EXPLORING ALTERNATIVE FINANCE AND POLICY OPTIONS FOR EFFECTIVE AND SUSTAINABLE DELIVERY OF HOUSING IN SOUTH AFRICA

"For an Equitable Sharing of National Revenue."

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Acronyms/Abbreviations

BNG	Breaking New Ground
DoHS	Department of Human Settlements
HHs	Households
HSDG	Human Settlement Development Grant
MIG	Municipal Infrastructure Grant
NCR	National Credit Regulator
NDP	National Development Plan
NUSP	National Upgrading Support Programme
RDP	Reconstruction and Development Programme
RHIG	Rural Households Infrastructure Grant
StatsSA	Statistics South Africa
USDG	Urban Settlement Development Grant

Glossary of Terms

Affordability	How much a household can afford to spend paying for a home, which depends on the household's income and expenses.
Affordability Parameters	The factors applied to credit provided by financial institutions or used to calculate rentals.
Backyard rental	Informal dwellings found in the backyard of existing formal houses that usually do not comply with current planning and building regulations.
Demand-side interventions	Programme/activities that result in households being able to afford/access houses of higher standards.
Developer/Contractor	A person/company who is building a housing project.
Development parameters	Factors used to determine the cost of the housing unit and intervention based on defined specifications.
Funding parameters	Parameters applied to assess the cost to the State and the gearing of State funding.
Housing arena	Where a housing intervention is to be located (inner city, urban periphery, infill areas, existing suburbs etc.).
Housing circumstances	Current housing conditions of households defined in terms of tenure, the nature and condition of the housing stock, and services accessed by households.
Housing intervention	Explicit activities aimed at improving a specific current housing circumstance, for example delivering Reconstruction and Development Programme (RDP) housing, upgrading informal settlements or subsidising mortgage interest rates.
Investment interventions	Programmes or activities aimed at stimulating investment in housing such as, for example, tax rebates etc.
Subsidies and incentives	Financial assistance provided by Government to individuals or communities towards the cost of meeting their housing needs.
Supply-side interventions	Programmes or activities that result in the supply of housing to households, for example subsidy housing projects, site and service schemes etc.

1. Background

This research has been undertaken in the context of the government's renewed emphasis on and redirection of the delivery of human settlements, as stated in the National Development Plan (NDP) and taking into account fiscal sustainability issues. The NDP seeks to revise the housing finance regime, re-shape regulations and incentives for land use, transform spatial arrangements toward compact cities and promote active citizenry in meeting housing needs. This report is based on stakeholder inputs and the proceedings of two rounds of public hearings on housing finance held by the Commission, as well as a modelling exercise.

The first public hearings developed a common understanding of problems facing the human settlements sector.[1] The sector is overwhelmed by a number of challenges that are not always clearly understood, which results in inappropriate interventions from the public and private sectors. The lack of a common understanding of what constitutes housing demand[2] is a significant constraint to being able to provide the required mix of housing supply and demand. Administrative inefficiencies related to establishing and approving townships and to transferring title deeds increase the delivery costs and limit the development of a secondary market[3] for affordable houses. As a number of stakeholders agreed, the housing subsidy makes communities passive recipients (instead of encouraging them to mobilise their own energies and resources) and distorts the housing finance market. The subsidy scheme also imposes limited choice and flexibility, making it difficult for households to access higher-standard housing.

Following the first round of public hearings, the Commission undertook further research, to develop realistic alternatives that could address some of the challenges identified in the problem statement.

The motivation behind the Commission's entry into the housing policy arena was concerns over rising housing backlogs, poor programme delivery and rising expenditure, growing

[1] For full details, please refer to the problem statement report, available at www.ffc.co.za.
[2] Housing demand should be understood in a broader sense, to include current housing needs compared to housing supply for different households, as well as future housing needs that could be driven by population growth and changes in households' ages.
[3] The secondary housing market refers to the buying and selling of existing houses already owned by households as opposed to building new houses.

reliance on state assistance for housing, the inadequate influence of non-state housing interventions and perceptions of a lack of financial sustainability in the delivery of housing.

Since 1994, the South African government has delivered more than three million houses to poor and low-income households. These include fully and partially subsidised houses, as well as rental units. The success of the national housing subsidy scheme in delivering houses has been impressive. Yet, despite this delivery record, South Africa has an estimated deficit of over two million housing units, while more than 40 per cent of the available and used rental units are in a state of slum conditions. The backlog is attributed to an inability to deliver: in 2009/2010 the government delivered only 55 per cent of its goal of 300 000 units. Other causes of the deficit include exaggerated or overstated housing demand, housing delivery inefficiencies (delays in township establishment processes, infrastructure constraints and the limited availability of well-located and affordable land) and insufficient resources.

The approach followed for the housing options report included a literature and policy review, budget analysis and financial modelling of various housing interventions. The model's underlying analytical framework categorises households into different housing circumstances by tenure type (for example owned or rented) and income level to reflect their housing needs. For each housing circumstance (for example informal and traditional dwellings), the model applies a set of appropriate interventions and computes the cost and impact per intervention. Description of different forms of interventions is provided in Annexure A. Interventions are presented as four alternative scenarios, to offer an appropriate combination of policy options required to address housing challenges holistically. Although the census data for 2011 was not available at the time of this study in 2012, the results of the model remain relevant and useful for policy advice and decision-making, as the main aim is to develop alternative housing funding and delivery options, and understand the associated costs. Even if the actual costs change as a result of 2011 census data, the message and the bigger picture will not necessarily change.

The analysis found that different households in different housing circumstances and at different stages of their lifecycles require specific housing interventions. Government's role in providing housing must be understood within this context. The Constitution is particularly ambiguous about the role of government and the provision of adequate housing continues to be interpreted as physical delivery by the State. Such an interpretation is costly to the government but appears to have a significant positive overall impact on the number of qualifying households assisted. A combination of government and household/private sector-funded interventions costs the State less, but has less impact on households than the purely state-funded interventions. The most significant limitation to self-build initiatives is the high level of household credit, which reduces access to credit for building or home loans.

The housing options analysis was presented at a second round of public hearings, at which stakeholders made inputs. Generally, stakeholders supported the Commission's initiative to develop a set of alternative funding and housing delivery options. Some of the specific inputs made by stakeholders include the following:[4]

- The model needs to be updated using the 2011 census results.
- The government should introduce a better and more efficient public transport system, so that households will be better able to access economic opportunities and social services.
- The government must move away from investing in housing and focus instead on improving the lives of households. This would require merging a number of subsidies into a "sustainable human settlements" subsidy.
- Energy efficiency should be considered for all new buildings, which will result in an additional cost of about R20, 000 per unit.
- Consultations with communities are essential for the successful implementation of interventions.

Having provided some background on the process followed, the remainder of the report is structured as follows. Section 2 summarises the key challenges facing the human settlements sector. Section 3 gives the aim and objectives of the study, while Section 4 give a summary of research methodology used. Section 5 evaluates the performance in South Africa. Section 6 gives a brief description of the model utilised and results are presented in Section 7. Lastly, Section 7 concludes and put forward recommendations.

[4] Other issues raised by stakeholders that could not be dealt with satisfactorily in this report will form part of the Commission's research agenda for the future.

2. Key Challenges Facing the Human Settlements Sector

At the first round of public hearings, challenges noted included: insufficient delivery to scale and lack of sustainability, problems with providing fully subsidised housing, an increasing gap market, the lack of well-located land, and bulk infrastructure and housing delivery chain inefficiencies.

2.1 Insufficient delivery to scale and lack of sustainability

The delivery of over three million fully subsidised houses since 1994 is not enough to address the many housing needs. Despite significant increases in the budget allocated to human settlements and the delivery of over three million houses, housing backlogs remain at levels similar to those in 1994. Population growth and migration to cities add to the demand for housing and housing subsidies. Increasing costs over time imply that more subsidies will be required to deliver on promises.

2.2 Problems with providing fully subsidised housing

The high levels of unemployment in South Africa mean that 60 per cent of households are potentially eligible for fully subsidised houses. This has resulted in an increasing burden and dependence on the State for housing. The current subsidy is perceived as discouraging complementary investment and participation by the private sector and households, especially at the lower end of the market.

2.3 Increasing gap market

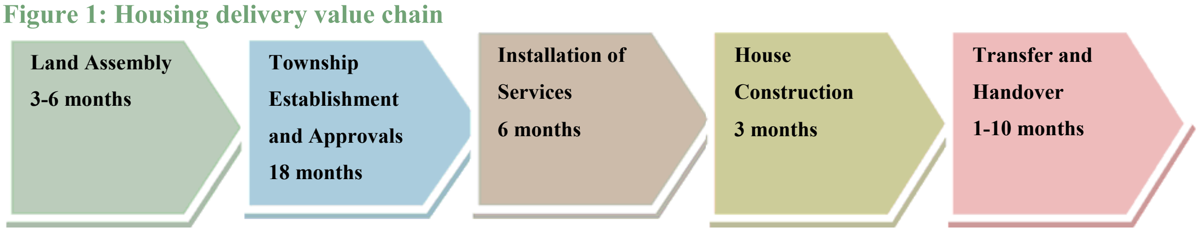
In South Africa, the gap market is growing, as more and more people do not qualify for a subsidy or for a mortgage bond. This gap market is made worse by the lack of commercial incremental housing products.[5] The finance-linked individual subsidy programme (FLISP) has not succeeded in encouraging the private sector to provide mortgages for households in the gap market. This burden has been passed onto the State.

[5] Commercial incremental housing products are housing finance instruments provided by banks and aimed at funding part of the construction of a new house, e.g. for purchasing a serviced site only, as opposed to covering the cost of an entire house.

2.4 Lack of well-located land, and bulk infrastructure and housing delivery chain inefficiencies

South Africa's national housing subsidy is based on a capital grant that finances top structure. It is insufficient to cover the costs of higher density development and higher land costs in well-located areas. This results in peripheral development. Even where land is made available, poor intergovernmental relations mean that housing developments can take up to three years from the establishment of a township to the handing over of houses (see Figure 1). A combination of land assembly problems, administrative and land-market inefficiencies and regulatory costs drive house prices up by 30 per cent on average.

Figure 1: Housing delivery value chain



Source: National Treasury, 2011[6]

[6] Presentation made by the National Treasury during the 2011 housing finance public hearings hosted by the Financial and Fiscal Commission.

3. Aim, Purpose and Objectives of the Research

The main aim of this project is to carry out an options analysis where various alternatives to the current housing finance frameworks and reforms are scrutinised, costed and modelled. The key options to be analysed in the study are as follows:

- The Business As Usual scenario also referred to as "Historical practice": reviewing the long run consequences and implications of the current housing delivery and funding system;
- Increasing supply side interventions: reviewing supply supply-side alternatives/reforms such as Integrated Housing and Human Settlements grant and mortgage indemnity;
- Switching to demand side interventions: finding ways to encourage self-built initiatives including leveraging household savings, housing vouchers and co-savings schemes. These include exploring the roles of the private sector and Development Finance Institutions (DFIs) - what sort of incremental housing products could they put on the table to facilitate self-build.
- Developing a hybrid model with clear roles and responsibility for government in all of the above alternatives.
- Undertaking basic costing of each option to establish the fiscal, economic and household impact.

4. Methodology

Methodology used is divided into two.

Firstly, a brief review of a Constitutional right to adequate housing and the role of government on fulfilling this right. A review of housing policy regimes and performance has been undertaken.

