining participants' safety, and protecting confidentiality. The letter and consent are attached in the annexures, and ethical clearance was obtained.

3.7 Study Limitations

During the data collection phase, the researcher was not able to interview all professionals and knowledgeable experts in real estate field particularly in housing delivery industry about the themes and sub-themes related to this study, which is likely to have given rise to a selection bias originating from the probability sampling method.

3.8 Conclusion

This chapter elaborates on the research methodology utilised in this study, the aim and rationale of the methodology, and an explanation of how this study was designed and conducted. In addition, it discussed the research instruments used during data collection and the presentation, as well as the proposed qualitative analyses for the data related to its reliability.

CHAPTER FOUR: CASE FINDINGS AND IMPLICATIONS

4.1 Introduction

The chapter discusses the findings and implications of the case study in relation to the literature review in order to respond to the research aims and objectives and, eventually, the main research question. Cape Town is located on the African continent's southernmost tip, it is the legislative capital of South Africa and is located in the Western Cape Province (Caryn et al., 2018). Cape Town is the South Africa's second most populous city after Johannesburg, with an estimated population of 4 million in 2017 with an annual increase of between 1.5% and 2% (Western Cape Government, 2020).The city's economy generates a GDP of around R 300 billion (USD $21 billion) per year, accounting for nearly 10% of the country's total economic output. Cape Town accommodates 64% of the province's population and approximately 70% of its total economic output, while unemployment was estimated at 26.7% during 2017 (Caryn et al., 2018).

4.2 Housing Situation in the City of Cape Town

In Cape Town, formal housing accounts for 80.4% of total housing, while informal housing accounts for 19.6 % (Caryn et al., 2018). The supply of affordable housing for lower-middle income households in the Cape Town inner-city areas is minimal, owing to a number of constraints, including the limited supply and access private finance (Western Cape Government, 2015). One condition attached to the supply of newly built houses on the market is that the price a household is willing and able to pay must be greater than the cost of building the same house. According to the Cape Town Housing Market Report-2021, As of 30 June 2021, the Deeds Registration included 780 263 residential properties, accounting for 66% of all residential properties in the Western Cape (CAHF, 2020). This analysis splits the whole residential property market into five categories based on value (See Figure 4.1): (1)The entry market (green on the pie chart,16%) - properties worth R300,000 or less; (2)the affordable market(blue,18%)-properties worth R300,000 to R600,000; (3)the conventional market (orange,13%)- properties worth R600,000 to R900,000; (4) The high-end market(pink,10%)-properties worth R900,000 to R1.2 million; and (5)The luxury market(red,43%) - properties worth more than R1.2 million. (CAHF, 2020). According to the research done by Urban Real Estate Research Unit (URERU, 2018), a household's ability to pay for a house depends on its income, creditworthiness, and the value of any existing assets. The housing gap market for lower middle-income households is covered in full by the affordable market and a lower portion of the conventional market.

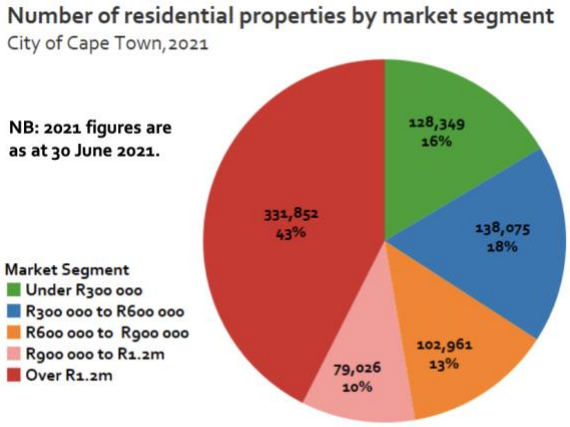


Figure 4.1 Number of residential properties by market segment

Source: (CAHF and Citymark ,2021).

To put this into perspective, a household with a monthly income of R20,000 can afford a house of around R500 000 or a monthly rental of approximately R5 000. This is considerably lower than the average and median housing values of around R1 250 000 and R775 000, respectively. Rough assessments indicate that between 50 and 60% of the city's housing stock is valued at or over R500 000. Similarly, an entry-level market-supplied house costs around R400 000 (McGaffin, 2018).

The residential property market in Cape Town is a significant asset for the city. At the end of 2015, the 703801 residential properties in Cape Town were valued at R807 billion, the majority of this value (77%) was held by owners of property valued at more than R1.2 million: by the end of 2015, one-third of the properties in Cape Town represented just over three-quarters of the value. 703801 residential properties are dispersed among 770 neighbourhoods with values ranging "as much as R25 million and higher, to as little as no value at all" (RSA, 2018 p.8). However, the ratio is inverted for owners of the lowest-valued homes in the city. In this instance, properties worth less than R300,000 made up around one-third of the total inventory but just 3% of the total value. This disparity is a significant obstacle for the municipal government as it is expected to develop property markets that serve all people, and the city as a whole (RSA, 2018).

Housing Market Demand and Segmentation Based on Income in Cape Town

Demand: Households				Supply: Residential Properties				Shortage/Surplus[1]	
Income Category		No. Households	% of Total	Value Category		No. Properties	% of Total	No. Properties	% of Total Stock
R 0		146 517	13.71%	R 0		0	0.00%	**-146 517**	**-22.02%**
R 1	to R 400	29 373	2.75%	R 1	to R 11 514	0	0.00%	**-29 373**	**-4.41%**
R 401	to R 800	42 418	3.97%	R 11 515	to R 23 028	0	0.00%	**-42 418**	**-6.37%**
R 801	to R 1 600	113 277	10.60%	R 23 029	to R 46 055	0	0.00%	**-113 277**	**-17.02%**
R 1 601	to R 3 200	170 824	15.99%	R 46 056	to R 92 111	48 354	7.27%	**-122 470**	**-18.40%**
R 3 201	to R 6 400	154 427	14.45%	R 92 112	to R 184 222	52 021	7.82%	**-102 406**	**-15.39%**
R 6 401	to R 12 800	139 348	13.04%	R 184 223	to R 368 443	131 106	19.70%	**-8 242**	**-1.24%**
R 12 801	to R 25 600	126 625	11.85%	R 368 444	to R 736 886	172 874	25.98%	**46 249**	**6.95%**
R 25 601	to R 51 200	92 860	8.69%	R 736 887	to R 1 473 772	160 284	24.08%	**67 424**	**10.13%**
R 51 201	to R 102 400	38 018	3.56%	R 1 473 773	to R 2 947 545	70 919	10.66%	**32 901**	**4.94%**
R 102 401	to R 204 800	9 748	0.91%	R 2 947 546	to R 5 895 089	22 880	3.44%	**13 132**	**1.97%**
R 204 801	and up	5 066	0.47%	R 5 895 090	and up	7 075	1.06%	**2 009**	**0.30%**
TOTAL		**1 068 501**	**99.99%**			**665 513**	**100.00%**	**-402 988**	**-60.55%**

Table 4.1: Analysis of the Cape Town Housing Market

Source: McGaffin and Kirova (2016 adopted from (Hogarth, 2015).

According to CAHF (2013), in 2013, 6 million residential properties were registered in the Deeds Registry, of which 40% were valued at less than R 500,000, making them affordable to households earning less than

R 16,000 per month with 100% bond financing. Furthermore, statisticians estimated that 88% of South Africa's population earns less than R 16,000 per month, confirming that a significant housing shortage needs to be addressed urgently.

Based on the 2011 census conducted by Stats SA, 502,394 households in the City of Cape Town were surveyed, and it was estimated that nearly half of those households (47 per cent) have a monthly income of R 3200 or less, including 14 per cent of the total households (146,511 households) with no income at all (Hogarth, 2015). It has indicated remarkably high levels of poverty and, thus, reliance on government assistance to access housing. Only 272,306 (25%) households had monthly incomes over R12,800, leaving 293 768 (27%) with incomes between R3,201 and R12,800 per month (Hogarth, 2015). These three submarkets can be roughly categorized as follows: (Hogarth, 2015).

- "Subsidy": households with incomes below R3,500, eligible for fully subsidized housing based on income);
- "Gap": households with incomes between R3,501 and R15,000 pm, too high to qualify for full subsidies but insufficient to afford the least expensive new homes at the private market;
- "Market" households with income above R15,000 pm, although this may be shifting upwards).

McGaffin and Kirova (2016), have advanced Hogarth study's of Cape Town housing market and suggested three housing market drivers for conducting a "comprehensive and nuanced submarket analysis" while avoiding simplified market segments such as subsidy, gap, and market.

1)Demand: It is critical to track the demand drivers based on income category, the number of households in each income band, and the corresponding portion of the households (percentage of Total)

2)Income ranges classify the supply of residential properties and the number of housing units expected to be required in the future, as well as the corresponding proportion of the total supplied

3) The shortage /surplus for each specific submarket

Based on the results of the table above, it is evident that there is a severe shortage of housing units available for households with incomes ranging from R 0 to R 12 800, while the overall number of housing units shorting on the market remains relatively high (-402 988 equal to -60.55 per cent). Based on those three housing market drivers in the table above, in terms of the gap market, the estimated demand for households in the income category can vary between the two bandages: (R3201 to R6400) and (R12 801 to R25600). In terms of the supply in the gap market, it can be ranged between two segments: (R 92112 to R184 222) and (R368 444 to R736886). In terms of the shortage or surplus, it's logical to combine the 3 segments together (rows 6 to 8): (-102 406) + (-8242) + (46249) = (-64 399) properties, or (-15,39-1,28+6,95%) = -9 72%. It is approximately -10% of the total shortage on the market. It is evident that the need for affordable

housing in a gap market has also to be considered in governmental housing programs to address that shortfall, based on the figures presented above.

The fact that just a tiny percentage of Cape Town's population is served by its residential property market poses significant obstacles to the municipality's goals of housing affordability and inclusive growth (RSA,2018). According to the City of Cape Town, both the new construction and resale markets are constrained, with activity levels favouring high-priced houses over those affordable to the city's middle class and low-income earners. Delivery obstacles include costly land, infrastructure, finance, and building costs; inadequate market targeting in terms of affordability; and delays in meeting statutory development criteria (RSA,2018). The resale market is constrained by administrative barriers in the transaction process, which disproportionately affect the poor and access to funding, particularly in entry-level market areas. Therefore, the city is motivated to extend its locational benefits to all of its residents so that it cannot only meet its constitutional obligation to ensure progressive access to adequate housing but also leverage the value of the property asset for the benefit of all residents and support the economic and spatial transformation goals (RSA,2018).

4.3 Pattern Matching Analysis

The table below summarises the pattern-matching analysis for the literature review and findings. The presentation of the findings below was categorised based on the themes highlighted in the literature and the corresponding stakeholders involved in the process of gap housing delivery. These themes and sub-themes were summarised in the research conceptual framework presented at the end of Chapter 2 (Figure 2.24). This pattern-matching analysis is used to identify the critical existing patterns from both (the literature review and the findings) that will be taken as the challenges constraining the implementation of PPPs as a housing programme and as a basis to stimulate the provision of affordable housing opportunities in inner city areas. This pattern analysis also seeks to eliminate the subjectivity and biases linked to each role participant and identify the common limiting factors accounted for in providing affordable housing in a gap market.

Participants/Stakeholders	Key Pattern	Secondary data (literature review)	Primary data (Findings)
Public Sector **Developers &Investors** **Financial Institutions** **End-user**	**Housing Affordability**	**Financial Implications** -Profitability/Return on Investment (ROI) -Development cost -Delivery with Budget -Subsidies and Incentives -Delivery with risk sharing	**Concept of Affordable/Gap housing** **Risk Transfer\ Sharing and Partnership with Other Institutions** -Affordability in a gap housing market -Gap housing supply in the City of Cape Town and reasons(land is too expensive, finance, end user finance, Risks, construction issues) - Increased stakeholder participation

		Investment and Incentives strategies -subsidies, cross-subsidies, or incentives **Financial and non-Financial Measures** -Mortgage finance accessibility -More policies **End-user:** -End-user acceptability -Resale Ability -Loan affordability(access to finance) - borrower's credit history - Desired Quality delivery -Development site/Location -Maintenance cost	**Constraints and Financial Implications** -Financial and economic viability -High demand -High cost of finance (access to Finance) -High construction cost - High cost of land (land availability) -Equitable funding **End user:** Loan affordability(direct affordability) Maintenance cost -local community benefits from the gap housing delivery projects - borrower's credit history - Sales and leasing capabilities **Incentives and Subsidies** -PPPs' improvement and performance (Financial and non-financial) -Tax rebates -elimination of planning restrictions, such as excessive parking… requirements **Lack of Innovation**
Public Sector **Developers &Investors** **Financial Institutions** **End-user**	**Institutional Capacity and Resource Constraints**	**Constraints and delivery barriers** -Population Growth(Rapid Urbanisation and migration) -Lack of expertise - Lack of capacity -Delivery with Risk sharing -Provision of Incentives - Limited Supply Partnerships with Private -Nimbyism -Constrained resources -Costly land ,infrastructure, finance, and construction costs **Management and Maintenance** **Policy Interventions:** -Ecosystemic Intervention (via policies, public institutional intermediation, etc.) – -Project level Intervention (land, infrastructure, and development rights). **Provision of Public Resources**	**PPPs Scheme Management Capacity Concerns** **NIMBY Effect** **Policy Framework** Government policy interventions and successes are limited. Instruments to improve the feasibility of affordable housing in inner-city area. -Urban Development and Housing Policies: (Housing Programmes, Spatial Targeting , Land use management (By-law, zoning, Value capture). -Public Sector Financial Incentives(Tax Incentives (UDZ tax; direct financial incentives (e.g., housing subsidies)]. -Public Sector Infrastructure (Investment(utility services, BRT); securing land and buildings (e.g., land banking). -Private sector Financial Investment

			(available capital, property market and design concepts, Investment on Return/Profitability.
Public Sector **Developers &Investors** **Financial Institutions** **End-user**	**Suitability of PPP** **(Typical Partnership Agreement)**	**Typical partnerships agreements:** -PPP Definitions -reasons of PPP -Different types of PPP contracts and Risk transfer in A PPP Scheme **Experiences with PPP** **Applicability of PPP** -International comparison -Experiences with PPPs for housing -Critical success factors for PPPs **Contextuality**	**Concept of PPP** Relevance of PPP and Role of each stakeholder in a PPP scheme(see section 4.5 and 4.5.1, above) **PPP framework/ Forms of PPP that exist in South Africa** **Effectiveness of PPP**

Table 4.2: Pattern-Matching Analysis

*Source: Author's construct**, 2023***

4.4 Inner-City Gap Housing Affordability

Most policy interventions related to planning and housing (municipal and provincial spatial development framework policies) advocate the provision of higher-density, more affordable residential housing in well-located areas, such as the inner-city areas (RSA-TDA, 2018). However, according to Massyn et al. (2015), these policies have been largely unsuccessful in achieving these outcomes because they do not take into account urban economics and fail to address the value-versus-cost tension inherent in providing such housing. Massyn et al. (2015) asserted that the housing problem in Cape Town is multi-dimensional and nuanced, but it typically has three defining characteristics:

(1) There is a substantial backlog in the supply of housing units;

(2) Houses are frequently built at densities that are insufficient to provide the necessary thresholds to sustainably support city operations; and

(3) Many housing settlements are poorly located with regard to economic opportunities and other social services.

These characteristics are common in many South African cities, but they are especially pronounced in Cape Town, where the cost of well-located lands, such as that found in the inner-city, is exceptionally high. The source of this problem is primarily twofold: (1) apartheid 'planning "segregated" the city and promoted a

fragmented and sprawling city; and (2) the design of the current state-led housing program, which aims to address the backlog of affordable housing, often results in poorly located settlements (Massyn et al., 2015).

The housing subsidy scheme, as currently designed and planned, is inadvertently becoming an essential factor in the population dispersion within the metropolitan areas of South African cities because: 'the more isolated is the location for subsidised housing projects, the lower the price of land and, consequently, the more financially feasible is the project, all other cost parameters being practically fixed by regulations or practice' (Bertaud, 2009, p.1)

It was argued that the above strategies have failed to produce significant well-located inner-city housing. They are not based on a solid understanding of urban economics and do not address or resolve the economic or financial constraints that prevent such housing from being built. According to Massyn et al. (2015), for housing to be built on a large scale in the inner city, two conditions must be met:
(1). Construction and development costs and profits for new housing must be greater than the final value of that housing; and
(2). Housing must be targeted at households with low-to-medium incomes, which constitute a large percentage of households in a city.

Developers estimate that for every ten clients they refer to lenders to seek mortgage financing, two are refused due to unfavourable credit histories and five are rejected due to affordability limits. As a result, just three out of ten applications are accepted and authorized. Due to the fact that access to financing is still the most significant obstacle to the provision of housing, and as the economy transforms and lower-middle income consumers face new challenges with creditworthiness and affordability, new innovative solutions have yet to be implemented. A new development in Cape Town's inner city is estimated to cost between R 15,000 and R 20,000 per square meter (Massyn et al., 2015). The Al+hdc defines affordable housing as housing with a price tag of less than R 500,000 (Al+hdc, 2010). It means that to obtain 45 square metres of space for R 500,000, one will have to build at a rate of about R 11,000 per square meter, which is well below current levels of development. For the value to exceed total costs, the required selling price per unit would be estimated at R 800,000 at current construction cost levels, which is approximately 60% higher than the price defined by Al+hdc as affordable housing, (Massyn et al., 2015).

For gap housing , the findings advised that the private sector be included in the development of affordable housing. However, other interventions should be examined to increase the viability and affordability of affordable housing units in city centres (Massyn et al., 2015). According to Development Action Group (DAG) (2021), to bridge that gap, they suggested using urban land-use policies that incentivise (or force) developers to incorporate affordable units. Inclusionary Housing (IH) refers to the affordable units that result in new developments that would otherwise consist exclusively of market-rate housing. This kind of IH is based on land value capture. It uses a portion of the increased land value from public regulation changes and more development rights to finance the resulting housing (DAG, 2021).

On this question, most respondents defined affordable and gap housing as households earning between R 3,500 and R 22,000. Three respondents mentioned that they can assist someone earning up to R 22,000. The respondent DHS-01 said that 'in a government context, there are two programmes for affordable/gap housing that fall into this bracket, we cannot assist someone who is earning above R 22,000, our breakage, our brake off / cut off is R 3,500 to R 22,000 (social housing is R 1,500 to R 15,000, FLISP is R 3,500 to R 22,000). The respondent NHFC-02 answered: 'the market that we typically serve includes households earning a combined monthly income, between R 1,500 and R 22,000'. Respondent SRD-04 said that in their institution, the gap market is known as the 'redlined zones market' in which around 2–3 million households fall between the cracks of housing delivery. SAARDA serves and promotes a critical public interest by delivering within the gap market and in what is deemed a higher risk segment. The respondent APD-05 said, 'when we are talking about affordable housing, we are talking about the house estimated at R 700,000. Social Housing refers to rental units for households with an income between R1500 and R15000, ownership, includes the Finance Linked Individual Subsidy Programme (FLISP) for households with an income between R3501 and R22 000," said respondent WCGCT-08. The successful applicants can be qualified for a subsidy with the amount varied between R 27 960 to 121 626": said respondent ABS-10. When the respondent was asked if the City of Cape Town or Western Cape Province have affordable housing for all people who are classified as being in the category of gap housing or who earn below R22 000, the participant answered "no" without any hesitation and explained that the reason is that "the demand is higher than the supply."

The households with an income bandage between R 3501 and R 22 000 are eligible to apply for housing subsidies through the City of Cape Town housing department. Based on the applicant's monthly income, the one-time subsidy amount can vary between R 27 960 and R 121 626. The. The subsidy given decreases the initial loan amount, which makes the monthly payments more affordable. The FLSIP subsidy/gap housing program was developed by the Department of Human Settlement to provide sustainable and affordable solutions for people to acquire their first house through housing subsidies. It was reaffirmed by the participant ABS-10 that commercial banks financing affordable gap housing through FLISP. A respondent asserted that PPPs make projects affordable, and this extends to this study in terms of gap housing delivery in inner-city areas. The respondent COCT-07 noted: "when it comes to affordability of the end -user (tenants), it is always complicated in circumstances where the salary stops because, for example, of losing the job or originating from other conditions that prevent the end-user /tenants from meeting their obligations to the banks or other financial institutions in charge".

COCT-07 said that "affordable housing is a very broad term, and it means something different to different people and different sectors, and it's not the same as affordable housing as defined by the City or through public policy. Although the state set this upper limit income at R 22 000, this can be as high as R 30 000 in the private sector. The participant mentioned that gap housing in terms of social housing is for those earning R1 850- R 22 000 per month. COCT-07 from the City of Cape town noted that there are many social housing projects in the city, for example in Maitland, Pinelands (Conradie Park), Belhar, Retreat and Goodwood.

The critical challenges in providing affordable gap housing are related to private sector focussing on the highly profitable top end of the market, the public sector concentrating on the bottom end, with market and public failure for those not adequately served by either. The respondent DHS-01 said: 'we face financial constraints...the land is extremely very expensive, and because the subsidy has not increased since 2018, the financial model for the gap market doesn't necessarily work in terms of construction cost. This has, however, recently been by reviewed by the national department during last year, and we understand that the construction subsides will be increased. A new policy is being formulated on the provision of incentives for the construction when developers apply for funding to make these projects work. Another variable that will make projects more feasible is having credit beneficiaries, i.e, upfront verification of end-users/tenants qualifying to buy or rent the house.

Participant WCGCT-08 identified the lack of availability of well- located land and the relative high costs of private land as the most critical constraints in the provision of gap housing in Cape Town. When the government is committed to releasing it for future developments, including affordable housing, the municipalities face the challenges of " Not In My Back Yard" behaviours mentioned by the respondent as the "NIMBY Effect" and also face the issue of the presence of informal settlements or illegal land and building occupants on the intended. The government has then a legal obligation to expend significant effort and resources to relocate the families or residents who have lived on the site for many years.

When the participant was asked for what can be done to overcome the critical challenges facing gap housing, the respondent WCGCT-08 answered as follow: " we need integrated developments projects with different income groups in close proximity to each other …..houses units need to have a similar construction and finishing". COCT-07 noted, "every project is unique and has its own contextual financial constraints and when you add those into a mixture, it changes the way in which the project will get designed and implemented , and so it makes it more complicated and more complex because you have to be very clear, critical and considered with regard to the procurement and the different policies that are involved in terms of subsidies and financing for beneficiation. So, it's complex because it isn't straight forward, and it isn't a linear process". According to COCT-07, other constraints include "how do you release the land, how do you procure the developer and how do you appoint a contractor. Sometimes it's just the City, which is developing who then appoints a contractor, and so that's different to get in a developer, especially often with gap housing in well located areas. There is a lot of nimbyism as well as other community traits in all situations that slow down the project. Objection occurs through the land use planning application processes and project time frame gets drawn out. Sometimes land gets occupied and hijacked and then can't be developed because lengthy and complex legal processes which you don't have control over and this impacts on the timelines"

With regard to NIMBism, COCT-07 responded that "people try to protect their investment because they think that the new development coming in is going to lower the existing property values in the area. So it

is that fear that people have, but it's also because they don't understand, for example how well designed and different housing typologies can increase property values. "Sometimes they think gap or social housing is not good, they think it's not managed well. However, there are countless examples of rental properties that are managed very well and so they need to be educated on these examples in the market. Gap housing is not for people who are not willing to pay, it's rather for people that can afford and that are willing to pay and are able to take care of their properties" (COCT-07). So it's about educating everybody on the quality of the development that they can add value and then it's also about assimilating the new residents moving in to understand how to take care of a property and have pride in contributing to the area. At the end of the day, citizens have to take responsibilities for their own neighborhood (COCT-07). There are numerous negative perceptions about the creditworthiness of the lower-middle income group in need of affordable housing. The participants in the affordable and gap housing market serve an income bracket that has difficulties accessing and obtaining finance.

Another concern is that affordable housing is not being produced in sufficient quantities. The affordable housing industry participants require a cohesive front to confront the particular issues they face. While the affordable housing market involves distinct problems for housing market players, there has been minimal innovation in terms of product delivery. Therefore, the role players seek to leverage their collective efforts to advance innovation in delivering affordable housing (SRD-04).

4.5 Institutional Capacity and Resource Constraints

Government policy interventions and successes are limited as the affordable gap housing sector has been largely ignored by policymakers with limited action. For example, respondent SRD-04 said that a critical housing product is being delivered by the members of their organisation, but there has been little or no policy backing or successful policy intervention. The respondent further added, 'our organisation aims to raise the profile of this sector and its specific needs among government and financial institutions, and these include the following:'.