Secondly, a modelling exercise (Housing Strategy Tool) which is presented in an Excel workbook has been developed and used to cost selected housing funding alternatives. The model briefly described below. The tool utilises the following as inputs and assessment parameters:

- *Demographic Data:* 2007 Community Survey (StatsSA) data enhanced wherever possible with additional available data sets;
- *Financial Parameters:* Publicly available information on subsidy quanta, mortgage parameters, insurance parameters, supply and demand parameters; and

Cost Data: Information on the cost of developing land, infrastructure and housing based on extensive work previously undertaken as well as specific additional inputs from sector experts.

Development parameters – were applied in order to determine the cost of the unit and the intervention in terms of defined specifications. Costs in terms of defined specifications for the land cost per arena, infrastructure costs per level of service, construction cost for different standards and building methodologies, professional and programme management costs and a variation on land and service costs based on density has been developed and applied. The assumptions made in respect of each of these parameters are outlined in Annexure B.

Funding parameters - state subsidies, private sector funding to households and private sector funding to firms have been applied. The assumptions made in respect of each of these parameters are outlined in Annexure C.

Affordability Parameters - secured mortgage loans, unsecured credit and monthly rental on rental accommodation have been applied to the financial terms applied to either secure (bonded) or unsecured credit provided by financial institutions or the basis on which rentals for rental accommodation is calculated. The assumptions is made in respect of each of these parameters are outlined in Annexure D.

Housing needs used in the model have been determined through an analysis of the current housing circumstances of households and have been provided at a national and metropolitan level and are shown in Table 1 and 2 respectively. These tables also show the number of households per housing circumstances per income category. The table 1 can be interpreted as follows: At least 2.5 million or 21 percent of household in South Africa earning less R3 500 per month own formal house.

In addition new household formation (population growth) were estimated from 2007 to 2020[7]. Projected growth rates were applied to the 2007 Community Survey figures starting in the year 2008. In respect of the metropolitan municipalities 2001-2007 growth rates were assumed and an overall weighted average was determined for all metropolitan municipalities.[8] The growth rates were applied to the 2007 Community Survey figures for metropolitan municipalities starting in the year 2008.

[7] At a national level this was estimated using projected growth rates taken from UNISA BMR, Population and Household Projections for South Africa by Province and Population Group, 2001-2021.
[8] The growth rates were determined from UNISA BMR, Population and Household Projections for South Africa by Province and Population Group, 2001-2021.

Table 1: Housing circumstances: National Housing circumstances

Housing Circumstances	R 0-R 3,500	R 3,500 - R 7,000	R 7,000 – R 10,000	R 10,000 - R 15,000	R 15,000 – R 20,000	R 20,000+	Total
A: Formal – owned	**2,595,398**	**880,882**	**415,107**	**522,558**	**308,920**	**1,026,420**	**5,749,285**
% of total HH	21.0%	7.0%	3.4%	4.2%	2.5%	8.3%	**46.4%**
B: Formal - rented, plus Room/Flatlet not in backyard	**1,380,830**	**433,093**	**224,180**	**228,985**	**103,018**	**255,611**	**2,625,717**
% of total HH	11.2%	3.5%	1.8%	1.8%	0.8%	2.1%	**21.2%**
C: Informal settlement - regardless of whether it is owned or rented	**903,349**	**192,439**	**61,254**	**24,060**	**9,991**	**11,664**	**1,202,757**
% of total HH	7.3%	1.6%	0.5%	0.2%	0.1%	0.1%	**9.7%**
D: Backward dwelling - regardless of whether it is owned or rented	**626,984**	**166,507**	**69,820**	**38,885**	**14,330**	**28,803**	**945,329**
% of total HH	5.1%	1.3%	0.6%	0.3%	0.1%	0.2%	**7.6%**
E: Traditional dwelling - regardless of whether it is owned or rented	**1,133,113**	**210,203**	**37,341**	**20,298**	**17,998**	**23,722**	**1,442,675**
% of total HH	9.2%	1.7%	0.3%	0.2%	0.1%	0.2%	**11.7%**
F: Hostel	**181,202**	**108,658**	**53,512**	**7,598**	**1,986**	**3,508**	**356,464**
% of total HH	1.5%	0.9%	0.4%	0.1%	0.0%	0.0%	**2.9%**
G: Other	**33,582**	**9,704**	**5,300**	**3,295**	**1,165**	**3,483**	**56,529**
% of total HH	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	**0.5%**
Total (as at 2007)	**6,854,458**	**2,001,486**	**866,514**	**845,679**	**457,408**	**1,353,211**	**12,378,756**
% of total HH	**55.4%**	**16.2%**	**7.0%**	**6.8%**	**3.7%**	**10.9%**	**100%**
New family formation	***2,012,529***	***587,664***	***254,429***	***248,312***	***134,313***	***397,326***	***3,634,573***
Total (projected to 2020)	***8,866,987***	***2,589.150***	***1,120,943***	***1,093,991***	***591,721***	***1,750,537***	***16,013,329***
% of total HH as at 2007	***7.,7%***	***20.9%***	***9.1%***	***8.8%***	***4.8%***	***14.1%***	***129%***

Source: The household income data is based on data modelled by the Department of Economics at the University of Stellenbosch utilising the Community Survey of 2007.

Table 2: Housing circumstances: Metropolitan

Housing Circumstances	R 0-R 3,500	R 3,500 - R 7,000	R 7,000 – R 10,000	R 10,000 - R 15,000	R 15,000 – R 20,000	R 20,000+	Total
A: Formal – owned	**749,981**	**354,140**	**201,810**	**306,379**	**160,718**	**707,550**	**2,480,578**
% of total HH	14.7%	7.0%	4.0%	6.0%	3.2%	13.9%	**48.8%**
B: Formal - rented, plus Room/Flatlet not in backyard	**511,729**	**193,558**	**107,151**	**126,701**	**55,026**	**157,571**	**1,151,736**
% of total HH	10.1%	3.8%	2.1%	2.5%	1.1%	3.1%	**22.7%**
C: Informal settlement - regardless of whether it is owned or rented	**506,220**	**117,817**	**34,645**	**16,301**	**5,476**	**7,343**	**687,802**
% of total HH	10.0%	2.3%	0.7%	0.3%	0.1%	0.1%	**13.5%**
D: Backward dwelling - regardless of whether it is owned or rented	**358,177**	**102,871**	**40,903**	**25,308**	**8,456**	**21,153**	**556,868**
% of total HH	7.0%	2.0%	0.8%	0.5%	0.2%	0.4%	**11.0%**
E: Traditional dwelling - regardless of whether it is owned or rented	**57,167**	**14,719**	**4,309**	**2,721**	**772**	**2,949**	**82,637**
% of total HH	1.1%	0.3%	0.1%	0.1%	0.0%	0.1%	**1.6%**
F: Hostel	**66,899**	**22,835**	**11,388**	**2,097**	**680**	**986**	**104,885**
% of total HH	1.3%	0.5%	0.2%	0.1%	0.0%	0.0%	**2.1%**
G: Other	**12,095**	**3,101**	**1,427**	**1,854**	**386**	**1,557**	**20,420**
% of total HH	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	**0.4%**
Total	**2,262,268**	**809,041**	**401,633**	**481,361**	**231,514**	**899,109**	**5,084,926**
% of total HH	**44.5%**	**15.9%**	**7.9%**	**9.5%**	**4.6%**	**17.7%**	**100.0%**
New family formation	***925,770***	***331,087***	***164,370***	***196,996***	***94,754***	***367,944***	2,080,921
Total (projected to 2020)	***3,188,038***	***1,140,128***	***566,003***	***678,357***	***326,268***	***1,267,053***	***7,165,847***
% of total HH as at 2007	***62.7%***	***22.4%***	***11.1%***	***13,3%***	***6.4%***	***24.9%***	***140.9%***

Source: The household income data is based on data modelled by the Department of Economics at the University of Stellenbosch utilising the Community Survey of 2007.

Definition of applied household housing circumstances.

- *Formal owned:* households are occupying a formal house which they own and which generally meets minimum housing standards.
- *Formal rental:* households are occupying formal houses which they rent and which generally meet minimum housing standards.
- *Traditional dwellings:* households are living in traditional dwellings generally in tribal or rural areas.
- *Informal settlements:* households are living in informal accommodation in informal settlements. Most of these houses have no or substandard access to basic services (water, sanitation and electricity).
- *Backyard rental:* households are living in formal and informal dwellings erected in the backyard of existing formal houses. The dwellings are generally not in compliance with current planning and building regulations.
- *Hostels:* hhouseholds are living in single/family accommodation in hostel complexes. Much of this accommodation has substandard access to basic services (water, sanitation and electricity).

5. Overview of Housing Sector and Delivery in South Africa

The housing sector is concerned with the delivery of basic services and houses within a spatial framework that relies on good location and transport infrastructure to ensure sufficient access to services. Therefore, a functional housing sector comprises a complex relationship between market forces, private sector firms, governmental rules and regulations, financing and facilitative interventions, as well as inputs and investments by the households. The housing sector operates within an environment that is governed by rules and regulations (set through policy and legislation) and a legal framework that is enabled through a range of institutions and interventions set by the national government and applied by provincial governments, municipalities, development finance institutions, private sector banks and other actors (such as estate agents).

Since 1996, the state of South African housing has improved as a result of policies, rising income levels and direct government intervention. Between 1996 and 2011, the number of households living in brick or concrete houses, as a percentage of all types of main dwellings in South Africa, increased from 48 per cent to 65 per cent. Households are also switching from traditional dwelling types at a much higher rate. As Table 3 shows, the percentage of traditional dwellings decreased from 18 per cent in 1996 to eight per cent in 2011. However, almost 200 000 more households were living in informal dwellings in 2011 than in 1996. This reflects the difficulties associated with eradicating informal settlements and the shortcomings of informal settlement upgrading programmes.

Table 3: Profile of housing in South Africa (1996 to 2011)

Dwelling type	1996		2001		2011	
	No. HHs	**%**	**No. HHs**	**%**	**No. HHs**	**%**
House or concrete structure on a separate stand	4 331 586	48%	6 238 464	53%	9 384 029	65%
Traditional dwelling	1 644 388	18%	1 654 787	14%	1 139 917	8%
Flat in block of flats	458 167	5%	589 109	5%	720 327	5%
Town/cluster/semi-detached house	381 541	4%	319 864	3%	573 056	4%
Unit in retirement village	40 433	-	-	-	-	-
House/flat/room in backyard	483 460	5%	412 377	4%	422 849	3%
Informal dwelling/shack in backyard	403 329	4%	459 525	4%	712 955	5%
Informal dwelling/shack elsewhere	1 049 686	12%	1 376 708	12%	1 249 776	9%
Room/flatlet on shared property	139 632	2%	120 611	1%	118 984	1%
Caravan/tent	17 126	0%	30 610	0%	14 440	0%
other	128 054	1%	568 219	5%	113 827	1%
Total	**9 077 402**		**11 770 274**		**14 450 160**	

Source: Statistics South Africa: 1996; 2001 & 2011

5.1 Constitutional imperatives of housing

South Africa’s government is constitutionally mandated to ensure that everyone has access to adequate housing (Section 26 of the Constitution), and the State has an obligation to take reasonable legislative and other measures to achieve the progressive realisation of the right to housing. However, the Constitution does not outline these reasonable measures, and so the government’s role in fulfilling the right to housing is subject to different interpretations and expectations.

Constitutionally two critical points affect the definition: the meaning of ‘adequate housing’ and the timeframes that best satisfy ‘progressive realisation’ of needs. As ‘adequate housing’ is not clearly defined, the meaning depends on the household’s specific context and circumstance, and needs or priorities at a given time (Tissington, 2010). For a household to have access to ‘adequate housing’, certain conditions, including land, services and a dwelling, have to be met.

Given this understanding, before the government can fulfil its obligation, the household’s housing needs and income circumstances need to be fully understood so that the interventions introduced are relevant. Essentially, there are three types of households: those who cannot afford housing; those that are able to contribute towards their own housing needs; and those that can fully afford their own housing needs, through their own savings or mortgage bonds.