- ◊ Unfriendly land development laws and other related regulations.
- ◊ The required statutory land development processes such as development applications and associated environmental and heritage processes in order to convert the inner city or well-located land into property with residential rights, are time-consuming, bureaucratic, deceptive, and expensive. As a result, private developers have to deal with statutory land development processes that significantly impair their ability to deliver affordable housing profitably.
- ◊ The land is scarce and expensive. The government's proactive and well-planned/located land release for affordable housing is limited. As a result, participants (private developers) must compete with developers active within the more affluent/higher-end market.
- ◊ Various spheres of government are dealing with capacity constraints. Local governments have a severe shortage of infrastructural capacity, with slow processing of land development applications at both the local and provincial levels.

- ◊ High and ever-increasing construction costs. Unjustified and rapidly rising building costs have a negative impact on the delivery of affordable gap housing. In addition, private developers are unable to effectively negotiate the costs of construction supply inputs and lack bargaining power when dealing with building suppliers.

Both respondents APD-05 and KPD-06 suggested that the financial institutions in charge can make it easier for developers for accessing the credit. For example, the respondent APD-05 suggested that the credit can be made available to developers, and to make the project feasible for affordable housing delivery. The developers have to participate from the beginning of the project till the end, which will, in turn, depend on the contract terms and the type of partnership that both parties have adopted. The respondent further added, 'the challenges that we are facing are within the budget that we are going to work on, such as how much the budget the government is willing to offer or what kind of support the government is willing to provide because, at the end of the day, it is also a business, the company must be able to make some money to sustain itself'.

As it was stated above by the respondent COCT-07, the City of Cape Town as a governing body, is also facing the following constraints and enablers in affordable-gap housing delivery: bridging the gap between legislation and policy aims, including a land release for mixed-use market development projects; and the city is lacking a sustainable solution to "NIMBYism" behavour.

In releasing land for development, there is a gentrification issue in which occupants of privately owned houses resist relocation to far away locations. The occupants oppose the relocation as they value being close to public amenities and jobs in well-located areas, while some belief that it diminishes social capital by affecting the history and customs of the community neighbourhood. As discussed by the respondent COCT-07, the City of Cape town intends to release the land for development. However, it is delayed due to unviable income bands, the social housing grant quantum, and the presence of informal settlements on sites, where the occupants' families have stayed with the land with their families for too many years, sometimes even decade (s). In inner city areas, the insecurity of tenure and the growth in property prices are also factors that contribute to the scarcity of housing. The housing demand is much higher than the supply mainly due to inadequate supply that are constrained for the reasons discussed.

The literature reviewed that the public sector has a limited capacity for indebtedness. As a result, it is required to encourage private developers to participate in housing delivery for social interest, overcoming a model in which the public sector is the sole provider of affordable housing for low and middle income earners. The PPP operation can then be established to increase housing supply by leveraging the private sector's capacity, including its ability to borrow from other private and public financial institutions. Private developers have significant financial capacity and the ability to raise financing, but they have primarily catered to the housing needs of upper-income households. Most affordable gap housing is constructed by state entities that cannot produce it at the scale needed. This is where the participation of the private sector

becomes critical for the government, which lacks the liquidity and capacity to implement schemes to provide affordable housing for all.

As the government lacks the capacity and expertise and has limited resources, it becomes necessary for the state to collaborate with the private sector and solicit professional expert inputs from the private partners who then become accountable for delivering the affordable housing project's. The public sector can leverage private-sector project management and expertise. In the case studies presented for international application, it was also remarkable that there are some PPP projects involved affordable housing delivery, The government can therefore take on the role of an enabler rather than an implementer by identifying private sector firms to carry out development.

4.6 Suitability and Sustainability of Public Private Partnerships

Respondent DHS-01 noted that the City of Cape Town is currently busy with the inclusionary housing policy, which will give an opportunity to provide more affordable and gap housing in inner-city areas of Cape Town. So it is in this context that once approved, PPPs can be considered as a framework to facilitate the provision of affordable and gap housing in inner-city areas. The next section will discuss different types and structures of PPP that have been used in South Africa and draw on lessons from elsewhere as discussed with the literature review.

4.6.1 Types of Public–Private Partnerships in South Africa/City of Cape Town

NTU-03 said, 'the major portion of PPPs are used to supply infrastructure services, such as transportation and accommodation, health, energy and other sectors. There are few development projects in the supply of affordable housing. A document published by National treasury on PPP projects in operation, at the end of 2019, and it contains a list of 31 completed PPP projects in South Africa since 1998 when this type of partnership was introduced. The cumulative value of all projects was estimated at R 65.3 billion. There are numerous types of projects within the PPP model, depending on the contractual agreements involved, including the following:

- ◊ Design, finance, build, operate and transfer (DFBOT) projects
- ◊ Design, finance and operate (DFO) projects
- ◊ Design, build, operate and transfer (DBOT) projects
- ◊ Equity partnership projects
- ◊ Facilities management projects.

These projects include 23 DFBOT projects, three DFO projects, three DBOT projects, one equity partnership project, and one facilities management project among the 31 PPP initiatives. These include hospital, transportation, road developments, as well as tourism and head office accommodation. The projects were financed in part through equity, debt, and, in some cases, government capital contributions.

Most of these projects are now operational, with a handful having concluded their duration. Project durations have been extended in some circumstances.

Both the literature and the findings have suggested different types of contracts and risk transfer in a PPP scheme. The literature review revelaed that DBFMO and DBOF are the most frequently used internationaly in other building types, not housing delivery. This pattern confirms the findings, which have also indicated that DFBOT, DFO, and DBOT are the most used models of PPP in South Africa. The results showed that PPP is still new (at its incipient stage) in South Africa in the delivery of affordable gap housing. Respondents suggested that South Africa needs to learn from the international application of PPP. In this pattern, it is noted that there is a transfer of duties and risk sharing on both sides. The public sector is committed to participating in the project's design phase, building it, and transferring it to the private sector for management.

In housing delivery, the mechanism of PPP succeeds when private financing and management are available. The DB, DBFO, DBFM, and BOO models are recognised as the most usable in housing delivery through the PPP mechanism. This pattern was also remarkable in the case studies presented for the international application of PPP in providing affordable housing for low-middle income households. All partners agreed on their contributions and shared the risks and profits from affordable housing through the PPP schemes. In addition to that, once the project scope is defined and most decisions are made, it is essential for the government or other institution in charge to invite several private developers to participate in a transparent and competitive procurement process to assist with the project's design, financing, and construction. This pattern indicates that the contract agreement between partners must clearly state each partner's financial and legal responsibilities. Both findings and literature also show that it is crucial to incorporate control measures into the agreement to ensure that the private partners (developers and investors) fulfil their contractual obligations.

The respondent DHS noted 'we only have private social housing institutions, we do partnership with them together with the City of Cape Town to providing social housing projects, '…. at the moment, affordable and gap housing delivery projects are within only with private developers who are currently doing that, in inner-city areas, nothing yet for affordable and gap housing. The City's draft Inclusionary Housing looks at Spatial Planning and Land Use Management Act. The implementation of inclusionary housing policy framework is aimed at motivating developers to bring new affordable developments to inner-city areas. Respondent WCGCT-08, who is responsible for affordable and gap housing in Western Cape, defined PPPs as " the cooperation between government and private sector institutions. This respondent said, " we do not have many PPPs in affordable housing delivery; for some housing developments projects, the most form of PPP used is BOO(Build-Own-Operate).

Respondent COCT-07 is responsible for land reform, social and gap housing in the City of Cape Town. The respondent explained that PPPs is very broad , and elaborated that, when talking about the PPP that

existing in South Africa , it's better to be specific and talk about the mechanisms of PPP exist for affordable housing. "There are ways in which they can be, obviously there is always a developer, a construction team and then the public sector (local municiplality, province and national), for any given project. They will be involved in different ways, not always the same but some ways can include the instances where the city release a piece of land to a developer to build, to design, develop and construct , and owned the houses".

The Respondent from Human Settlement: Policy and research in the City of Cape Town (COCT-07) said that with the development of affordable housing, the city is involved, the developer/ consultant team is also involved, sometimes the money will come from the city, sometimes the money will also come from the province and sometimes will come from the national province and the city, it depends on the project. Sometimes a developer will have a piece of land and already come up with the housing scheme and then the City will make a contribution in terms of may be bulk infrastructure. o there is also partnership in that way. Sometimes there is a project where there is a national governmemt owned land with a developer putting equity and get finance and the city also make contribution in terms of assisting the process to go forward and manage the contribution in any format /bulk infrastructure and sometime. The province may also assist with some subsidies and be involved in the required approval processes.

4.6.2 The Effectiveness of Public Private Partnerships.

The majority of the participants confirmed the effectiveness of PPP in providing affordable gap housing. DHS-01 noted that PPP is effective in raising funds and increasing the capabilities from both the public and private sides". Private developers, they are looking for funding and the mechanism of PPP can be an effective way to pool together resources from both sides and maximise the feasibility of the project'. A private sector (APD-05) responded, 'it is a good option to work with the government and this can assist us in developing affordable houses, based on some agreements. KPD-06: observed that "…the partnership with the public sector can effectively facilitate all of our projects". In terms of the effectiveness of the PPP, "…it is complex and very difficult due to the financial input required by the private party to ensure affordable gap housing delivery is feasible". said respondent WCGCT-08. The participant agreed that PPP is valuable because of the constraints related to housing affordability caused mainly by capacity and limited resources. The public sector participation in PPPs can transfer some of the risk and responsibilities to the private partner. Participant COCT-07 stated that "the PPP approach is beneficial because it increases the availability of finance sources to supplement the public sector's subsidies and incentives and provides an innovative strategy for providing affordable gap housing to households in need. The use of the Private sector's expertise and resources can make the PPP model more effective.

Reasons for Effectiveness of PPP

The findings matched the literature regarding why the public sector must collaborate with the private sector in affordable gap housing delivery. The literature has suggested that the three main reasons the public sector has to engage in PPPs are to stimulate private capital investment by supplementing public resources, increasing efficiency, using available resources more effectively, and reforming sectors through

reallocating roles, incentives, and accountability. The findings have confirmed this pattern, showing that all respondents believe involving the private sector in delivering affordable housing is essential because doing so is the only way to move forward. It is crucial to have the private sector involved; there is no other way to do it. Some of the reasons the private sector has to be involved in the process of affordable housing delivery include:

- Improving the financial input and making affordable housing projects more affordable.
- Incapacity and limited resources available to the public sector create the necessity to involve the private sector to provide housing for lower middleincome earners, so using the private sector's expertise and resources can make the PPP model more effective.

Applicability and Experiences with PPP

As using PPP in South Africa for affordable gap housing delivery is still at its incipient stage, it is advisable to learn from international experiences where PPP is used to provide affordable housing. In this regard, the the literature and other engagement with role players, as well as research done by Ritika Batra, in Europe (on the use of PPP in providing affordable housing, concluded "seventy per cent (70%) of the forty professionals who answered the survey had good experiences with PPP projects, while 5% reported exceptional experiences" (2020, page 1129-1131) (see Figure 2.10). The primary data in South Africa revealed that PPP is mainly used in other building sectors and there are no affordable and gap housing projects in inner-city areas, based on a PPP. Among the 31 PPP initiatives in other building sectors, are 23 DFBOT projects, three DFO projects, three DBOT projects, one equity partnership project, and one facilities management project. These non-residential projects were partially funded through private equity, debt, and, in some cases, government capital contributions. In this pattern, the case study (research conducted by Ritika Batra) concluded that having a high or significant percentage of positive experiences with PPPs in housing delivery for low and middle-income earners. In that research, most participants (89%) agreed that PPP is a viable strategy for housing delivery and should be explored. This pattern was also found with this research findings, where 100% of all participants consider PPP the best way to deliver affordable housing in a gap market and can effectively facilitate all affordable housing-related projects.

4.6.3 Critical Conditions to Consider Before Financing a PPP Project

As revealed from the literature, is advisable to consider three critical factors when analysing the feasibility of implementing any public-private partnership (PPP) model. The first factor is the country's context, which includes policy, legal, fiscal, and institutional considerations. The second factor is the city context, which involves planning legislation, development rights, and property taxes. Lastly, the site context is essential, encompassing location, developability, infrastructure, and marketability. Hence, by the guidance provided by the World Bank Group (2020), it is imperative to possess a multidisciplinary and integrated skill set to effectively align housing public-private partnership (PPP) strategies.