The State plays a facilitative role for those who can afford their own housing needs but may be expected to play a bigger role for the other two groups, including (but not limited to) providing full or partial subsidies. Given these diverse needs, some households may only need access to land, land and building material, finance, and services such as water, sewage, electricity and roads. All of these factors need to be taken into account when defining ‘adequate housing’. Furthermore, the State’s obligation to provide ‘adequate housing’ may differ from province to province, city to city, rural to urban areas and person to person (see the Grootboom case[9]).

‘Progressive realisation’ is also subject to varying interpretations. The South African courts interpret ‘progressive realisation’ as the act of dismantling a range of legal, administrative, operational and financial obstacles that block access to socio-economic rights (Tissington, 2010). The United Nations Committee on Economic, Social and Cultural Rights interprets ‘progressive realisation’ as a minimum core obligation from the State to ensure that everyone has access to at least a basic level of housing. Under this formulation, the State has an obligation to improve the quality of public services gradually until they reach a certain level. The other understanding of ‘progressive realisation’ of a housing right is formulated around Maslow’s hierarchy of needs, where housing needs are secondary to essential needs for services, such as land, water, sanitation and refuse removal. This interpretation is consistent with the current approaches to housing delivery in South Africa, such as upgrading informal settlements or providing sites and services. Examples of measurable benchmarks for ‘progressive realisation’ include the target of upgrading 500 000 shacks in informal settlements by 2014 through the provision of basic services and land tenure rights (Tissington, 2010).

5.2 Housing policy regimes in South Africa

Since 1994, the government has put in place housing policies and programmes to fulfil its constitutional obligation and respond to South Africa’s housing problems. The housing policy is targeted at meeting compensation promises rather than addressing the various dimensions of the housing market. As a result, the housing policy has been characterised by unbalanced, spur-of-the-moment and disconnected interventions carried out under three broad programmes: (1)

[9]Government of the Republic of South Africa and Others vs.Grootboom and Others (CCT11/00) [2000] ZACC 19; 2001 (1) SA 46; 2000 (11) BCLR 1169 (4 October 2000)

the Incremental Housing Programme,[10] (2) the Social and Rental Housing Programme[11] and (3) the Rural Housing Programme.[12] Housing policies have undergone significant reforms involving changes in delivery norms and standards, delivery models, orientation (quantity to quality) and income groups targeted. These reforms are classified into three major policy episodes corresponding to 1992 to 2003, 2004 to 2009 and 2010 to 2013.

5.2.1 Period one (1992 to 2003)

During this period, the principal housing policy was the White Paper on Housing and Housing Act (No. 107 of 1997), which was anchored on seven policy tenets: stabilisation of the housing environment, mobilising housing credit, providing subsidy assistance, rationalising institutional capacities, facilitating the speedy release and servicing of land, and coordinating government investment development.

The national housing subsidy developed in 1992. The programme's main goal was to deliver as many subsidised houses as possible (coverage), with over one million houses (RDP) targeted in the first five years. The target was met within a seven-year period. During this period, because local government structures were underdeveloped, the housing development projects were developer-driven[13] and paid for by conveyances. This approach ended towards 2003, as beneficiaries were allocated to the housing projects from a waiting list managed by provinces and municipalities.

Between 1992 and 2003, housing delivery challenges were characterised by complaints from beneficiaries about the size and quality of houses delivered, and complaints by constructors about the adequacy of the subsidy to build houses of the expected standard. National minimum norms and standards were developed to address these complaints and included size specifications of $30m^2$ and increasing the quantum of subsidy over time. As Figure 2 shows,

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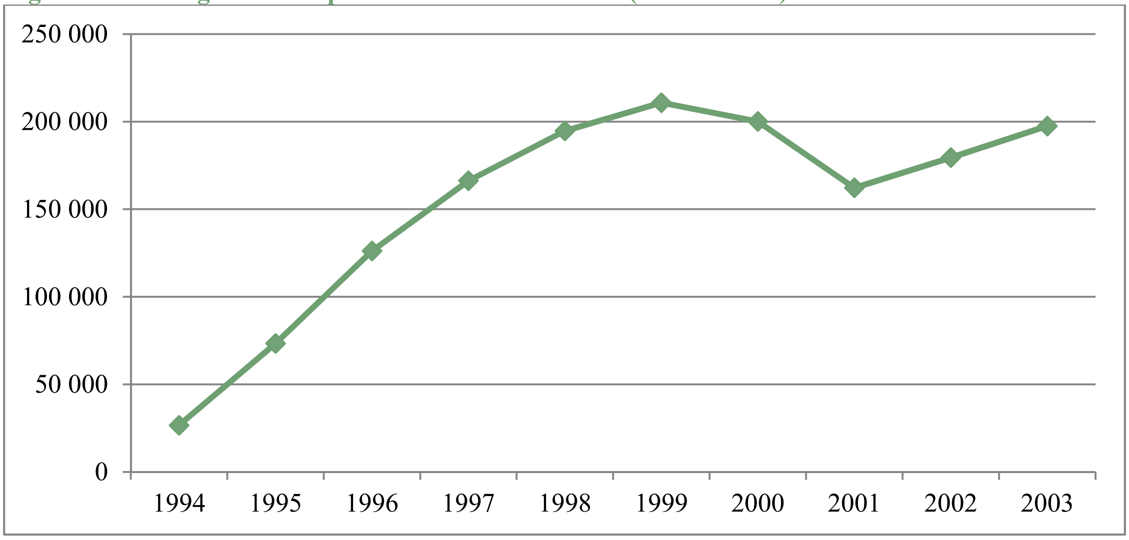
[10] Includes incorporated integrated residential development programme, enhanced people's housing process, and informal settlements upgrading, consolidation subsidies and emergency housing assistance.
[11] Includes institutional subsidies, social housing assistance and community residential units (hostels).
[12] Focuses on rural subsidies and housing assistance for farm residents.
[13] Private sector developers and contractors identified land for housing and implemented housing projects using the capital subsidy, with little or no involvement of the provinces and municipalities in issues such as structuring of projects.

housing delivery started very slowly in 1994, with only 20 000 units completed that year, and gradually improved, to reach over 200 000 units a year by 1999.

Figure 2: Housing units completed/under construction (1992 to 2003)



Source: Department of Human Settlements

5.2.2 Period two (2004 to 2009)

This period is characterised by the introduction of the Breaking New Ground (BNG) policy framework. BNG emphasised the delivery of sustainable human settlements, the need for integrated development and upgrading of informal settlements. It also placed increased emphasis on the process of housing delivery (the planning and engagement) and the long-term sustainability of the housing environment (Tissington, 2011). BNG was formulated to address previous challenges and was a shift from focusing on quantity to focusing on quality (the size, settlement design and alternative technology) and choice (including tenure type and location). During this period, the housing units delivered evolved significantly, to comprise a 40m^2 house with two bedrooms, a toilet with a washbasin, a kitchen with a basin, a wooden front door, a roof tile and fascia boards.

Other developments included the introduction of the FLISP in 2005 and the introduction of Social Housing Policy in 2005.[14] A Rental Housing Amendment Act (No. 43 of 2007) was also

[14] The FLISP is intended to provide support to households in their deposit obligations for mortgage finance in order to reduce the capital amount being borrowed and the interest charges associated with it. The Social Housing Policy on the other hand was introduced to fill a policy vacuum and address challenges in the social housing sector.

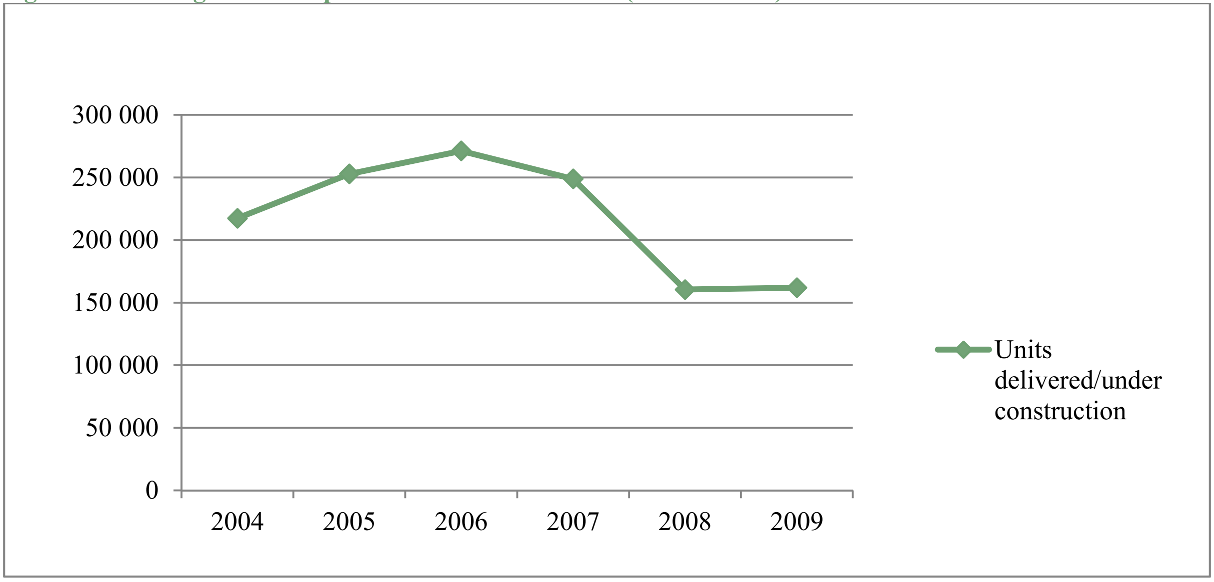
approved, amending the Rental Housing Act 1999 to provide for rulings by rental tribunals among other things. The Social Housing Act (No. 16 of 2008) establishes and promotes sustainable social housing environment and provides for the introduction of the Social Housing Regulatory Authority (SHRA).[15] In 2008 the National Rental Housing Strategy was approved, setting the delivery target of 100 000 rental housing units (75 000 social housing and 25 000 community residential units) by 2012.

In 2008 the National Upgrading Support Programme (NUSP) was established to assist provinces and municipalities in their efforts to upgrade informal settlements. The NUSP delivery pillars include water and sanitation, security of tenure and community empowerment. The programme's proposals were incorporated in the national and provincial delivery agreements and rolled out within 49 municipalities across the country.

As Figure 3 illustrates, housing delivery increased until 2006 and then decreased, reaching just over 150 000 units per year in 2008 and 2009. The decrease in the number of houses delivered is attributed to higher delivery norms ($30m^2$ to $40m^2$), the global financial crisis that started in 2007, the escalation of construction costs, and under-spending by provinces because of poor programme management. However, the delivery of rental housing units cannot be assessed because of a lack of data.

[15] SHRA regulates social housing institutions, among other things.

Figure 3: Housing units completed/under construction (2004 to 2009)



Source: National Treasury (2009) and Industry Insight (2011)

5.2.3 Period three (2012 to 2013)

In 2012 and 2013, the key housing policy developments included a revised National Housing Code in 2009, the adoption of Outcome 8[16] and the NDP. The Housing Code contains the principles, guidelines and norms and standards that apply to the government's various housing assistance programmes. It represents a shift, away from municipal-driven subsidy projects providing RDP houses in the informal settlements, to encouraging the development of a secondary housing market and providing subsidies within integrated areas.

In addition to the Housing Code, through Outcome 8 the government committed itself to upgrade 400 000 households living in informal settlements over a four-year period starting in 2010.[17] In 2012 the government announced a R1-billion state-guaranteed fund to promote access by households earning between R3,501 and R15,000 per month to housing loans to buy a house (newly built or for sale) costing R300,000 or less.