The question, what are the critical conditions to consider before financing a PPP project, was explicitly addressed to NHFC to explore more on the criteria that are taken into consideration. NHFC is one of the major financial institutions responsible for facilitating and bringing innovation in the affordable housing

finance industry and is one of the several development finance institutions established by the South African government to address the country's socio-economic difficulties in a sustainable manner. Respondent NHFC-02 answered that 'the primary criterion is earning between R 1,500 and R 15,000, despite the fact that NHFC targets households earning between R 800 and R 22,000 monthly. There are other qualifying criteria and essential supporting documents for granting NHFC home finance'. The NHFC does not provide direct financial assistance to beneficiaries but rather indirectly through partnerships with a variety of organisations (including social housing institutions, property practitioners, [which may include developers or landlords], private lenders / retail finance intermediaries / banks) that are interested in assisting the NHFC in meeting its objective of providing affordable housing. Entities requesting funds for mixed or integrated housing projects must ensure that at least 30% of the units will fall under NHFC's designated target market, which is affordable and gap market.

The respondent NEK-09 explained the decision-making process or conditions the bank follows before financing. The respondent was asked how the decision-making is taken if it is the bank which decides the amount to be given as a subsidy or if it's a municipal housing department. "The department of housing will only give you advice on what your subsidy will be, and then from there, you can bring the approved document to the bank, so you can use it either as a deposit or you can use it as a part of your registration fees, or you can use it to furnish the property. Therefore, it's not up to the affordable housing department to decide, they will decide on what is the worth of the subsidy they will give you. However, the bank will still have to decide if the applicant qualifies for that bond, whether you will be able to afford it. The main criteria or conditions that need to be fulfilled are: (1) they must all be employed, and then (2) the credit history must be favourable, with no arrears (3) and the other requirement the bank must evaluate is affordability." Respondent NEK-09 noted that, "with the salary of 22 000, the monthly instalment of R6 600, with the prime interest rate of 10.5%, the loan required is R 699 018 and the instalment can't be above R 6 600. However, finding a property for that amount for example in inner city areas is difficulty, as it is under the minimum or the lowest housing price in well-located areas.

ABSA's strategic plan to assist in housing delivery is to partner with other institutions to increase housing finance. For example, the partnership with IFC was designed to help alleviate South Africa's massive affordable housing gap, estimated to be 3.7 million houses. According to ABSA data, affordable housing solutions are frequently too expensive for households in the gap market due to high development costs; limited access to funding; high levels of inequality; poverty; and employment instability. According to the respondent ABS-10 and NEK-09, the following are the primary criteria/conditions that banks follow in order to qualify for gap housing Financial Linked Individual Subsidy Programme:

- ◊ Earning between R 3 501 and R 22 000 each month
- ◊ The applicant must be a South African citizen or have a permanent residence status.
- ◊ It must be the first government-funded housing subsidy, If the applicant already has one, he is not eligible to apply.
- ◊ The applicant must not have previously owned a fixed residential property.

- ◊ The applicant must have gotten preliminary approval for a home loan from an accredited South African financial institution.
- ◊ The applicant must be at least 18 years old and capable of entering into contractual agreements.
- ◊ In addition, the applicant must be married or cohabiting, or single with financial responsibilities/ dependants

The respondent ABS-10 said that, as a condition imposed by the Western Cape government, Department of Human Settlement, if the applicant's house loan for gap housing is rejected/decided by the bank, the applicant would be unable to obtain the FLISP subsidy. Households in the R 3 501 and R 22 000 per month income band often find it difficult to qualify for housing finance, which means that individuals earn too little to qualify for mortgage finance but earn too much to qualify for government-subsidised housing. The respondent NEK-09 added that, even if the applicant for a subsidy (FLISP) is not qualified, the bank has to progress with its credit and affordability assessments on without taking the subsidy into consideration, as explained above.

According to COCT-07, the prerequisites for selecting a private partner in the supply of affordable housing depend on the private participant's experience and compliance with the municipality's implications, such as environmental sustainability or other municipal regulations and policies. In addition, a prospective private developer must be a Social Housing Regulatory Authority member to meet the requirements for competing in the bidding or tendering process where the best affordable housing development project proposal is selected based on the City or municipal's assessment framework

4.6.4 Investment and Incentives Strategies

As found in the literature review and the findings, the main motive of the private sector in housing delivery is profitability. It was evident that the private sector (developers and investors; financial institutions including banks) is unwilling to provide housing for low-income earners, unless underwritten by the state. Banks do not find it appealing to deliver inclusive and affordable housing, they prefer to target the highest income brackets and do not put much effort into the middle- and low-income groups. So, it's up to the government to develop strategies to encourage the participation of the private sector in gap housing delivery through the provision of incentives and subsidies. A key priority for the private sector in partnership is to manage the working relationship with the local government to ensure that it fulfils its obligation to waive property and other fees for providing affordable housing units to keep the housing costs low. In some international applications of PPP in affordable housing explored in the literature, subsidies for payments and rates are funded from the state budget through the housing departments in charge of subsidy programs, investments, delivery and management.

Profitability in the housing market is related to the return on Investment (ROI), commonly measured by the IRR (Internal Rate of Return). As shown in Figure (2.10), the success rate observed in a PPP is measured

by profitability, which is among the essential factors to measure the success rate in a PPP. The success factor can be measured based on profitability and other factors, including:

- Quality delivery, on-time delivery within the budget, delivery with risk-sharing or risk-sharing efficiency
- End-user acceptability, desired quality delivery, and benefit to investor (ROI). It was evident from the findings that the respondents recognise that the private sector is in business to make a profit, so as a result, further incentives should be provided to stimulate its participation in PPPs and invest in affordable housing development projects, including gap housing.

The partnership between the public and private sectors can focused on many critical elements, including risk-sharing, financing terms, the contractual agreement between the involved parties, the establishment of partnership models, and the formulation of strategies for determining the most suitable form of public-private partnership (PPP). Incentives should be provided to stimulate private sector participation in PPPs and invest in affordable housing development projects, including gap housing. In all case studies presented, all partners agreed on their contributions and sharing of the risks and profits of the affordable housing project. Another strategy relates to partnerships with other institutions to raise financing and increase efficiency to make affordable gap housing projects more feasible. The findings revealed that partnering with institutions can help increase the viability of housing projects. Institutions like SAARDA, NHFC, Banks, and other private institutions are there to serve as financial institutions, facilitators, and innovators in affordable housing delivery. In the discussion of the findings above, the Department of Human Settlement forms partnerships with private social housing institutions to provide social housing projects, therefore the cooperation between the government and private sector institutions can increase the viability of the projects.

Housing developers cooperate to engage in bidding processes, obtain credits, and execute civil work. With incentives, subsidies,banking, investment, and development partners from the private sector can actively engaged in developing affordable housing delivery. The literature revealed that government can play a mixed role, acting as a provider and facilitator. In those international applications of PPP, the government has taken a significant role in lower -middle income housing by providing substantial subsidies. This pattern is also found in the findings where the respondents have suggested several incentives and subsidies to improve the viability of the housing PPPs scheme.

With regard to the type of incentives that should be provided to the private sector in order to stimulate their participation in affordable-gap housing delivery for the residents in inner-city areas of Cape Town, public sector's respondent (WCGCT-08) noted that "it is essential to fast track the processing of permits and waiving certain costs, such as development fees or construction material allowances, etc." These interventions will minimise the capital or operating costs and can assist in achieving affordability for households classified in a gap housing market where the rentals or ownership units are unaffordable. According to Abs-10, the accessibility to affordable housing is a key to fostering inclusivity and equitable

and sustainable economic development. Absa's long-term partnership with other private and international organisations would aid in addressing housing inaccessibility in South Africa by enhancing access to affordable and gap housing finance for low-to middle-income households.

All respondents suggested several incentives. The respondent DHS-01 referred to City of Cape Town's incentives. DHS-01 noted that more incentives for affordable/inclusionary housing in the well-located areas/inner-city will be made available. Respondents suggested the following incentives, which can be categorised between financial and non-financial:

- ◊ Reduction on development charges.
- ◊ Regulatory impediments to the entrance and the easing of the registration process are significant because the excessive application and registration requirements for new affordable developments might operate as barriers to new investment in inner-city or other well-located areas.
- ◊ The increase in the number of housing subsidies.
- ◊ Scaling up the availability of infrastructures.
- ◊ Exemption from taxes on raw materials or development costs in general.
- ◊ The use of vacant well-located land owned by the municipality or state-owned land.
- ◊ Additional land-use rights must be granted to facilitate the development of affordable and gap housing in inner-city areas.
- ◊ The City of Cape Town also has to consider the elimination of planning restrictions, such as excessive parking requirements or discounting or postponing the payment of development contributions for the development's affordable component.

For example, the respondent NHFC-02 confirmed that their institution provides bridging loans to subsidy housing contractors who have been awarded housing tenders by municipalities and provincial housing departments, but lack sufficient liquidity to finance these contracts. The respondent added: 'the increase in bridging finance can have a positive impact on the affordable and gap housing-related projects'. NHFC is providing finance in the form of subsidy, and it can provide up to 90% of the cost of the project depending on the contract between the stakeholders involved in the housing project. The respondent NHFC-02 also said: 'the Affordable Housing Programme of the NHFC provides bridging finance to developers who construct housing units that sell for an average of R 650,000. Households with a combined monthly income of R 22,000 are the target market'.

Reducing the development risk by decreasing the holding costs (e.g., interest payments, security fees, rates, and taxes) is a significant cost factor for prospective developers. The time required for a developer to get relevant planning approvals is a significant contributor to these holding costs. This risk is then incorporated into the cost of money.

The respondent APD said: 'I think if the government can assist in funding the project for providing affordable housing, so anything is possible ...they can try to support the project through different options

including taxes options and/or land, this can result a win-win situation. They have also to look at the country's economy in general, because for example, in this time of the pandemic, people can't afford to secure a loan from the bank, because of the poor credit record. This necessitated government to work with the banks and other financial institutions in order to assist with securing the loans. The government has to facilitate the process to be approved without too many delays.'

Respondent NEK-09 noted that Nedbank is dedicated to advancing affordable housing in South Africa through the Affordable Housing Development Finance unit located within the Nedbank Corporate and Investment Banking (NCIB) and the bank's long-standing funding partnership with private equity firm and International Housing Solutions (IHS). IHS has built numerous affordable houses in all South African municipalities, including the City of Cape Town. Many of these completed houses were made possible through Nedbank's Finance Solutions. The IHS model provides affordable housing with 1-, 2-, or 3-bedroom units located as near as to essential amenities such as transportation hubs, shopping centres, and schools.

The participant COCT-07 said: the municipality works with its partners, which include financial institutions, primarily banks and other agencies, to maximise the number of subsidies designated for affordable housing, for example FLISP housing programme. The municipal contribution to gap housing is often through the provision of land at a discounted cost because the municipality does not use or invest funds in affordable and gap housing development projects. What the city does is only making the land available to competent or prospective private developers and investors in affordable housing delivery either through direct sale or using a long-term lease at a reduced rate. COCT-07 said, "well , we will often try to give incentives through discounted land and through driving forward upfront approval of land use planning processes, so that a developer risk is reduced and profitability is increased. Other strategies could include discounted development charges, allowing for end users to benefit from different state subsidies that are available; or reduction of parking requirements for that particular type of development ". For the discounted land, the respondents mentioned that sometimes it could either be owned by the government or leased out. For example, where it is owned by the city, then it will be discounted if it is specifically for affordable housing and is in line with various policies for affordable housing .

In the case of the City of Cape Town, incentives could include encouraging development in Transit Oriented Development (TOD) so that the people that are benefiting, they can easily access public transport. This can result in savings on less use of private vehicles . So if a developer chooses a piece of land in an area earmarked by the City's Spatial Development Framework for high density housing, they can use that supporting documentation for planning application motivation" (COCT-07). There are also reduction in bulk infrastructure contributions in general whether the city owns the land or its private land, if the development is for affordable housing. The City of Cape Town has begun working with its partners to develop affordable housing in the City's inner-city areas. However, many of these projections are not implemented using a PPP strategy. In previous years, for example, the City initiated public participation in

the Newmarket Street housing development project. It is part of the city's planned building of over 2,000 affordable housing units on well-located parcels of land in and near urban centres throughout the metropolitan area to promote better spatial equity. The City of Cape Town continues to evaluate all city-owned land suitable for affordable housing development within the metropolitan area. Most of these development projects are for social housing. Much more effort is needed in order to provide gap housing at scaler in inner city areas of the city .

Conradie Park, social housing unit, is at the centre of South Africa's first wholly integrated, mixed-income housing development. It was constructed with a partnership between developers Concor and the Western Cape Government, consists of more than 3,500 affordable housing units .Social Housing is a rental or co-operative housing alternative for households with monthly incomes between R1,501 and R15,000. Social housing institutions get government funds to operate rental units. Then the end-user/ tenant pays a lower rent amount to the social housing institution based on the household income. More efforts are needed to provide gap housing, while the City needs to develop a strategic plan to broaden the segment from R15 000 to R22 000 to include all.

Respondent WCGCT-08 agreed that PPPs could contribute to gap housing delivery but suggested that partner cooperation should be increased so that the local community can benefit from development provided through PPPs. As stated by the WCGCT-08, the government is encountering issues in selecting the best suitable site for constructing or developing gap housing close to social facilities and other economic opportunities. Furthermore, as mentioned by respondents APD-05 and KPD-06, the overregulation imposed by the government prior to development discourages private developers' to deliver affordable gap housing. For example, limited government financial support and limited profit from large-scale development projects and requirements for 20% equity (deposits) from developers before development discourage developers and other potential investors from participating in affordable housing delivery.

4.7 Roles of Stakeholders in Public Private Partnerships

Findings from the literature show that partnerships allow the public and private sectors to achieve their goals for the benefit of everyone, which results in greater certainty, increased efficiency, lower costs, and lower risk perception, thereby resulting in lower delivery costs. In addition, it is possible through private sector finance and expertise to improve service delivery (RSA, 2004). In both the South African provincial and municipal spheres, a PPP, by its nature, entails targeted public spending, primarily on outputs that meet agreed-upon standards and leverages private-sector financing and efficiencies. It also entails assigning risks to the party best suited to manage them.

The concept of PPPs is related to different phases, including designing, financing, implementing, and operating local government facilities and services (Iwegbuna,2019). The importance and role of each stakeholder is listed in Table 3.2, in the provision of affordable and gap housing in South Africa. For the

PPP projects in the provision of affordable housing to be successful, both the local government and the private sector have different incentives (Iwegbuna,2019). In general, the government has the money that needs to be used by the private sector, which requires capital.

The government is responsible for establishing, regulating, and writing the rules that are required to be implemented by the private sector. The DHS is primarily responsible for establishing and facilitating a process of affordable housing development, including the promotion and developmentt of sustainable human settlements. DHS-01 said, "we are responsible for the financial management and monitoring of housing initiatives, including programs in South Africa, With PPP's constructions will involve tenders through supply chain management to implement projects on the ground'. As discussed with participant NTU-03, the National Treasury Unit is primarily concerned with regulating the process of PPPs, guided by its manuals.

The Western Cape Government, through its Inclusive Housing Policy, aims to establish a clear pathway for the future of human settlements by identifying strategic solutions to the complexity and involvement of public and private sector role players, with the overall goal of improving the provision of affordable housing in well located areas in cities and towns in the region. The primary role of municipalities, such as the City of Cape Town act as the governing body to ensure that the City, together with other stakeholders, recognise and supports the delivery of affordable housing for all households in well-located areas of the City. This is done by creating more housing opportunities and providing sustainable solutions to the City's residents for adequate and equitable service delivery for integrated human settlement.

Financial institutions, such as commercial banks are also committed to contributing to affordable housing by investing and financing affordable housing programmes and partners with private equity firms and other local and international organisations to supply affordable housing close to amenities and other economic opportunities. The role of the NHFC (National Housing Finance Corporation) is to serve as a financial institution, facilitator, and innovator in the affordable housing finance industry. The respondent NHFC-02 stated that 'the role of NHFC is to provide feasible housing financing solutions, create sustainable human settlements, and engage with necessary partners through enhancing insight and expertise gained'.

The South African Affordable Residential Developers Association's (SAARDA's) role is unique in that its members deal with particular issues. The affordable housing sector is distinctive in its characteristics, requires specialised knowledge, and imposes certain practical constraints on the role players involved in the supply of affordable housing. The respondent SRD-04 remarked that 'this institution's major duty is to advise and pressurise banks/ financial institutions, governments, and other relevant parties about the industry's difficulties in providing affordable housing to South Africans'. According to SAARDA, the establishment of additional institutions, is necessary to represent the interests of developers engaged in affordable housing delivery within national policy and implementation discourses in order to:

- ◊ Serve as a platform for members to negotiate with important industry actors, such as lenders, building materials suppliers, and the government, on behalf of the organisation;
- ◊ Engage and work with banks and other financial institutions to increase financing to affordable housing markets (including end-user and development finance).

The role of private property developers is to control the entire development process from the inception to the completion of the project and to ensure that all projects are completed on time within the budget and agreed-upon specifications with their clients. As seen in the literature (case study), it is possible to measure the risks and shared this responsibilities amongst public and private partners in PPPs. Regarding how much risk can be transferred from the state to the private sector, by public sector. For example providing the land to curate beneficiaries; guarantee offtake, set design standards, and underwrite end-user mortgage payments, construction financing, end-user mortgage financing and annuity payments. On the other hand, the private sector's primary responsibility is to building housing units, providing social services for end-users before and after occupation, and designing units. Furthermore, it can finance construction fully or partially and operate and maintain it for a specified period

4.8 Housing Policy Framework and Project Interventions

The South African government has announced on numerous occasions its support for the affordable housing, including in the National Development Plan (RSA, 2011). Although there is no national policy on affordable housing, the Breaking New Ground policy (RSA, 2020) is based on stimulateing affordable housing development. The National Housing Code includes numerous programes for the development of affordable housing, governing rules for development, beneficiary identification and selection procedure, house size and costing, etc, in order to optimises the development process and ensures consistency. However, the FLISP and Social Housing programmes are the only response to providing affordable housing. This sub-section deals with the state providing broader housing policy framework interventions to increase the success of providing affordable gap housing, and specifically through tools such as PPPs.

The case studies included examples of intervention at two levels: ecosystemic intervention, which involved public policy and institutional activities, and project-level intervention, which focused on elements suh as land, infrastructure, and development rights. The contrast between enabling and implementation, particularly when considering projects at the operational level, poses a challenge in scaling these approaches. It is evident from the literature review and case study findings that inclusionary housing policies, aimed at incentivising developers to incorporate affordable housing units into their projects, are needed to enable social and inclusion. Project based measures such as land value capture, as it uses a portion of the increased land value due to public regulation changes and increased development rights, to finance the inclusion of affordable housing.

4.8.1 Public Inclusionary Housing Policy Interventions

The literature and findings have revealed that the responsibilities of the public sector relate mainly to establishing policies and laws to incentivise the provision of affordable gap housing. For example, the public sector could curated beneficiaries, provided finance (subsidy), specify the design of the units, and hand the project over to the private sector to construct and manage. A cross-subsidisation strategy can reduce the need for public financing to develop affordable housing, allowing the government to pursue further development projects. In the examples of the international applications of PPP case studies presented, it is evident that the for the affordable gap housing projects to be successful, it is necessary for the state to assist with direct incentives, such as the provision of land and/or essential utility infrastructure (e.g, water, power, waste removal), up to the project site's boundary limits.

In the case of South Africa, the respondents noted that more innovative housing programmes are necessary to address spatial imbalances and that additional inputs into housing strategies (value capture) and laws governing land use management in terms of planning and zoning, which can aid in the delivery of affordable gap housing in inner-city areas. For example, the respondent DHS-01 discussed the newly drafted policy Inclusionary Housing of the Western Cape Government and said: 'Inclusionary housing policy, once implemented, will speak to spatial plans to address historical and spatial imbalances. Although it will assist especially the private partners, it will also specifically require the municipality to designate areas where national or provincial inclusionary housing policy may apply, for example inner-city areas that forms part of the municipal spatial development framework'. The participants have recommended the following instruments to improve the feasibility of providing affordable inner-city housing:

- ◊ Land development regulations/laws that are more favourable to affordable housing development.
- ◊ Local governments and other institutions should release more land for affordable housing.
- ◊ Faster and more effective adjudication and delivery of land development by provincial and municipal government statutory authorities.
- ◊ Monitoring and disseminating information related to affordable gap housing.
- ◊ Support authoritative research on affordable gap housing, encouraging a better knowledge of this market among participants and other players within the market.
- ◊ Encourage increased innovation and creativity in end-user financing in the market to extend the base of financed households; development financing; government engagement with the affordable housing sector; and increase affordable housing products produced among market participants.

The respondent NHFC-02 said: 'developing the new housing strategies is needed for increasing housing solutions with relevant supporting mechanisms.... all key players from various institutions need to come and work together and develop new policies which should enhance the provision of affordable housing in well-located areas. In the view of improving the feasibility of gap housing delivery in inner city areas of Cape Town metro, the participant WCGCT-08 explained that it is crucial to make improvements in terms of urban development and housing policies, such as housing programmes, spatial targeting, and land use

management (by-laws, zoning, value capture, etc.): "it is necessary to identify areas for affordable or gap housing like restructuring zones".

As the government's main motive is to provide affordable housing for the people, much effort is needed to allocate suitable pieces of land near economic opportunities that need to be developed by the private sector, in particular the provision of rental stock. As discussed above, one respondent said that PPPs allows the government to draw attention to affordable housing issues through enacting laws that are more friendly to this market. The state and other institutions should release more land for affordable housing and build more infrastructure capacity at the local government level to achieve affordable housing objectives.

COCT-07 said that : I would say the development of an inclusionary housing policy at the city level is an improvement in terms policy, which can support the provision of affordable housing in the city. This will enable planners when they are assessing land use planning applications to negotiate the inclusion of affordable housing at the point of planning approvals.

4.8.2 Public Sector Financial Incentives

Public Private Partnerships can improve its performance and become more effective for affordable housing delivery through increasing the provision of financial incentives (APD-05, DHS-01, and NHFC-03). To attract the engagement of the private sector, all kinds of incentives, including tax incentives, for example, UDZ (Urban Development Zones) tax; direct financial incentives, for example housing subsidies, can have a positive impact on affordable housing delivery. Therefore, the more there is an increase in the number of financial incentives/subsidies, the more feasibility in projects can be achieved. For example, the respondent SRD-04 said: 'It is essential to provide housing subsidies, including reduction on taxes charged on construction material; the government can try to maximise the provision of incentives in all squares of the development in order to promote the provision of affordable housing'. The respondent DHS-01 supported the idea, but suggested that other stakeholders, including the private sector and community, also have to contribute. 'Remember, we need to protect government funding as well. The private partners are looking for profit. The City of Cape Town has incentives; however, each project is evaluated on its merits. We need to look on how much the government is providing in terms of funding, what is the private sector is contributing to the development and what is the end-use benefiting from this development. So, in other words, all the costs don't solely fall either on the government or the end-user because the actual fact is that it can't be called affordable housing if you are not making it affordable to the end-user'. WCGCT-08 elaborated that "the waiving of costs for servicing of the land and administration costs should be considered".

4.8.3 Public Sector Infrastructure Investment

Planning for and securing infrastructure availability are critical to minimising delays in a developer's ability to proceed with construction, ensuring the handover of complete development and attracting more beneficiaries of the projects. In addition, the feasibility of affordable housing will increase with the scaling

up of investments in infrastructures such as utility services and BRT (Bus Rapid Transit) system and securing land and buildings for affordable gap housing. The provision of public infrastructure also depends on the scores in specific areas. The Department of Human Settlement, through the local municipality (e.g, the City of Cape Town) has criteria for providing new infrastructures or improving the existing ones (DHS-01). Other departments of importnave for investment in infrastructure, include Health, Education, Transport and Public Works. "In terms of the public sector infrastructure investment, securing land and buildings needs to be done in the best locations for integrated human settlements, and the government has to continue using its limited resources and look for partners to invest in infrastructure development projects like utility services, BRT, water and waste system management, etc.," WCGCT-08 said. Participant KPD-06 supported the idea of investing in infrastructure and said: 'investment in infrastructures can stimulate more development, easing the transportation (with BRT), availability of land for development, and the provision of utility services. are all prerequisite motivations for most private developers'. This wassupported by SRD-04, by confirming that the enhancement of the capacity of local government infrastructure is necessary to attract more affordable developments in an area.