[16] Outcome 8 concerns sustainable human settlements and improved quality of households' life and has four outputs: upgrading 400 000 units of accommodation within informal settlements; improving access to basic services; facilitating the provision of 600 000 accommodation units within the gap market for people earning between R3, 500 and R12, 800; and mobilising well-located public land for low-income and affordable housing with increased densities.

[17] The four focus outputs are: accelerated delivery of housing opportunities, access to basic services, efficient use of land for human settlements and improved property market.

Another development was the NDP, whose objectives include a need to address the apartheid geographical and urban inefficiencies.[18] The number of housing units completed/under construction for 2010/2011 was 121 879 and 88 441 units for 2011/2012 (up to December 2011).

5.3 Housing finance instruments

Housing in South Africa is funded through household savings, state funding and private finance. State funding comprises municipal finance for infrastructure and subsidies/incentives to selected individuals. Private finance covers project finance for developers and end-user finance to households. The size of each funding source depends on specific circumstances, such as income levels, access to private finance, active property land and markets, and the State's appetite to fund housing. South Africa has an active formal property and mortgage finance market, which caters for the upper- and middle-income housing market and is granted by banks. The government, through a number of grants, continues to support housing opportunities for the low-income groups. For example, in 2011 the government spent more than R15-billion on housing, rising to R17, 9 billion in 2013/14. The Human Settlements Development Grant (HSDG) is one of the main grants and has many objectives including the financing of individual housing subsidies (full and partial), enhanced extended discount benefit scheme, social and economic facilities and rectification of pre- and post-1994 housing.

5.3.1 Mortgage finance

Mortgage finance is granted predominantly to households earning more than R15, 000 per month, as Figure 4 shows. This income group accounts for just over 80 per cent of private housing finance, with the remainder going to those earning between R7, 500 and R10, 000 per month. Mortgage finance to households with a monthly income below R7, 500 is almost non-existent. According to the household credit access frontier[19], households with a monthly income of between R3, 500 and R7, 500 can qualify for a mortgage bond of between R140,

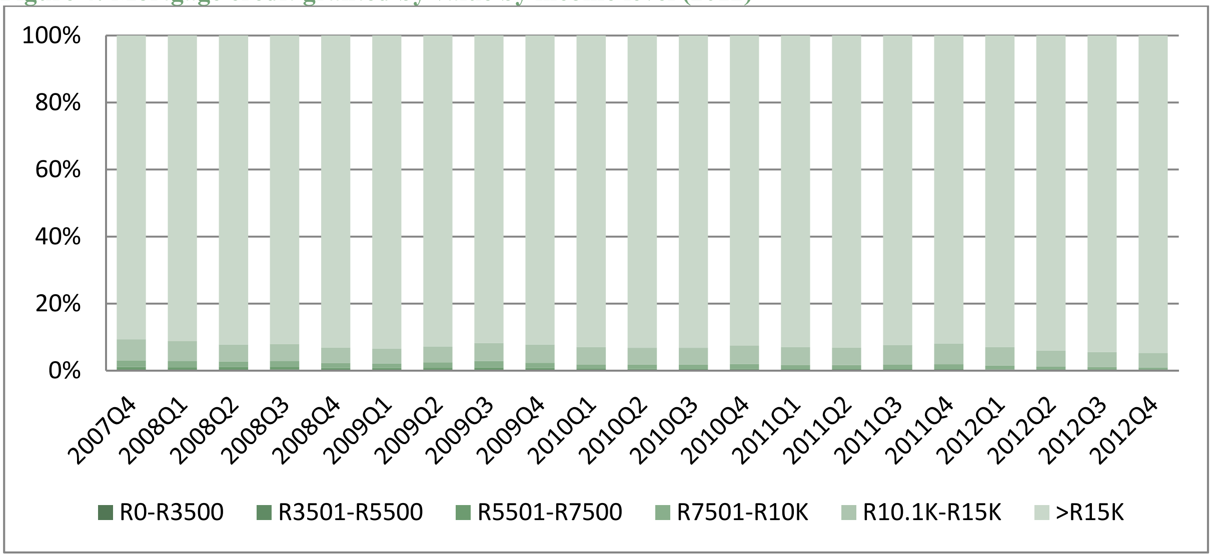
[18] Some of the suggestions contained in the NDP include:

- Urban sprawl should be contained, and possibly reversed, as denser forms of development are more efficient (on land usage);
- Special incentives and subsidies should be designed to make affordable, large-scale, high-density housing possible in inner cities; and
- New urban development and infrastructure investment around corridors of mass transit and around existing and emerging economic nodes.

[19] Credit access frontier measures the ability of a household to access credit facility.

000 and R300, 000 depending on the interest rate and credit-worthiness. The National Credit Regulator (NCR, 2012) found that, of the total value of mortgage bonds granted, less than 10 per cent are below R350, 000. The view from the Commission's public hearings was that either banks are reluctant to fund affordable properties or the supply/stock of affordable homes is insufficient.

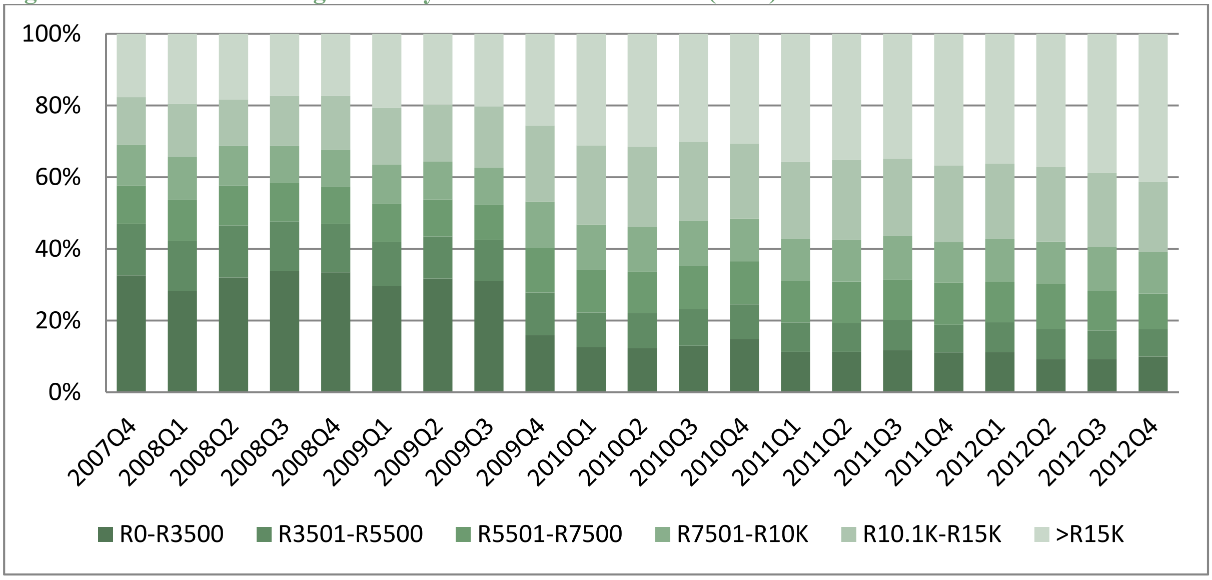
Figure 4: Mortgage credit granted by value by income level (2012)



Source: National Credit Regulator (2012).

Figure 5 shows that low-income groups account for a significant proportion of total unsecured lending (NCR, 2012), accounting for 60 per cent of the value of unsecured credit in 2007, declining to 40 per cent in 2012. However, the extent to which low-income households, especially those not eligible for fully subsidised houses, use unsecured lending to contribute to their housing needs is unclear. As noted earlier, the prevailing view is that households that fall in the gap between those eligible for a subsidy and those who qualify for mortgage (the gap market) are inadequately catered for.

Figure 5: Unsecured credit granted by value and income level (2012)



Source: National Credit Regulator (2012).

5.3.2 State-financed housing instruments

The main conditional grant for housing delivery is the HSDG, which is transferred to all provinces using a formula that takes into account various socio-economic attributes. Gauteng, KwaZulu-Natal and the Western Cape account for 50 per cent of HSDG allocations (see Figure 7). Provinces are responsible for managing, implementing and transferring the grant to municipalities, depending on accreditation[20] levels. A large number of municipalities depend on this grant for housing delivery because they lack the capacity to raise their own revenue. Figure 6 shows the annual HSDG allocation since 2002. The grant has grown from just under R5-billion in 2002 to R20-billion in 2016. During the years under scrutiny, on average over 90 per cent of the grant was spent. The inability to spend 100 per cent of the grant is often due to administrative inefficiencies and a fragmentation of funding and functions for built environment. For instance, funding for complementary housing infrastructure − i.e. bulk service funding and the municipal infrastructure grant (MIG) − is scattered across various government departments whose planning activities are not always synchronised.

[20] Municipalities in South Africa are accredited to administer the housing function and associated funds depending on their capacity levels. There are three accreditation levels, with the highest involving full administration of housing activities.

Figure 6: HSDG allocation (2002 to 2016)

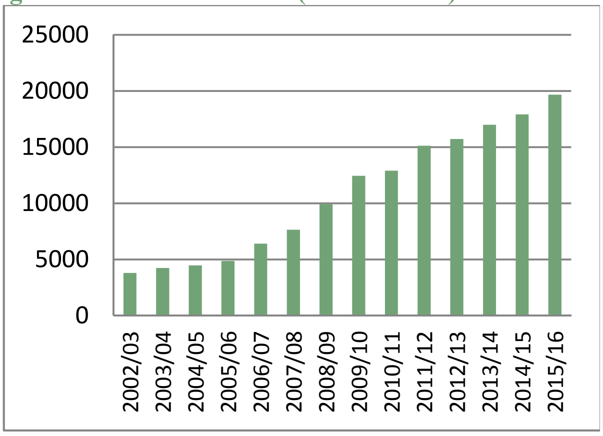
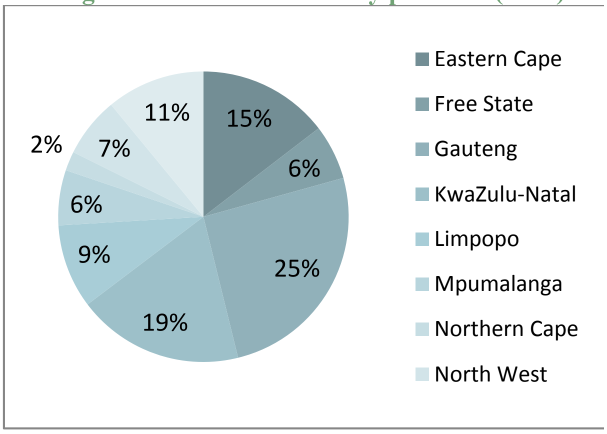


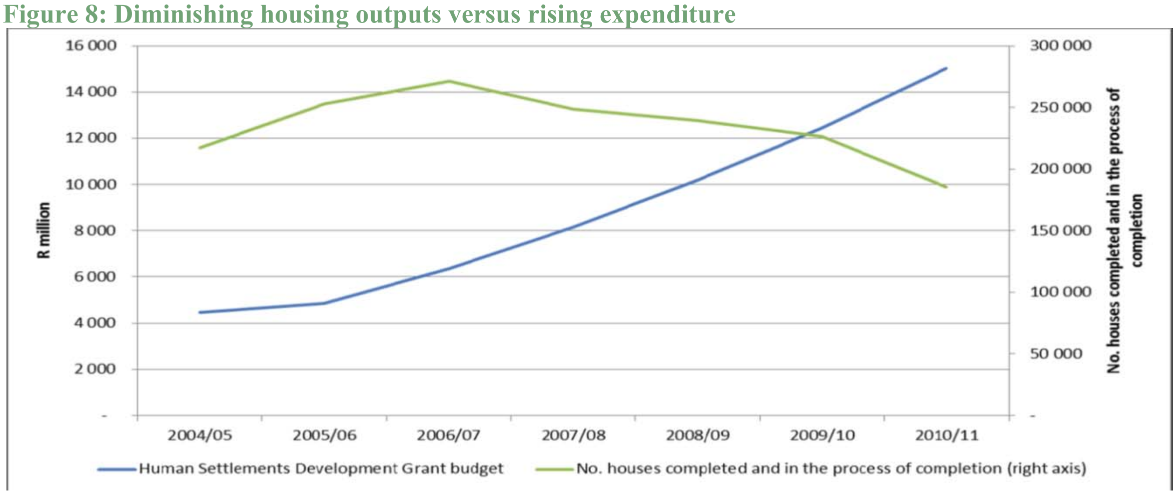
Figure 7: Share of HSDG by province (2012)



Source: National Treasury (2012 and 2013) and Department of Housing Settlements (2012)

Notwithstanding a healthy and positive HSDG allocation trajectory, Figure 8 depicts a disturbing trend: a trade-off between rising allocations and the number of housing units delivered. Since 2005 housing allocations have increased but the output has been declining, implying diminishing marginal returns. Although the underlying causes of this cannot be established with certainty, available anecdotal evidence points to rising and inflated construction costs, higher delivery norms and standards, pure inefficiencies and an inability of the DoHS to account for housing units delivered. This trend is an early signal of fiscally unsustainable housing delivery by government. Reversing the trend will require a concerted effort to restructure the entire housing finance and delivery chain.

Figure 8: Diminishing housing outputs versus rising expenditure



Source: National Treasury, 2011

5.3.3 Complementary housing finance instruments

In addition to the HSDG, the government finances other elements of housing delivery through location-specific and targeted conditional grants, such as the Rural Households Infrastructure Grant (RHIG)[21] and the Urban Settlement Development Grant (USDG).[22] The RHIG and USDG were introduced in 2010/2011 and 2011/2012 respectively, as part of evolving housing finance reforms. Since their introduction, the spending performance of both the RHIG and USDG has been poor, as shown in Tables 4 and 5. By March 2012, total expenditure for the 2011/2012 financial year stood at 72 per cent for the RHIG and 44 per cent for the USDG. Under-spending on RHIG has resulted in reduced baseline allocations for 2012/2013, as shown in Table 2, further undermining the achievement of housing policy objectives.

Table 4: Allocation and spending for Rural Households Infrastructure Grant (2010/11 to 2013/14)

Financial year	Total allocation R'000	Total spending R'000	Spending as a percentage of total allocation
2010/11	100	66.7 (by Mar 2011)	66.7%
2011/12	258	187 (by Mar 2012)	72.4%
2012/13	340.6 (479.5 reduced by 138)	61 (by Jan 2013)	17.9%

Source: National Treasury and Department of Human Settlements[23]

[21]The RHIG is intended to fund the provision of onsite water and sanitation infrastructure in rural municipalities.

[22] The aim of the USDG is to assist metropolitan municipalities, supplementing their revenue to subsidise the capital costs of acquiring urban land, increase supply of well-located land, improve spatial density, and provide basic services.

[23] Unpublished data requested from the National Treasury.

Table 5: Urban Settlements Development Grant spending as at 31 March 2012

Municipality	Total R'000 2011/12	Spent by 31/03/2012 R'000 percentage		Total R'000 2012/13	Spent by 31/01/2013 R'000 percentage	
Buffalo City	423,446	796,99	19%	499,474	111,862	22%
Nelson Mandela	502,626	314,922	63%	592,870	226,135	38%
Mangaung	411,995	163,153	40%	485,967	244,416	50%
Ekurhuleni	1,094,276	504,305	46%	1,212,537	455,922	38%
City of JHB	1,027,970	470,176	46%	1,290,748	273,624	21%
City of Tshwane	891,081	349,874	39%	1,051,070	460,938	44%
EThekwini	1,091,574	558,323	51%	1,287,560	274,801	21%
City of Cape Town	824,030	287,972	35%	971,980	344,867	35%
Total	6,266,998	2,728,424	44%	7,392,206	2,392,565	45%

Source: Department of Human Settlements (2012) and the National Treasury[24]

5.4 Past Commission recommendations on housing finance

Some of the challenges raised during the public hearings are in line with the Commission's previous research and recommendations. The public hearings revealed that the key factors affecting the performance of housing programmes include problems with the design of the subsidy, institutional arrangements, and the policy and legislative framework. In its 2008 Submission, the Commission highlighted inefficiencies associated with fragmented housing funding and planning, and land-use management. The Commission recommended fast-tracking the accreditation of municipalities to carry out the housing function as a remedy to the planning and cash-flow challenges. Currently, these recommendations are at an advanced stage for implementation by the DoHS, which intends assigning the housing function to six metros.[25]

Other recommendations made by the Commission include the following:

[24] Unpublished third quarter performance requested from the National Treasury.

[25] The Commission has tabled to the DoHS a detailed submission on its position of shifting the housing function to six metros.

- The government should consider the funding implications of any further policy changes.
- Consideration should be given to linking new housing subsidies with the MIG.
- The government should review the effectiveness of current housing finance arrangements in meeting housing needs within the context of creating sustainable and more compact human settlements.

The government has responded positively to a number of these recommendations, which have not yet been implemented.

6. The Model and Limitations

The quantitative results of this report are based on a financial model which used the 2007 Community Survey demographic data; financial parameters on subsidy amounts, mortgage unsecured credit, monthly rental and insurance; and cost data on land, infrastructure per service level and construction for different building standards and professional costs. Results of the model are calibrated over an 8-year horizon up to 2020[26] and take into account new family formations.

Figure 9 describes the model. First, households are disaggregated into seven different housing circumstances. Second, a total of 31 interventions [supply (18), demand (10) and investment (3)] are applied to different housing circumstances, depending on current policy, income levels and appropriateness.[27] Due to similarities in certain housing circumstances, some interventions overlap more than one circumstance. Interventions are grouped into four policy scenarios: historic practice, lowest cost to the State, formalisation of informality or Outcome 8, and the NDP. The scenarios allow an optimal policy combination to be developed for consideration by the government. They are then evaluated in terms of total cost to the State, required contributions by households and the private sector, total number of households reached and assisted, and additional hectares of land required.

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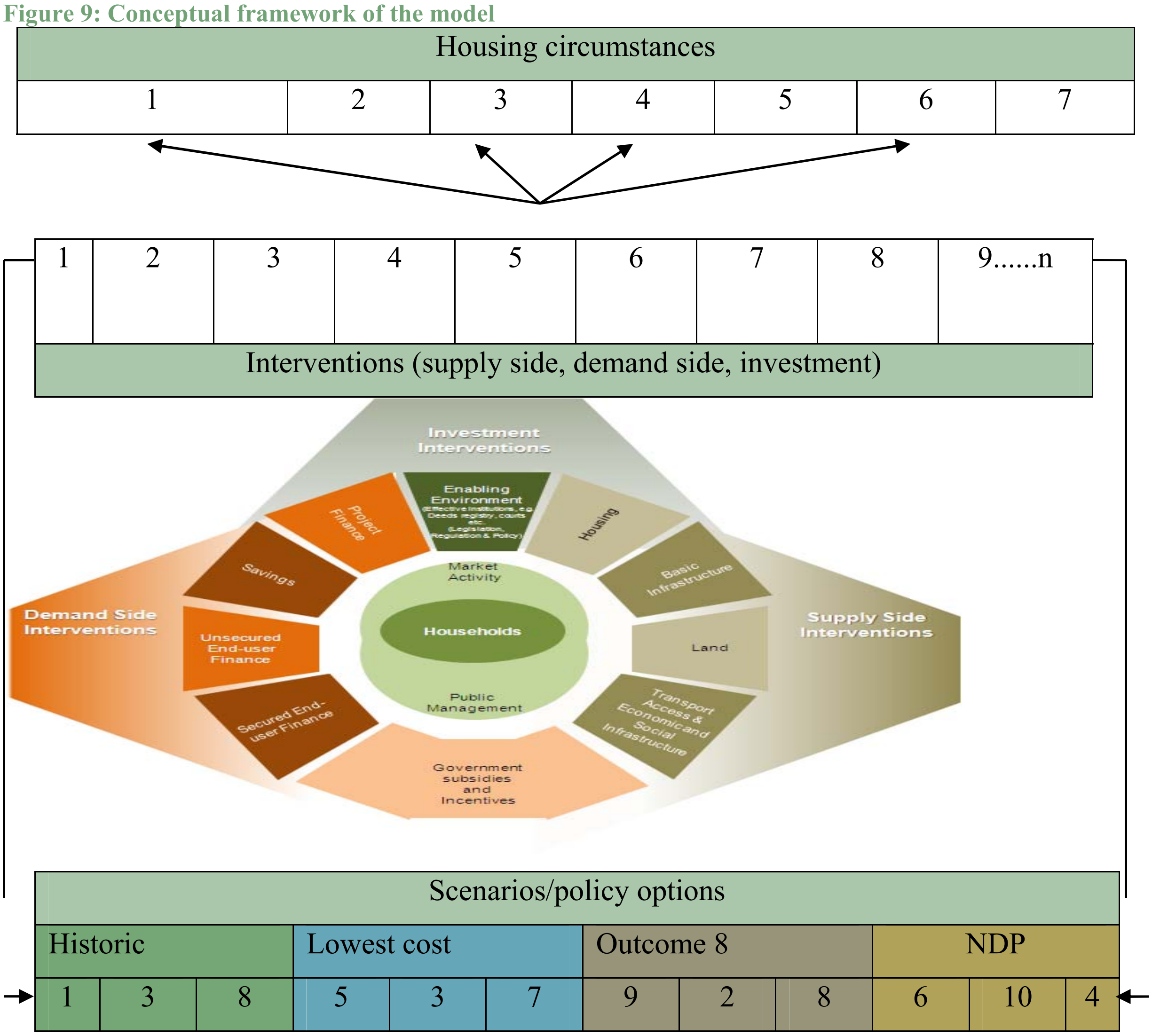
[26] Projected growth rates are taken from UNISA BMR, Population and Household Projections for South Africa by Province and Population Group, 2001‒2021.

[27] Supply-side interventions are activities in housing that is being supplied to households, for example housing subsidy and the provision of land/site and services schemes. Demand-side interventions refer to programmes that result households being able to afford/access houses of higher standards. Investment interventions are activities aimed at stimulating increased investment into housing, such as tax rebates.

Figure 9: Conceptual framework of the model



Using this model, various housing finance and policy options for South Africa are analysed. The modelling undertaken is unique, as it analyses existing and new supply-side, demand-side and investment interventions in the housing sector, taking into consideration both public and private sector funding and investment. The intention is to review existing and potential housing interventions holistically, in terms of their performance and appropriateness in addressing the needs of people in different housing circumstances. The review takes into account the limited role of the State and the potential for the crowding-in of household savings and private finance. Each intervention is applied to a relevant housing circumstance and further evaluated based on the total required cost disaggregated into State, household and private sector contributions. Each intervention is evaluated in terms of overall impact on households, contribution towards integrated and equitable cities, market distortion and contribution towards an effective housing market.