4.8.4 Private Sector Financial Investment

Private sector financial investment in tandem with public sector investment can be an critical strategy to improve the feasibility of affordable inner-city housing in terms of the capital available, real estate property market, and designing concepts. The respondent DHS-01 said: 'I think it's very important for the private sector to be part of the development process, from the project formulation by the public sector, to reflecting on the property market, the site development plans, rezoning application process of planning, and building plans approvals. so it's good to involve the private sector from the beginning before construction takes place'. The respondent KPD-06 said: 'Important in their capacity, the private sector has to be engaged in all phases of the development. The developmental charges have to be minimised, and the vacant or state land can be made available to the private sector to be developed; every project is unique in some cases, there is an exemption on tax for raw materials'.

4.9 Summary and Recommendations

Given the crucial role that good legal, regulatory, and financial environments play in attracting and keeping investment in the urban sector, it is now commonly understood that their efficacy is critical to the sustainability and growth of housing and urban sector PPPs in general (UN-Habitat, 2011). The private sector usually dominates urban housing development, and the non-profit sector serves as a critical catalyst, advocate, and provider of technical assistance. Therefore, it is imperative to make some recommendations regarding the land acquisitions and securing title, land use zoning and regulations, financing housing supply, and finally, design and construction. The analyisis suggested the following investment and incentives strategies to increase the participation of the private sector in gap housing delivery in inner-city areas:

- ◊ It takes a competent developer a long time to secure a prepare a site for development, ensuring that well located and suitable land is made available for development at an affordable price, is critical.
- ◊ The relaxation of unnecessary regulations and the reduction of the 20% deposit (equity) required from developers, will increase the returns to developers, thereby enhancing the private sector's contribution to the delivery of affordable housing in inner city areas.
- ◊ Significant effort must be expended to secure end-user financing.
- ◊ Densification strategies for developers, such as increasing the existing bulk rights through building an extension or adding floors to accommodate an increase in the number of dwelling units in a mixed-use development. The creation of attached/detached second dwellings, including the transformation of non-residential buildings or portions of buildings.
- ◊ Land subdivisions and higher-density development should be encouraged.
- ◊ Innovation-focused investment in building technology research.
- ◊ Waiver of planning and development approval fees and taxes associated with the delivery of inclusive housing.

Effective policies must incorporate immediate actions to address the affordability challenge and long-term actions to maintain or boost affordability. Therefore, it is critical to understand the investment and incentives strategies in terms of financial and non-financial measures that are crucial and essential for the Public Private Partnership to facilitate and provide affordable houses in inner-city areas. There are effective legal, regulatory, and financial frameworks that can assist policymakers in paving the way for successful PPP implementation. Based on the literature review and the case study finding, which is rich in good practices of PPP in providing affordable housing**,** the following recommendations are highlited:

Legal Structure for PPPs

When establishing a suitable legal framework for PPPs, it is critical to take into account that there may be laws and regulations to that specific to the country in which it is implemented. Various models have been used to provide affordable housing with variable degrees of success and outcome, and no one model can be applied universally. Each model has its merits and shortcomings in terms of how it incentivise the private sector to perform and the remedies it provides for addressing the lack of performance, lack of transparency, and corruption. At its most fundamental level, the legal environment must reduce the possibility of corruption and be sufficiently reliable and credible to attract private participation and investment. The South African context, must ensure that PPPs in housing and urban development should adhere to the Constitution, values of transparency and fairness while also reflecting prudence to ensure the project's long-term sustainability.

There must be confidence among potential investors and participants in the project that the laws and contracts are solid and can be enforced in court or through arbitration as necessary. The more uncertain the legal and judicial environment is, the greater the perceived risk for investors and other project participants. In other words, the project will be viewed as unpredictable and high-risk. The City of Cape Town should

continue to identify and address legal uncertainties and impediments that limit private sector's participation in PPPs to serve the public interest.

The process of acquiring land must be transparent and equitable. The City of Cape Town should exercise their legislative authority to expropriate land only after exhausting non-statutory alternatives such as land pooling and negotiated settlements. A flexible and transparent land policy should promote diverse forms of development that generate opportunities for affordable housing delivery in a gap market while accounting for all public agencies' landholdings. Additionally, taxation models can aid in land use optimisation by disincentivising the abandonment of vacant lands or properties (World Economic Forum, 2019). Transparency is essential in the tendering or bidding process while seeking a competent or prospective developer/investor. Furthermore, to make gap housing development projects more Viable, the COCT must guarantee that openness and zero tolerance for corruption are observed in partnership with affordable housing financial institutions.

Concession laws should clarify which level of government has control over the granting of PPP contracts, which sectors or types of urban infrastructure projects may be given, and how the building and subsequent operation of the PPP will be regulated. The procurement rules must be established in advance and applied equitably to all competent applicants and bidders in the City of Cape Town. There should be laws in place that allow for an equal chance for all competitors in the same industry to compete. Respect for certain procedures in awarding investment contracts in a transparent and non-discriminatory manner should be included in this regard.

Labour legislation should be enacted to mitigate public opposition to PPPs. That may include establishing robust stakeholder consultation practises and incorporating regulations that protect workers' pension, wage, and benefit rights, as well as collective bargaining rights. The City of Cape town must ensure that the law is clearly defining the roles and obligations of the municipality and other governmental agencies in terms of who would give financial or economic assistance for the implementation of privately financed projects, as well as the forms of assistance they are permitted to advance. In addition, investment laws should not discriminate against foreign investors, lenders, or operators, and ensure that foreign actors have equitable access to critical inputs such as capital, permit and licence processes, materials, and labour. To the extent that legislation and the legal environment must be altered to fit the desired PPP, the planning stage should incorporate a realistic time frame for this modification.

The City of Cape Town must promote the strategic policies of densification, Transit-oriented development (TOD), Urban development zones (UDZ), regeneration, and integration zones. New housing subsidies, laws, and policies should be introduced that can facilitate the provision of affordable housing in inner city areas of the metro. There should be an agreement between the municipal government and affordable housing institutions, for example, regarding land use rights, the new zoning policies, and laws. The CoCT must devise a strategy for addressing the issue of bureaucracy by reducing unnecessary impediments related

to statutory requirements, such as accelerating the statutory planning, heritage and environmental authorisation approval processes.

Regulatory Structure for PPPs

Partnership success and impact rely on an explicit and solid regulatory environment that offers effective control, monitoring, and strict audit standards for performance results. For PPP projects in the housing and urban sectors, this responsibility for contract compliance should ideally delegated to an independent regulatory authority (PPP unit in the case of Cape Town municipality, under the National Treasury's PPP Manual and Standardised PPP Provisions founded on the PFMA and Treasury Regulation 16) that adheres to the following characteristics:

- ◊ It ensures that decisions are made independently of political or outside interests.
- ◊ It contains explicit procedures for disclosing and explaining all decisions.
- ◊ It adheres to fundamental principles of accountability and transparency, including a well-established system of checks and balances to ensure it carries out its mandate equitably.
- ◊ It ensures that the tendering process adheres to the overall legal framework and that the ensuing project implementation process adheres to the project goals and priorities indicated in the planning documents.
- ◊ Where applicable, additional regulatory mechanisms for resolving disputes between project participants and independent regulatory agencies should be developed.

Wherever possible, redevelopment should be promoted, such as office conversions or 'repurposing' underutilised or decommissioned land or buildings to increase housing supply (World Economic Forum, 2019). ICT tools can assist in the consolidation of regulatory requirements into a single integrated system for approvals and compliance monitoring. Government agencies and provincial and local municipalities can encourage large, medium, and small real estate developers to join and participate collaboratively in large-scale affordable housing projects, with a master developer guiding smaller-scale developers with experience in affordable housing.

City of Cape Town must take into consideration the required planning related approvals and alignment with the City's Integrated Development Plan and Spatial Development Framework to ensure that infrastructure investments in inner city areas are implemented concurrently with affordable housing projects. The City of Cape Town should investigate the possibility of transitioning from conventional segregation of single-use property to more mixed-use, including inclusionary zoning, to help prevent low- and middle-income households from being driven out into the suburbs. The municipality should prioritise property rights (e.g. measures to prevent forced evacuations and unjust relocations) over formal property titles, foster the development of collective tenure organisations (e.g. community land trusts), and explore municipal land bank partnerships to release land for affordable housing. A strategic plan for land release for affordable and gap housing is required. In terms of affordability, the CoCT must release the land at a discounted rate to stimulate private participation. In cases where there are informal settlements on the site or illegal occupants,

a better strategic approach is needed. The CoCT must have effective land invasion units in place to prevent unlawful land takeover and forcible evictions. The government should also promote the establishments of more non-profit organisations focused on gap housing delivery and urban development to work with the City in the affordable housing sector. The CoCT should introduce the incorporation of operational grants, which permits mixed income to cross-subsidize and allow additional capital grants for densities above 4/5 stories.

Finance Structure for PPPs

In South Africa, access to mortgage finance is primarily limited to the bracket of high-income earners, and consumer indebtedness remains a serious concern for policymakers, making housing affordability in the country a major and critical challenge. According to the literature reviewed in this research, current mortgage terms, that cost are be affordable to only 20.4% of urban households. Some of the main factors contributing to that affordability challenges include low household incomes; poor credit records limiting access to finance; rising building costs; and scarcity of affordable, well-located land for human settlements development'. The most significant obstacle is the scarcity of well-located land. It is challenging for local governments to identify and provide significant construction sites for affordable housing close to economic opportunities. One condition attached to the supply of newly built houses on the market is that the price a household is willing and able to pay has to be greater than the cost of building the same house. Unfortunately, most households in South Africa, especially in Cape Town, where this research is based, do not have sufficient income and assets based on historical reasons associated with weak credit records or financial indebtedness.

Although the PPP financial structure can be quite complicated, such a project is typically composed of two financing components: private debt and equity. The optimal equity/debt ratio is project-specific, with a greater emphasis on debt financing than on equity financing. It is recommended that the private partner assume all debt financing risk for the project within this capital structure. That is critical because debt financing incentivises the private sector to effectively manage the cost-escalation risk associated with the debt and execute according to project expectations. In non-performance events, the government is not compelled to pay the private consortium's annual fee. Additionally, the private finance component ensures due diligence on lenders, who then supervise the project throughout the PPP's various phases. While private finance is frequently touted as a fundamental benefit of the partnership model, it is critical to recall that the private sector's cost of capital is always higher than traditional public financing of housing development projects. From a public finance perspective, the higher cost of private capital for urban housing sector PPPs may be justified and only if the risk transfer and efficiency improvements outweigh the higher borrowing costs. Beyond meeting initial costs, financing models should attempt to assure long-term affordability (World Economic Forum, 2019).

In the long run, tax credits are not the most viable solution, and thus, real estate developers can be effectively stimulated to build affordable housing units through measures such as relaxation of development controls

(e.g. height, density, setbacks, and energy efficiency), bonus systems, expedited approvals, and reduction, exemption, or refund of application fees, infrastructure charges, or rates for such projects. The private sector must adopt innovative technologies to fund land acquisition, title protection, urban infrastructure development, the construction of affordable housing, and its subsequent operation and maintenance. As recommended by the world Economic Forum (2019), In some countries where access to capital markets is difficult or unattainable which is the same case in the City of Cape Town, the private sector has to collaborate with national or state governments to establish mortgage liquidity facilities and develop a secondary mortgage market. Where it does not yet exist, the private sector can establish a residential Real Estate Investment Trust (REIT) market, which can effectively increase the supply of rental units in the city.

Investing in affordable, energy-efficient housing can be a win-win situation for both investors and the communities they serve, because it has the potential to create positive social change while also generating financial gains. Developers can invest in sustainable design concepts and energy-efficient housing, which can help optimise space (especially in co-living, micro-housing, and macro-housing) and lower energy costs (via the use of green roofs other energy efficiency measures). Alternative construction materials to cement and concrete should be investigated to reduce costs without compromising strength and durability. Productivity could be increased by using advanced automated equipment and tools such as building information modelling, building automation and control, and material passports.