The last step in the model involves packaging the different interventions into broad policy scenarios, which can be adopted or realigned to address housing challenges holistically and with the available funding. The four scenarios considered are: historic practice, low cost to the State, Outcome 8 and the NDP.[28]

The model does not take into account variables, such as inflation, interest rate fluctuations and exchange rates, which may have an impact on the outcome for each intervention. The model deals with generic cost inputs reflecting average prices; no assumptions are made about the availability of land and the administrative capability to deliver the housing interventions. Resources (materials, water, electricity, etc.) are assumed to be unlimited. To calculate affordability and access to credit, various general assumptions have been made that may vary from one credit provider to another. In addition, due to the lack of details for each income category, an average income for all households within each category has been used.

[28] Historical practice focuses on the provision of subsidy-linked housing units (large- and medium-scale RDP housing projects), social housing rental stock, lower end mortgage-financed housing (with a FLISP subsidy). Low cost to the State combines interventions within each housing circumstance that have the lowest cost to the State. Outcome 8 concerns formalising informality within urban centres. The NDP combines interventions that focus on creating a more compact, efficient and equitable city.

7. Modelling Results

7.1 Profile of housing needs in South Africa

The starting point of this analysis involves scoping the housing needs and categorising households into different housing circumstances. Housing circumstances refer to household conditions in terms of tenure, income, the nature and condition of the housing stock and services accessed. Table 1 shows the total number of South Africans according to their housing circumstances. Forty-six per cent of all South Africans live in formal houses, and 21 per cent of households earning less than R3, 500 per month have formal houses. A relatively high percentage of low-income groups live in 'inadequate housing', such as informal settlements and backyard dwellings: at least 7.3 per cent of households earning less than R3, 500 per month stay in informal settlements. Households in the gap market (with incomes of between R3, 500 and R15, 000) are found across various housing circumstances but are mainly concentrated within formal owned and formal rental dwellings. Although about 27 per cent of households in this income group have less than adequate housing circumstances, the majority are able financially to meet fully or partially their housing needs.

The diversity of housing circumstances across all income groups has important implications for housing finance and delivery, suggesting that each household requires circumstance-specific housing interventions. Some interventions require complete state funding, while others require a combination of state, household and private contributions. Table 4 includes projected new family formations up to the year 2020. New family formations are estimated at 3.6 million, with approximately 55 per cent falling within the income category of less than R3, 500 per month.

7.2 Supply-side interventions

Supply-side interventions are programmes or activities that result in housing being supplied to households by the government. A total of 21 supply-side interventions have been considered and are applied to four housing circumstances disaggregated by income level, as set out in Table 6. For households within formal owned, formal rented and traditional dwellings, the intervention required is connection of services where backlogs exist. This intervention is applicable to households of all income groups and borne entirely by the State. Households falling within informal settlements may be eligible for six interventions (listed in Table 6) and the total cost may be borne by a combination of State, household and private sector contributions. For example, the option of site and service with incremental top structure involves the State providing land/stand with services, while the household takes care of the top structure using a combination of own savings and borrowing where necessary.

Table 6: Supply interventions by housing circumstance and income

Housing circumstance/Income category	R0–R3,500	R3,500–R7,000	R7,000–R10,000	R10,000–R15,000	R15,000–R20,000	R20,00
Formal, owned Formal, rented Traditional dwelling	Nat: 41.4%	12.3%	5.5%	6.2%	3.4%	10.6%
	Metro: 25.9%	11.1%	6.2%	8.6%	4.3%	17.1%
	Service connection to backlog – water, sanitation, electricity					
Informal settlements	Nat: 7.3%	1.6%	0.5%	0.2%	0.1%	0.1%
	Metro: 10.0%	2.3%	0.7%	0.3%	0.1%	0.1%
	In-situ upgrade of informal settlement with formal top structure					
	In-situ upgrade of informal settlement with incremental top structure					
	Site and service with formal top structure					
	Site and service with incremental top structure					
	Admin incorporation of informal settlements (basic level of service, no top structure)					
	RDP housing					
Backyard dwelling	Nat: 5.1%	1.3%	0.6%	0.3%	0.1%	0.2%
	Metro: 7.0%	2.0%	0.8%	0.5%	0.2%	0.4%
	Upgrade of backyard rental (with incentive)					
	RDP housing					
New family formation and housing ladder	Nat: 2,012,529	587,664	254,429	248,312	134,313	397,32
	Metro: 925,770	331,087	164,370	196,996	94,754	367,94
	RDP housing					
	Site and service with incremental top structure					
	Subsidised social rental (SHRA) (apartment)					
	Social housing institution / privately developed rental with an incentive					
		Privately developed residential rental (apartment)				
		Developer delivered formal house for ownership				
	Privately developed bonded RDP house					
	Sub-divided formal house for ownership with incentive					
	Household rental (formal apartment with incentive)					
	Private converted industrial space to residential units					

7.2.1 Formal owned, formal rented and traditional dwellings

The total number of households living in formal owned, formal rented and traditional dwellings nationally is approximately 9.8 million, of which 3.7 million live in metropolitan municipalities. Interventions applicable for these households are mainly related to water, sanitation and electricity connections, would cost between R50-billion and R200-billion (depending on varying service levels) and would be borne entirely by the State (for assumed costs of delivering these services at different levels please see Table 19 of Annexure B). This intervention comes at a significant cost to the State because households make little or no contribution and gearing levels are low. However, service connections have the greatest impact in terms of coverage and developmental outcomes: access to basic services reduces most environmental and health hazards associated with poor sanitation and low-quality water.

7.2.2 Informal settlements

The total number of households living in informal settlements nationally is approximately 1.2 million of which 688 000 live in a metropolitan municipality. Interventions applicable for these households are shown in Table 7, with the cost of each intervention disaggregated in terms of relative funding contribution from the State, households and private sector, as well as the overall impact on households.

The interventions that have the highest impact on households are in-situ upgrading of informal settlements with formal top structure, site and service with a formal top structure, and subsidised RDP housing. However, these interventions are associated with the highest cost to the State, create significant market distortions because of crowding out the private sector and do not contribute to effective housing markets. Of all the interventions, the least overall impact on households is from in-situ upgrading of informal settlements with an incremental top structure, and site and service with an incremental top structure. The overall impact is lower for households with incomes below R3, 499 than for those with incomes above this amount because of high levels of household indebtedness and an inability to access end-user finance. However, these interventions have the lowest cost to the State and the highest gearing.

Compared to in-situ upgrading of informal settlements with formal top structure, site and service and complete RDP housing, the administrative incorporation of informal settlements with no top structure intervention has a slightly modest level impact on households, but at a significantly lower cost to the State. The estimated total cost of administrative incorporation is R29-billion. This intervention is premised on shifting the paradigm, so that informality is accepted as part of the solution to housing, in light of the growing unevenness in number of RDP houses delivered and people living in informal settlements. There are no significant differences between the national and metropolitan analysis with the exception that the unit cost is slightly higher in metropolitan municipalities (see Table 8 for metros).

Table 7: Informal settlements −national

Interventions	Arena	Unit cost (R)	Total cost of intervention for all households assisted (R billion)	Total funding contribution			Evaluation			
				State (%)	Private (%)	House-holds (%)	Overall impact on households (%)	Contribution towards integrated, inclusive & equitable cities	Market distortions	Contribution to effective housing market (%)
In-situ upgrading of informal settlements with formal top structure	Informal settlement	129,707	156,0	100	0	0	100	● (Good)	● (Significant)	0
Site and service with formal top structure	Periphery	132,805	159,7	100	0	0	100	● (Poor)	● (Significant)	0
In-situ upgrading of informal settlements with incremental top structure	Informal settlement	139,367	46,9	23	0	77	R0−3,499:19 All other HH: 54	● (Good)	● (Average)	3.4
Site and service with incremental top structure	Periphery	142,465	47,8	23	0	77	R0−3,499:19 All other HH: 54	● (Poor)	● (Average)	3.3
Administrative incorporation of informal settlements with no top structure	Informal settlement	24,295	29,2	100	0	0	100	● (Partial)	● (Average)	0
Subsidised (RDP) housing	Periphery	134,200	161,4	100	0	0	R0−R3,499: 100 All other HH: 0	● (Poor)	● (Significant)	0

Table 8: Informal settlements - Metropolitan[29]

Interventions	Arena	Unit Cost (R)	Total cost of intervention (all assisted HH) R bil	Total funding contribution			Evaluation			
				State (%)	Private (%)	HH (%)	Overall Impact on Households %	Contribution towards integrated, inclusive & equitable cities	Market Distortions	Contribution to effective housing market
Insitu upgrading of informal settlements with formal top structure	Infill or township	131,772	90,6	100	0	0	100%	(Good)	(Significant)	0
Site and service with formal top structure	Periphery	137,967	94,9	100	0	0	100%	(Poor)	(Significant)	0
In situ upgrading of informal settlements with incremental top structure	Infill or township	141,432	27,7	24	0	76	R0 to 3,499 -19% All other HH – 54%	(Good)	(Average)	3,2
Site and service with incremental top structure	Periphery	147,627	28,9	27	0	73	R0 to 3,499 -19% All other HH – 54%	(Poor)	(Average)	2,7
Administrative incorporation of informal settlements with no top structure	Infill or township	26,360	18,1	100	0	0	100%	(Partial)	(Average)	0
Subsidised (RDP) housing	Periphery	141,575	92,3	100	0	0	100%	(Poor)	(Significant)	0

[29] National figures have been revised to accommodate for Metropolitan circumstances as follows: Land prices have been adjusted and backlog connections have been moved from basic to medium. All other costs are the same.

7.2.3 Backyard dwellings

The total number of households living in backyard rental is approximately 945 000, of which 57 000 live in metropolitan municipalities. The majority earn between R0 and R3, 499 per month. As Table 9 shows, the two interventions deemed appropriate are either relocating the households to subsidised RDP housing or owner-upgraded backyard rental units (with incentives). Subsidised RDP housing has a higher impact on all households but imposes a significant cost to the State. When owners are given a sliding scale incentive to upgrade their backyard rental units to a prescribed minimum standard, the outcome is a significant cost reduction to the State, improved gearing levels from households and better developmental outcomes.

Table 9: Backyard rental –national

Interventions	Arena	Unit cost (R)	Total cost of intervention for all households assisted (R billion)	Total funding contribution			Evaluation			
				State (%)	Private (%)	Households (%)	Overall impact on households (%)	Contribution towards integrated, inclusive & equitable cities	Market distortions	Contribution to effective housing market
Subsidised (RDP) housing	Periphery	134,200	126,8	100	0	0	100	● (Poor)	● (Significant)	0
Upgrade of backyard rental (with incentive)	Existing suburbs	R0–R9,999: R68,912 >R10,000: R79,412	66	R0–R9,999: 81 >R10,000: 70	0	R0–R9,999:63 >R10,000:68	100	● (Good)	● (Average)	R0–R9,999:0.8 >R10,000:1

Table 10: Backyard rental: Metropolitan

Interventions	Arena	Unit Cost (R)	Total cost of intervention (all HH assisted) R bil	Total funding contribution			Evaluation			
				State (%)	Private (%)	HH (%)	Overall Impact on Households %	Contribution towards integrated, inclusive & equitable cities	Market Distortions	Contribution to effective housing market
Subsidised (RDP) housing	Periphery	141,575	74,7	100	0	0	100%	● (Poor)	● (Significant)	0
Upgrade of backyard rental (with incentive)	Existing suburbs	R0 to R9,999 – R68,912 >R10,000 – R79,412	39	R0 to 9,999 – 81% > R10,000 – 70%	0	R0 to 9,999 - 63% > R10,000 – 68%	100%	● (Good)	● (Average)	R0 to 9,999 – 0.8 > R10,000 – 1

National figures have been revised to accommodate for Metropolitan circumstances as follows: Land prices have been adjusted and backlog connections have been moved from basic to medium. All other costs are the same.

There are no significant differences between national and metropolitan municipalities (Table 10) with the exception that the unit cost is slightly higher in metropolitan municipalities.

7.2.4 New family formation and the housing ladder

The model estimates 3.6 million new households in South Africa by 2020, of which 2.1 million will be living in metropolitan municipalities. Table 11 gives a breakdown of these households into income categories: more than two million households fall within the eligibility threshold for fully subsidised housing (<R3, 500 per month). For this specific circumstance, provision is made for households to move up the housing ladder through a choice of extended housing options, such as subsidised social rentals (apartment), privately developed residential rentals (apartment) and social housing or private rental apartments with an incentive. Other housing interventions for moving up the ladder include (1) household rental apartment with incentive; (2) industrial space privately converted to residential units; (3) developer-delivered formal house for ownership; (4) privately developed bonded RDP house and (5) sub-divided formal house for ownership with an incentive.

Table 11: New household formations

Total	R0–R3,499	R3,500–R6,999	R7,000–R9,999	R10,000–R14,999	R15,000–R19,999	R20,000+
No of households: 3,634,573 (national)	2 012 529	587 664	254 429	248 312	134 313	397 326
No of households : 2,080,921 (metros)	925 770	331 087	164 370	196 996	94 754	367 944

The cost implications of the housing ladder interventions vary widely, depending on the intervention chosen. For example, a subsidised social rental costs the State more than a privately developed residential rental with or without incentives. Furthermore, the impact of housing ladder interventions improves as income increases, as these interventions rely on household income levels. Households earning less than R3, 500 per month are normally unable to move up the housing ladder because they cannot afford it or cannot access credit. In contrast, for households with income of between R7,000 and R15,000 a month, 54 per cent can be reached through housing ladder interventions, which contribute significantly to gearing and effective housing market.

In conclusion, State-funded, supply-side options have a more positive impact, at high costs to the State, and are more likely to negatively distort markets. When households and the private sector provide funding, the most significant constraint to overall impact is the low levels of household credit-worthiness. When the State provides all the funding, the most significant constraint to overall impact is the State's ability to sustain the levels of funding. Incremental housing delivery (for example site and service with an incremental top structure or backyard upgrading) is more expensive in terms of overall cost but more flexible for households (in terms of their ability to invest and to mobilise support from family and friends). It also results in substantial savings to the State, enabling funds to be re-deployed to demand-side interventions.

7.3 Demand-side interventions

Demand-side interventions include programmes that result in households being able to afford/access houses of higher standards or size. Table 12 provides a breakdown of demand-side interventions in terms of housing circumstances and income levels. Demand-side interventions do not apply directly to housing circumstances but rather to categories of supply-side interventions (i.e. incremental housing opportunities, the bonded housing market and privately developed residential rentals, etc.). These interventions are underpinned by the principle of cost sharing and incentives, which stimulate investment in incremental housing, the new and resale market for affordable housing, and affordable formal rental stock.

Table 12: Demand interventions by housing circumstance and income

<table>
<tr><th>Housing circumstance – type of housing</th><th>R0–R3,500</th><th>R3,500–R7,000</th><th>R7,000–R10,000</th><th>R10,000–R15,000</th><th>R15,000–R20,000</th><th>R20,000+</th></tr>
<tr><td rowspan="2">Incremental housing</td><td colspan="3">Housing vouchers</td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Aggregated retail credit risk underwriting</td><td></td><td></td><td></td></tr>
<tr><td rowspan="7">Formal-owned, developer-delivered houses. First-time home buyer only</td><td colspan="3">Mortgage tax deduction</td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Savings-linked mortgage subsidy capital amount</td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Savings linked mortgage subsidy capital amount with credit rehabilitation programme</td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Interest rate subsidy for targeted mortgage loans</td><td></td><td></td><td></td></tr>
<tr><td colspan="4">FLISP adjusted</td><td></td><td></td></tr>
<tr><td colspan="3">Mortgage deposit guarantee</td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Capital payment to mortgage bank – admin subsidy</td><td></td><td></td><td></td></tr>
<tr><td>Privately developed residential rental</td><td colspan="2">Rental voucher</td><td></td><td></td><td></td><td></td></tr>
</table>

Table 13 shows the cost and impact of demand-side interventions. The housing voucher and aggregated retail credit risks both have a positive effect on households earning below R3, 500 per month but less influence on households earning above that income level due to credit-worthiness. The housing voucher performs best in terms of impact, leakage and administrative effort. The interest rate subsidy for targeted mortgage loans performs best and has a high impact, with low leakage and medium administrative effort. Performing second best is the savings-linked mortgage subsidy capital amount with credit rehabilitation, which has a high impact and medium leakage and administrative effort. Tax deductibility of mortgage instalments is not effective in improving overall impact. This is because the households that most need support are paying little or no personal income tax. Risk underwriting of unsecured credit and of secured loans (deposit guarantees) is cost effective. This conclusion only applies when the beneficiaries of the risk intervention (generally the lenders rather than the borrowers) recognise and pay for the intervention.

Table 13: Demand-side interventions

Description of intervention	Income bracket	FLISP (current policy)	FLISP impact	Capital value (increased)	Capital value (original)	Impact (post increased incentives)	Impact (original post)	Impact (pre) as per supply -side result	Impact	Leakage	Admin effort	Commentary
Housing vouchers	R0–R3,499			R75,000	R50,000	54%	36%	19%	High	Low	Med	Overall impact of the intervention is not influenced by household credit-worthiness or affordability level. The overall impact is therefore 100% of the value of the voucher (assuming 0% leakage). The intervention is administratively efficient and, once established, able to be maintained without effort.
	R3,500–R6,999			R50,250	R33,500	54%	54%	54%				
	R7,000–R9,999			R37,500	R25,000	54%	54%	54%				
	R10,000–R14,999											
	R15,000–R19,999											
	R20,000+											
Aggregated retail credit risk underwriting	R0–R3,499			R2,435	R1,740	24%	22%	19%	Med	Med	Low	Overall impact improves as a result of the reduced interest rate payable on the unsecured loans. The interest rate is assumed to reduce from the current interest rate cap of 28.7% to 18.7% for 6x12 month loans (less reduced admin cost). Administrative processes will need to be established to limit leakage.
	R3,500–R6,999			R3,128	R2,235	54%	54%	54%				
	R7,000–R9,999			R3,485	R2,490	54%	54%	54%				
	R10,000–R14,999											
	R15,000–R19,999											
	R20,000+											
Mortgage tax deduction	R0–R3,499	R-	12%				12%	12%	Low	Low	Low	Very easy to implement via South African Revenue Services. However, the overall impact of the intervention is very limited due to the average tax rates for individuals earning less than R10, 000 per month.
	R3,500–R6,999	R75,525	47%		R660		34%	33%				
	R7,000–R9,999	R53,588	54%		R3,585		47%	45%				
	R10,000–R14,999	R26,588	54%									
	R15,000–R19,999											

Description of intervention	Income bracket	FLISP (current policy)	FLISP impact	Capital value (increased)	Capital value (original)	Impact (post increased incentives)	Impact (original post)	Impact (pre) as per supply -side result	Impact	Leakage	Admin effort	Commentary
	R20,000+											
Savings-linked mortgage subsidy capital amount	R0–R3,499	R-	12%	R75,000	R50,000	16%	14%	12%	Med	Low	High	HHs rewarded fixed capital contribution to be deduced from interest payments if HH reaches saving target. Savings target is equal to 50% of normal mortgage instalment for 36 months for each of the HH income brackets. Impact is limited unless credit impairment is fundamentally changed.
	R3,500–R6,999	R75,525	47%	R50,250	R33,500	41%	38%	33%				
	R7,000–R9,999	R53,588	54%	R37,500	R25,000	51%	49%	45%				
	R10,000–R14,999	R26,588	54%									
	R15,000–R19,999											
	R20,000+											
Savings-linked mortgage subsidy capital amount with credit rehabilitation	R0–R3,499	R-	12%	R75,000	R50,000	18%	16%	12%	High	Med	Med	As for above, plus incentive of R6,000 to be paid to debt councillors to encourage rehabilitation of targeted HHs. Impact significant on the assumption that 10% of targeted HH are rehabilitated over three-year period during which the HH takes advantage of the savings incentive. Credit-worthiness improves from 54% to 64%.
	R3,500–R6,999	R75,525	47%	R50,250	R33,500	47%	44%	33%				
	R7,000–R9,999	R53,588	54%	R37,500	R25,000	59%	57%	45%				
	R10,000–R14,999	R26,588	54%									
	R15,000–R19,999											
	R20,000+											
Interest rate subsidy for targeted mortgage loans	R0–R3,499	R-	12%	R73,681	R50,906	21%	17%	12%	High	Low	Med	In this intervention the State provides the HH with the interest rate subsidy via the mortgage banks for a limited term. For income bracket R0–R3,500 the subsidy starts at 5% deduction (7.5%
	R3,500–R6,999	R75,525	47%	R53,586	R33,223	54%	45%	33%				
	R7,000–R9,999	R53,588	54%	R36,170	R19,291	54%	54%	45%				
	R10,000–R14,999	R26,588	54%	*								
	R15,000–R19,999											

Description of intervention	Income bracket	FLISP (current policy)	FLISP impact	Capital value (increased)	Capital value (original)	Impact (post increased incentives)	Impact (original post)	Impact (pre) as per supply -side result	Impact	Leakage	Admin effort	Commentary
	R20,000+											in increased incentive) reducing by 0.60% (or 1% increased incentive) per year for five years. Subsidy reducing by 1% of each income bracket and support is reduced by one year for each income bracket.
FLISP	R0–R3,499	R-	12%	R75,000	R50,000	16%	14%	12%	Med	Low	Med	Overall impact of this intervention improves HH affordability due to the reduction in amount of borrowings of the HH by the FLISP amount paid to the mortgage bank. The impact would be enhanced significantly if linked to a debt rehabilitation programme (see above)
	R3,500–R6,999	R75,525	47%	R50,250	R33,500	41%	38%	33%				
	R7,000–R9,999	R53,588	54%	R37,500	R25,000	51%	49%	45%				
	R10,000–R14,999	R26,588	54%									
	R15,000–R19,999											
	R20,000+											
	R3,500–R6,999	R75,525	47%	R12,240	R8,160	40%	37%	33%	Med	Med	Med	
	R7,000–R9,999	R53,588	54%	R17,490	R11,660	54%	50%	45%				
	R10,000–R14,999	R26,588	54%									
	R15,000–R19,999											
	R20,000+											
	R0–R3,499	R-	12%	R37,500	R25,000	13%	12%	12%				

Description of intervention	Income bracket	FLISP (current policy)	FLISP impact	Capital value (increased)	Capital value (original)	Impact (post increased incentives)	Impact (original post)	Impact (pre) as per supply -side result	Impact	Leakage	Admin effort	Commentary
Capital payment to mortgage bank – admin subsidy	R3,500–R6,999	R75,525	47%	R37,500	R25,000	38%	36%	33%	Low	Med	Low	Admin fee for five years paid annually in advance to the mortgage bank originating qualifying loans. Qualifying loans receive a 1% reduction in normal interest rate on their home loan. Increased incentive is a 1.5% reduction for R7, 500 admin fee for five years.
	R7,000–R9,999	R53,588	54%	R37,500	R25,000	52%	48%	45%				
	R10,000–R14,999	R26,588	54%									
	R15,000–R19,999											
	R20,000+											
Rental voucher	R0–R3,499			R180,000	R120,000	29%	23%	12%	High	Med	Med	Rental voucher disbursed on a card that is redeemable with accredited rental stock providers for up to 20 years. The value of the monthly rental voucher is R500 and R250 for the income brackets R0–R3, 500 and R3, 501–R7, 000 respectively.
	R3,500–R6,999			R90,000	R60,000	39%	36%	31%				
	R7,000–R9,999											
	R10,000–R14,999											
	R15,000–R19,999											
	R20,000+											

The impact of poor credit-worthiness undermines the overall impact of all interventions that rely on credit. This is the most significant factor influencing all interventions that rely on formal credit and, to a slightly lesser extent, formal rental options (subsidised or private rental). Interventions that provide grants in cash or through vouchers are most effective (unless they are also linked to credit), as they are not undermined by high levels of household credit impairment. The overall impact of less formal rental housing arrangements, such as backyard rental and household rental, is also not significantly undermined by credit-worthiness.