Additionally, investors can find a way to work with the community to provide affordable housing, as employees will benefit from affordable housing close to the place of their work, which does not require long commutes from the inner-city areas of the City of Cape Town. When the public sector contributes a greater portion of the project's initial financing, it is stated that under such a framework, the public authority can exert control over incentive drivers by imposing severe penalties and fines for noncompliance. While it may be theoretically feasible to construct an efficient incentive framework that promotes cost reduction and efficiency, such a framework might be difficult to implement without incurring additional litigation and administrative costs. As such, despite preliminary examination of alternate funding mechanisms, the private finance component of PPPs remains a critical component of government cost savings.

There are also recommendations on the non-profit sector's role, including housing providers, financing, advocacy, and support. The housing providers must collaborate with the City of Cape Town, and the private sector to develop alternative tenure models for those who cannot afford housing in inner-city areas or private rental housing. Alternative tenure models such as shared ownership, equity ownership, and community housing providers' investing in market-rate housing and reinvesting profits to subsidise affordable housing are few of the feasible strategies. The non-profit sector can also assist in financing by exploring and considering the possibility of developing more community land trusts and non-profit residential REITs. It can collaborate with private sector investors, The City of Cape Town in collaboration with international organisations can secure long-term financing and build financial solutions to incentivise private investment via government guarantees. It can also utilise funding sources such as foundation grants, charitable

donations, local bond issues, government contributions to support affordable and gap housing delivery, infrastructure, and government-or international financial organisation-backed loans. The non-profit sector should also advocate and support the provision of affordable housing in a gap market by offering assistance to prospective homeowners and self-builders in obtaining information about land-use regulations, legislative instruments, property rights, acquisition methods, title procedures, building codes, low-cost construction techniques, and energy-efficient housing. The non-profit sector should also advocate for raising awareness of the benefits of mixed-income, mixed-use development to address the concerns about nimbyism or zoning bylaws in the City of Cape Town. It can assist communities interested in self-construction or retrofit projects with technical assistance.

On demand-side challenges, three major points which are critical to consider are determining eligibility, evaluating purchase model-rent or own, and access to credit. The City of Cape Town has to establish clear and transparent criteria for determining eligibility and identifying beneficiaries for affordable housing, taking into account factors such as occupation (e.g. higher priority has to be given to key workers), years of residency, income, household size, age, health risks, and productivity. It should promote a diverse range of tenure patterns, from rental housing, including long-term leases, to shared equity and shared ownership, all the way to full house ownership. It is time to develop a regulatory framework that protects tenants without distorting supply and protects landlords from the unjust impacts of first-generation rent controls. The City of Cape Town should engage with community representatives, private developers, and employers to discuss their perspectives and concerns about affordable and gap housing developments.

The private sector / investors have to develop more innovative approaches for establishing creditworthiness and assisting households who want to relocate closer to their working place in the inner City areas of Cape Town. The developers have to investigate and explore the possibility of tenure diversification through models such as build-to-rent and long-term rentals. Other assistance could include providing borrowers with financial literacy education, assisting them in budgeting, planning, and minimising construction, or home improvement costs.

CHAPTER 5. CONCLUSION

This study has highlighted the role and contribution of Public Private Partnerships in providing affordable and gap housing internationally and the prospect for South Africa as well as inner-city areas of cities such as the City of Cape Town. It has emphasised the importance of establishing and enhancing cooperation between public and private actors involved in affordable and gap housing supply. The aim of this chapter is to reflect back on the main research question, research sub-questions, and hence the study's objectives. This study was conducted with the prime objective to determine what can be done through collaboration between the private and public sectors to stimulate investment and development of decent, affordable, and gap housing. Therefore, this research is solution-based, focusing on ways to address challenges and maximise policy, financial, structural, and other opportunities that exist within the affordable housing sector.

The problem statement was stated that, as the need for affordable housing increases, the lack of government expertise, capacity and limited resources severely constraints the creation of affordable housing for the 'gap market', i.e., households have income which is too high to receive free-government subsidised houses but too low to afford even the cheapest option on the market. It is critical that affordable housing opportunities are provided with in inner-city areas that have proper amenities and social facilities and are close to economic and job opportunities. The research question was; in what ways can public-private partnerships (PPPs) contribute to providing housing opportunities for lower-middle income earners within the gap market in inner-city areas? This study was therefore conducted with the aim to ascertain the extent to which public private partnerships (PPPs) can contribute to alleviating the affordable housing shortage in inner-city areas for lower middle-income earners by promoting the provision of affordable housing to the gap market.

The research responded to the research objectives identified.**:**

To ascertain the impact of affordable housing shortages for lower middle-income earners in inner city areas in South Africa. The impact of affordable housing shortages for lower middle-income earners in inner city areas in South Africa is significant**.** The literature review revealed that South Africa has a housing crisis, and there is an urgent need to address and resolve the challenge of affordable housing. Low-to middle-income households are unable to afford housing units in the market. Numerous studies have demonstrated that the lack of accesss to unaffordable housing is primarily caused by a shortage of income and a lack of housing finance, an increase in the cost of investing in real estate, government regulations, and issues relating to the price and availability of land and tenure. A number of interfering factors, such as urbanisation and housing policies contribute to the complexity of challenges associated with unaffordable housing. The housing market can be defined in terms of segmentation (e.g, by income brackets, loan affordability) or disaggregation (e.g, supply quantity and resale ability) and all of these characteristics have an impact on the filtering process of the housing market. The findings indicated issues resulting from a

deficiency in the supply of scales and as a result, affordable gap housing needs to be produced in sufficient quantities in order to respond adequately to this challenge.

To investigate current public sector policies and programmes aimed at providing gap housing opportunities within inner city areas. Although the South African government is striving to achieve its goals, to provide its citizens' access to affordable and decent housing in inner-city areas, all of the government sectors have major institutional capacity constraints. Issues. Municipal governments suffer from a severe lack of infrastructure capacity; property development applications are processed slowly at both the local and provincial levels and this impact on the construction and delivery of affordable gap housing. Statutory land development processes, such as urban planning development, converting inner-city or well-located land to residential property, and obtaining environmental clearances, are time-consuming, bureaucratic, misleading, and costly. As a result, private developers must contend with statutory land development processes that considerably hinder their capacity to supply affordable housing successfully. The activities of developers are impacted by the capacity constraints of government and in addition face high and rapidly-increasing land and construction costs. Therefore, the constraints encountered by the state and developers with the supply of affordable housing delivery in a gap market inner-city areas, such as Cape Town, are substantive.

The inclusionary housing policy and Finance-Linked Individual Subsidy Programme are currently two ways to provide affordable housing within the gap market. However, these programmes are not providing affordable gap housing at scale and in locations with high levels of jobs and amenity. Broader government housing policies and interventions are limited. The affordable housing sector has been mainly neglected by policymakers, who have yet to take action with regard to restrictive land development laws and other regulations. New private sector are required to increase the number of affordable gap housing solutions in their housing project, but are supported by pertinent policy and enabling mechanisms.

The case studies demonstrated major ecosystemic (through policies, public institutional mediation, etc.) and project-level interventions (land, infrastructure, and development rights) are required. Responding to these challenges is inhibited by the inability to distinguish policy enablement from implementation, particularly at the project level. Nevertheless, there is much to be learned from, particularly in areas where failure has occurred, and how the policies should be reshaped in light of precedent. This lesson should be learned from these applications, as errors are sometimes unavoidable and more likely to occur again. To ensure the success of providing affordable gap housing, it is crucial to adopt the new strategies to restructure and evaluate existing policies and practices.

To investigate the concept of public–private partnership as an approach and tool to better understand its potential contribution towards providing affordable housing for lower middle income earners. It is apparent that the affordable gap housing sector require a unified front to address the unique challenges the industry faced. It is argued that the problems can be overcome through innovation in terms of product

delivery by combing their efforts and through better co-ordination and collaboration by the public and private sector role players. All-important stakeholders from various institutions must join together to devise new policies and practices that will increase the availability of affordable housing in inner areas such as in the City of Cape Town. The research included investigation on how public partnerships functions and to what degree it may help to the delivery of affordable gap housing. A critical consideration is contextualisation. Before implementing any PPP model, it was suggested that three key considerations must be made. First, national context, i.e., policy, legal, fiscal, and institutional factors; second, city context, i.e., planning laws, development rights, and property taxes; and third, site context, i.e., location, developability, infrastructure, and marketability. Consequently, as the literature advised, a multidisciplinary and integrated competency is required to incorporate housing PPP solutions.

Collaboration with the private sector may fall under the category of consultative approaches, in which the government solicits professional or expert input from the private sector or community organisations. Additionally, there are contributory arrangements described as those in which the public sector contributes financing to the private partner, who is then accountable for the project's development and management. Collaborative development approaches bring together the private and governmental sectors in a given community and pool their resources to accomplish a common goal. As described in the literature , Fiszbein and Lowden (1999), who attempted to reconcile disparate definitions of PPPs and expanded the definition to include (or reaffirm) the pooling of resources (financial, human, technical, and intangibles such as information and political support) from public and private sources in order to accomplish a mutually agreed goal. As established by the PFMA and Treasury Regulation 16, the current PPP is overly regulated, causing delays in the private sector's registration with the Social Housing Regulatory Authority and other legal procedures that retardate the PPP project's cycle. As a result, it causes developers and investors to be frustrated and unable to respond to housing demand in real-time to take advantage of market opportunities.

To propose a PPP framework as well as financial and non-financial measures that will attract both investors and developers to address the issue of housing unaffordability in inner-city areas. In terms of suitable models and structures in housing delivery, PPPs are often implemented using a range of organisational structures and models. For example, can range from being directly controlled by the level of government engaged in which a large portion of responsibilities and risks will be transferred to the private partner to assume a significant amount of responsibility for the provision of housing and other public services. However, while a genuine type of PPP involves both the private and public sectors agreeing to share the risks and rewards of a given project, several methods show the different power-sharing and decision-making arrangements. Figure 2.6 shows the scale of PPPs, which shows the degree of risk transfer and private sector involvement in PPP models.

The primary data have also revealed that in South Africa, PPPs are mostly used in the provision of infrastructures and other services; however, in the provision of affordable housing in South Africa, particularly in the City of Cape Town, it is still a new approach, which needs to be explored and developed

in accordance with the international experience learnt from the pioneers in the use of PPP in housing delivery. The Casa Paulista, Regent Park, and Bhubaneswar projects and other PPP schemes presented in the literature from developed countries, are among the international applications of PPP in the provision of affordable housing, and many lessons can be learnt from them to find a way and fit them within the South African / City of Cape Town context. As discussed in the section 2.9.5, the main reasons for using the PPP approach are: (1) In general, the private sector is more mobile than the governmental sector. For instance, the former is not only capable of reducing project costs in terms of planning, design, building, and operation, but also of avoiding bureaucracy and easing administrative burdens. (2) The private sector can improve service to the public sector and form a strong PPP to provide a balanced risk-reward structure. (3) Although the government lacks the capacity to raise substantial sums of funds for large-scale infrastructure projects, private participation can help alleviate the government's financial burden

In the industrialised world, PPPs have become a popular method of public procurement that is essential to government policy. Various PPP-oriented developments in developed countries, particularly the UK and Australia, have proved the benefit and viability of such schemes, as well as how the concept has revolutionised public service delivery. In terms of contracting models and procurement, the most frequently used, suitable and recommended types and structures of PPPs for housing delivery, are: DBFOM, DBF, DBFO, DBFM, BOT, BOO, and equity partnership. According to the secondary data, while competitive bidding is the most frequently utilised strategy in PPPs, competitive negotiations or direct negotiations may be preferred bidding approaches for housing PPPs due to their increased transparency.

In terms of the identification of those measures that should be accounted for while considering a PPP scheme for affordable housing delivery, section 4.9 provides detailed recommedations on how appropriate and efficient legal, regulatory, and financial frameworks that can aid policymakers in facilitating the successful implementation of Public-Private Partnerships (PPPs). The data revealed a wide range of ways in which the public sector might commercially incentivise the private sector to produce affordable gap housing, including cross-subsidisation via land rights or income mixing, cost recovery via annuities, capital grants, asset transfer, and asset leasing. The various models have resulted in variable degrees of delivering affordable housing, and no single structure/model that can be generalised and applied to every location. Each model has distinct advantages and weaknesses in terms of how it motivates the private sector to perform, as well as its associated remedies, and it provides for addressing inefficiency, lack of transparency, and corruption.

The City’s intends to develop affordable housing opportunities in well-located areas/inner-city centres in an inclusive, equitable, and systematic way. Affordable housing developments are extremely sophisticated and detailed, with several statutory criteria to meet before development can begin. Hard work and devotion are required to see these initiatives through, as are the private sector roleplayers who are willing to collaborating with the government to create a more spatially integrated city. According to the City’s urban

policies, it is committed to creating more affordable housing opportunities on suitable, well-located land across the region.

This research revealed that public-private partnerships provides an innovative and unique approach to address this critical need and assist with restructuring the city. The findings and the literature indicated that in most cases, the private partner is unwilling to develop gap housing for lower middle-income groups without public asset provision, subsidy, or incentive. As the market expands, the public sectior must utilise its limited resources prudently and gradually wean the private sector from these dependences. While strategic use of subsidies, cross-subsidies, or incentives can ensure affordability and profitability, replication cannot be ensured, and a market cannot be developed unless the subsidy or incentive is sustainable and is regularly reviewed and adjusted to mobilize increasing levels of private investment and risk-taking based on the private sector's experience with PPP. Moreover, governments have always been more interested in public-private partnerships than market actors, making housing PPPs challenging. Public and private partners often require time to learn how to collaborate effectively.

Therefore, the research proposition that the implementation of public–private partnerships (PPPs) can be used as a housing programme and a basis to stimulate the provision of affordable housing opportunities for lower middle income earners residing in inner-city areas in South Africa, is accepted.

Recommendation for further research include In the delivery of affordable housing in inner-city areas, additional research is necessary to determine how the most suitable PPP models (DBF, DBFOT, DBFMO, BOO, etc.) can be assembled and integrated within the PPP project cycle as defined by the National Treasury Regulation 16 and Standardised PPP provisions founded on the PFMA, to provide gap housing within the shortest time-framework to stimulate the private sector participation , without delays originating from over regulations, unnecessary process and bureaucracy which discourage most of the private developers. More research is further needed to explore the adequate ways in which end-user housing finance can be increased for low-income earners.

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Annexures

Annexure A: Approved Ethical Clearance Form

Application for Approval of Ethics in Research (EiR) Projects
Faculty of Engineering and the Built Environment, University of Cape Town

ETHICS APPLICATION FORM

Please Note:
Any person planning to undertake research in the Faculty of Engineering and the Built Environment (EBE) at the University of Cape Town is required to complete this form **before** collecting or analysing data. The objective of submitting this application *prior* to embarking on research is to ensure that the highest ethical standards in research, conducted under the auspices of the EBE Faculty, are met. Please ensure that you have read, and understood the **EBE Ethics in Research Handbook** (available from the UCT EBE, Research Ethics website) prior to completing this application form: http://www.ebe.uct.ac.za/ebe/research/ethics1

APPLICANT'S DETAILS		
Name of principal researcher, student or external applicant		ERIC UWOYASHATSE
Department		CEM
Preferred email address of applicant:		UWYERI001@myUCT.ac.za
If Student	Your Degree: e.g., MSc, PhD, etc.	MSc. in Property Studies
	Credit Value of Research: e.g., 60/120/180/360 etc.	60
	Name of Supervisor (if supervised):	Dr. CECIL MADELL
If this is a researchcontract, indicate the source of funding/sponsorship		
Project Title		PPP in provision of Affordable and Gap housing in Cape Metropolitan - inner city areas

I hereby undertake to carry out my research in such a way that:

- there is no apparent legal objection to the nature or the method of research; and
- the research will not compromise staff or students or the other responsibilities of the University;
- the stated objective will be achieved, and the findings will have a high degree of validity;
- limitations and alternative interpretations will be considered;
- the findings could be subject to peer review and publicly available; and
- I will comply with the conventions of copyright and avoid any practice that would constitute plagiarism.

APPLICATION BY	Full name	Signature	Date
Principal Researcher/ Student/External applicant	ERIC NKUNDA UWOYASHATSE		19/09/2021
SUPPORTED BY	**Full name**	**Signature**	**Date**
Supervisor (where applicable)	DR Cecil Victor MADELL		20/09/2021

APPROVED BY	Full name	Signature	Date
HOD (or delegated nominee) Final authority for all applicants who have answered NO to all questions in Section 1; and for all Undergraduate research (including Honours).			
Chair: Faculty EIR Committee For applicants other than undergraduate students who have answered YES to any of the questions in Section 1.			

Page **1** of **1**

Annexure B: Interview - Questions for Knowledgeable Participants

Research Topic: Public-Private Partnership in providing Affordable and Gap housing in Cape Town Inner-City Areas.

Section One: Introduction

Name: …….……

Organization: ……

Occupation/Position: ……..

Contact/Information:

……..

Date: ……

Section Two: Public-Private Partnerships Approach

Do you understand the concept of Public-Private Partnerships (PPPs)?

Yes No

Please, if yes explain further the choice you made above

……

……

What types of Public-Private Partnerships exist in South Africa/City of Cape Town?

Build Own Operates Build Own Operate Transfer

Build Own Transfer Other specify

Design-Build-Finance-Operate-Maintain.

Explain your answer above (on the types of PPPs) how does it operate?

……

……

……

What is your role in PPP?

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.....

Do you think PPP is effective? Why? Why not?

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What are the criteria/conditions that your Institution considers before financing a PPP project? (to be answered only by financial institutions including (NHFC, Nedbank and Absa Bank).

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.....

Section Three: Concept of Affordable/Gap Housing

What is affordable/ gap housing in South Africa?

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……
……

Do we have an affordable housing supply for all people who are classified to be in the category of Gap housing or who earn below R15 000 in Cape Town?

Yes If yes, where?

No If no, why?

……
……
……
……

Section Four: PPPs in Provision of Affordable-Gap Housing

Does the Public Private Partnership contribute to affordable-Gap housing delivery in South Africa/Western Cape/City of Cape Town?

Yes

No

Please give the reasons on the choice you made above

……
……..…

Can the local community benefits from the affordable-gap housing delivery projects provided by the PPPs scheme?

Yes

No

Please give the reasons on the choice you made above

……

……

What are the constraints of Public Private Partnership in provision of affordable and gap housing to the resident located in Cape Town inner-city areas?

……

……

What can you suggest overcoming these constraints?

.....

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.....

.....

What incentives should be provided to the Private sector in order to stimulate their participation in affordable-gap housing delivery for the residents in inner city areas of the City of Cape Town?

……

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……

……

……..

How can PPPs improve its performance and become more effective for affordable housing delivery?.....

.....

What is your view on the following instruments to improve the feasibility of affordable inner-city housing?

- ◊ urban development and housing policies (housing programmes, spatial targeting, land use management (by laws, zoning, value capture, etc)?

….....

.....

.....

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- ◊ public sector financial incentives [tax incentives (e.g.: UDZ tax; direct financial incentives (e.g., housing subsidies)]?

…….....

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- ◊ public sector infrastructure investment (infrastructure investments (e.g. utility services, BRT); securing land and buildings (e.g. land banking)?

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- ◊ private sector financial investment (available capital; property market and design concepts)?

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- ◊ private sector infrastructure investment (development and construction costs; cost of land; alternative construction methods and materials)?

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Section Five: Any Other Remarks

Please state from your experience any other additional remarks or suggestions that may be useful in advancing this research?

……
……

What remarks do you have regarding the questions asked in this interview?

……
……
……
……

Annexure C: Letter and Consent Form to Participate in Research

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

Letter &Consent Form

Research Topic: Public–Private Partnership in Providing Affordable and Gap Housing in Inner-City Areas: City of Cape Town Case Study

Dear Mr, Ms Madam, Dr……

Hello, my name is Eric Uwoyashatse, and I am conducting research towards a master's degree at the University of Cape Town. I am researching on the Contribution of Public Private Partnership in provision of Affordable and Gap housing in Cape Town Inner-City Areas and would like to invite you to participate in the project.

Please you are free to check my full research proposal so that you can be full informed on the purpose, aims and objectives of the research , before we start the interview.

1. The main purpose of this interview is to fulfil the requirements for a Master thesis on the topic "Public Private Partnership in provision of affordable and Gap housing to the residents located in Cape Town Inner-City Areas". The aim of this research is to ascertain the extent to which Public-Private Partnership (PPPs) can contribute to alleviating the affordable housing shortage in inner city areas to the residents located in the Cape Town inner-city areas, by promoting the provision of gap housing.
2. The expected time for the interview should be a maximum of 20 minutes. However, if there is the need for the interview to go beyond this period, it will be rightly communicated to you, and the participant has every right to stick with the original time or continue with the interviewer request for extra time.
3. For the purpose of confidentiality, all statements, comments, references and or remarks made by the interviewee shall be treated with the strictest anonymity at the request of the interviewee. The interviewee also has every right to discontinue the interviewer at any stage of the process, with or without reasons for their decision.
4. At the end of the entire process, the interviewees shall again be contacted, and informed about the outcome of the analysis and close the curtain on this meeting.
5. You are welcome to ask any questions regarding this research by telephone or email to either UWYERI001@myuct.ac.za or 0728854526

Yours sincerely,
Eric Uwoyashatse

Participant Consent form

I agree to being interviewed and I understand that my participation is entirely voluntary, and that confidentiality will be maintained. I have the option to withdraw my participation at any time.

Name of participant .....Date .....
Signature of participant .....

Annexure D: Research Approval Request in the City of Cape Town.

CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Date	: 4 May 2023
To	: Director: Policy & Strategy
Reference	: PSRR- 0552

Research Approval Request

In terms of the City of Cape Town System of Delegations (March 2022) - Part 13, No 3a Subsection 4, 5 and 6

"Research:

(4) To consider any request for the commissioning of an organizational wide research report in the City and to approve or refuse such a request.

(5) To grant authority to external parties that wish to conduct research within the City of Cape Town and/or publish the results thereof.

(6) To after consultation with the relevant Executive Director: grant permission to employees of the City of Cape Town to conduct research, surveys etc. related to their studies, within the relevant directorate

The Director: Policy & Strategy is hereby requested to consider, in terms of sub-section 5, the request received from

Name	: Eric Uwoyashatse
Designation	: Masters Candidate
Affiliation	: University of Cape Town
Research Title	: "Public–Private Partnership in Providing Affordable and Gap Housing in Cape Metropolitan Inner-City Areas"

Taking into account the recommendations below (see Annexure for detailed review):

Recommendations

Recommendation that CCT via the Director: Policy & Strategy grant permission to Eric Uwoyashatse, a Masters Candidate in Property Studies Department at the University of Cape Town to undertake research in the City, subject to the following conditions:

- The willingness and/or availability of the individual CCT officials to participate in the research study, in a voluntary capacity;
- Engagement is limited to the scope and scale of the study, and restricted to the participants' professional input;
- Strict adherence to POPIA legislation and guidelines;
- Interviews are approved with the following two Human Settlements officials:
  - Senior Research Officer, Human Settlements Planning
  - as well as
  - Senior Professional Officer, Housing Development
- Interviews are limited to 1 per official, and not to exceed 1 hour in total;
- The researcher to make direct contact with the officials to set up the engagements;
- City officials and their inputs to be anonymised, and referenced by the functional role, and not by position in the City;
- The use of direct quotations in the report and briefing paper/s to be agreed in advance and in writing by the respondent concerned, and any text for direct quotation/s must be verified

N.E

and signed off individually ahead of any publication of the case study, policy briefing and/or report;

- Clear acknowledgement in the research report that the views of the CCT officials and the researcher's analysis thereof does not constitute official CCT policy;
- Submission and/or presentation of the final draft research product to the relevant Human Settlements Departments, via an agreed platform;
- The City logo and branding is not to be used in the research reports and/or related presentation;
- Submission of the enriched data, and completed research article to the Executive Director: Human Settlements, the Director: Policy & Strategy and the Manager: Research Branch - Policy & Strategy, within 3 months of completion of the research report.

Delegated authority:	**Acceptance by Applicant:**
Approved ☑ Comment: One interview with one of the two identified officials. Not Approved ☐ Comment: _____ **Hugh Cole**: Dir: Policy & Strategy: Hugh Cole Digitally signed by Hugh Cole Date: 2023.05.05 11:25:22 +02'00' **Date**: _____	I, ERIC UWOYASHATSE, confirm that I agree to abide by the conditions as stipulated above. Signed by candidate **Applicant**: _____ **Date**: 09 May 2023
CCT departments: No interviews or data to be provided without proof of acceptance of the conditions under which the research permission is granted.	***Kindly return signed copy to*** sivuyilevuyo.rilityana@capetown.gov.za

N.F