Rehabilitating credit behaviour is essential for improving the overall impact of assisting households to access housing. This will, however, require investing substantial resources and take a significant amount of time to filter through. The outcome of improved credit-worthiness has far wider positive implications than simply for the housing sector, and the value placed on such interventions should recognise this. The cost and resources necessary for credit rehabilitation interventions should be absorbed in budget lines broader than those in the housing sector.

7.4 Investment interventions

These interventions are programmes or activities aimed at stimulating increased investment in housing and apply only to privately developed, residential rental and household rental. Table 14 gives an overview of the impact of the interventions.

Table 14: Investment interventions by housing circumstance and income

Housing circumstance, type of housing	R0–R3,500	R3,500–R7,000	R7,000–R10,000	R10,000–R15,000	R15,000–R20,000	R20,000+
Privately developed residential rental and household rental	Operator rebate investment incentive					
	Investor rebate investment incentive					
	Municipal rates rebate					

Investment incentives using tax rebates are generally quite effective and are likely to stimulate additional funding for housing. These interventions can be well targeted, and leakage and administrative costs are low. Such investments could be applied to the financing of rental projects, whether rehabilitation, conversion or new-build projects, as well as finance for developers undertaking developments of housing for sale.

Municipal rates rebates do not appear to be effective and are relatively administratively intensive. Operator tax rebates, while providing apparent strong incentives, are not well targeted and have high levels of leakage (see Table 15).

Table 15: Investment interventions

Description of Intervention	Income Bracket	Tax Value Benefit	Impact (Post)	Impact (Pre)	Impact	Leakage	Admin Effort	Commentary
Operator rebate investment incentive	R0–R3,499	R8,918	14.5%	10.0%	Poor	High	Low	Depreciation allowance benefit is equal to a 20% write-off of cost in the first year, and 5% each year thereafter (17 years total). Average House Price R198k, R218k and R258k. First-year benefit based on 30% tax rate on write-off amount. The benefit results in an improved rental yield for the investor.
	R3,500–R6,999	R9,818	14.5%	10.0%				
	R7,000–R9,999	R11,618	14.5%	10.0%				
	R10,000–R14,999							
	R15,000–R19,999							
	R20,000+							
Investor rebate investment incentive	R0–R3,499	R4,756	12.4%	10.0%	Good	Low	Low	Investor receives a tax rebate based on the income earned from funds invested in qualifying funds. Benefit based on yield improvement on the house unit price. Assuming 80% of total cost is funded by investors. Investor's yield improved by the difference between a return of 10% taxed at 30% and a tax-free 10% return. The difference is added to the pre-impact yield to determine the post-impact yield
	R3,500–R6,999	R5,236	12.4%	10.0%				
	R7,000–R9,999	R6,196	12.4%	10.0%				
	R10,000–R14,999							
	R15,000–R19,999							
	R20,000+							
Municipal rates rebate	R0–R3,499	R6,000	10.3%	10.0%	Good	Low	High	Investors benefit from a 50% reduction in the current municipal rates charge, assuming the current rates charge is 0.5% of house value
	R3,500–R6,999	R6,000	10.3%	10.0%				
	R7,000–R9,999	R6,000	10.3%	10.0%				
	R10,000–R14,999							
	R15,000–R19,999							
	R20,000+							

7.5 Considering alternative housing scenarios

The historic practice scenario has the highest total cost, requiring the highest State contribution, but also reaches the greatest percentage (86 per cent) of targeted households. This scenario performs badly in respect of the other developmental indicators. It requires the greatest amount of additional land and contributes negatively to the compact city indicators, as the highest percentage of households assisted are found on the periphery. In addition, this scenario performs worst in respect of gearing non-state investment into the housing sector. The interventions used rely on subsidy mechanisms that generate high levels of market distortions and fail to encourage an effective housing market (see Table 16.).

The NDP scenario has the second highest total cost, but the required contribution by the State is about half that for the historic practice scenario. This scenario reaches significantly less households than the historic practice scenario (69 per cent compared to 86 per cent), but the number of households reached can be improved by increasing the value of the demand-side interventions. Only the impact of increasing the value of the housing vouchers was assessed, given that the high level of indebtedness has a negative impact whenever formal credit assessments are needed to access loans or rental accommodation. If the value of the housing vouchers is increased by 50 per cent and 100 per cent, the proportion of households assisted increases from 69 per cent to 72 per cent and 74 per cent respectively. The overall cost and the value of the State's contribution increase significantly: a 50 per cent increase in the housing voucher value results in the overall cost increasing by 6 per cent and the State contribution by 27 per cent; a 100 per cent increase in the housing voucher value leads to the overall cost increasing by 11 per cent and the State contribution by 52 per cent. Increased contributions to housing vouchers are fairly efficient (additional State contribution as a ratio of improved overall impact) in improving the overall impact of the scenario, up to a 50 per cent increase of the housing vouchers, but less efficient above that level. The NDP scenario achieves the best state gearing (1.9) after the lowest cost to the State scenario. It also has the best impact in terms of the compact city indicator, resulting in no households being assisted on the periphery and requiring about one-third of the land needed for the historic practice scenario.

The scenario with the third highest total cost is that of formalisation of informality (Outcome 8). The number of households reached (68 per cent) is similar to those in the NDP scenario, but the contribution required from the State is significantly lower. However, in this scenario, 56 per cent of households are assisted on the periphery, which has a negative impact on the compact city indicator, and contributes less to gearing non-state resources and encouraging a more effective housing market. This scenario also has a higher level of subsidy-linked market distortions than the NDP scenario.

In conclusion, of the four scenarios, the best performing one is the NDP (increasing the demand-side housing voucher by 50 per cent). However, the NDP scenario only affects 72 per cent of targeted households, which is mainly because of the limitations linked to the current high levels of household indebtedness in South Africa. While, alternative scenarios could be explored that would optimise impact and other developmental criteria against the cost to the State, any progress in housing South Africans would require a fundamental reduction in the current levels of household indebtedness.

Table 16: Alternative scenarios

Scenario	Arena	Historic practice	Lowest cost to the State	Formalisation of informality	NDP (absorption and sustainability)	NDP (enhanced demand-side vouchers increased by 50%)	NDP (enhanced demand-side vouchers increased by 100%)
Total costs (R million)		878,263	484,247	573,742	643,616	689,375	689,375
Total State contribution (R million)		641,812	127,049	223,925	212,928	270,356	299,730
Total State housing subsidy (R million)		236,889	-	13,289	3,929	3,929	11,636
Total State additional subsidy (R million)		269,898	85,642	66,708	97,001	97,001	108,141
Total State funding gap (R million)		124,874	-	-	-	-	-
Total State demand-side interventions (R million)		10,151	-	58,962	31,272	88,122	141,429
Total State supply-side interventions (R million)		-	28,360	84,965	82,727	81,305	73,663
Total household contribution (R million)		188,059	247,672	277,597	390,630	378,962	349,588
Total household debt (R million)		169,253	203,620	231,845	355,291	346,443	310,826
Total household savings (R million)		18,806	44,052	45,752	35,339	32,519	28,046
Total private sector contribution (R million)		48,392	109,526	72,221	40,057	40,057	40,057
Total private sector debt (R million)		42,423	101,393	61,241	35,422	35,422	45,294
Total private sector equity (R million)		5,969	8,133	10,980	4,635	4,635	4,647
No of HHs targeted (units)		8 622 182	8 622 182	8 622 182	8 622 182	8 622 182	8 622 182

Scenario	Arena	Historic practice	Lowest cost to the State	Formalisation of informality	NDP (absorption and sustainability)	NDP (enhanced demand-side vouchers increased by 50%)	NDP (enhanced demand-side vouchers increased by 100%)
No of HHs assisted (units)		7 411 974	5 225 452	5 812 773	5 898 360	6 201 614	6 201 614
Percentage assisted		86%	61%	67%	68%	72%	74%
Total cost per household assisted (R per unit)		118,492	92,671	98,704	109,118	111,161	115,100
State contributing per household assisted (R per unit)		86,591	24,314	38,523	36,100	43,594	53,260
State gearing (based on qualifying households)		0.4	2.8	1.6	2.0	1.5	1.2
Percentage of households assisted in periphery		49%	63%	50%	0%	0%	0%
Hectares (ha) of additional land required		123 999	25 483	35 384	40 811	45 653	52 048
Arena where land is required (ha)	Existing township	12 028	3 362	4 872			

8. Conclusions and Recommendations

The Commission held two rounds of public hearings with the aim of identifying and discussing challenges related to the funding and delivery of housing. The Commission sought to develop and cost alternative housing funding and delivery options. This report identified and assessed the costs of supply-side, demand-side and investment interventions.

A model was used to determine costs associated with each intervention, mainly using 2007 Community Survey demographic data. The costs of different housing options are a direct function of the cost of the land, specifications for services and top structure adjusted for various densities. The cost to the State is a function of the level of explicit or implicit subsidies provided and unrecovered costs. The extent to which these interventions are directly funded out of public funds can undermine fiscal sustainability. The financial burden on the State declines when households and private firms are encouraged to fund a portion of the unit costs through savings/debt or equity/debt. The impact on households is a function of eligibility, affordability and credit-worthiness. The most significant limiting factor is the current high levels of credit impairment, which cannot be addressed through increased subsidies. Incentives offer a significant opportunity to influence how households save and their behaviour in relation to credit.

The State's capacity to manage delivery is limited, and so supply-side options that mobilise household and private responsibility need to be seriously considered. Care must be taken when designing interventions to ensure good quality, value-for-money outcomes for participating buyers/tenants. In the long term, municipal viability will be enhanced by supply-side interventions that increase densities, encourage more compact cities and deliver products that are more amenable to the collection of rates and service charges over time. This implies avoiding low-density peripheral developments and un-incentivised incremental housing delivery.

Demand-side interventions show promise and should be seriously considered, especially housing vouchers, provided they are not linked to a requirement to access credit. Risk underwriting of unsecured credit and of secured loans (deposit guarantees) are also cost effective but only apply when the beneficiaries (generally the lenders rather than the borrowers) recognise and pay for the intervention.

Investment incentives using tax rebates are effective and are likely to stimulate additional funding for housing. These interventions can be well-targeted and have low leakage and administrative costs. Likely applications of such interventions would be the financing of rental projects, whether rehabilitation, conversion or new-build projects, as well as finance for developers undertaking developments of housing for sale.

It was clear from the public hearing that, since the beginning of the housing delivery programme, the government has focused on providing a complete and free housing product to qualifying households. The current arrangements promote the State as the central provider of housing for 60 per cent of households and actively crowd out participation by individuals and the private sector. This has also been proven by the modelling exercise on those options where the full burden falls on the State. The current system of providing qualifying households with a complete housing product is not sustainable and needs to be reviewed. (The Minister of Human Settlements also indicated in April 2011 that the government could not continue offering free housing indefinitely.) Against this background, and in response to stakeholders' inputs made at the public hearings and the results of the modelling exercise, the Commission is of the view that a paradigm shift in housing finance policy is required. This shift contains four core components:

a) *Refocusing on building a single, inclusionary housing market.* The current, de facto housing finance policy fails to recognise adequately the role of the housing market in providing access to housing at scale. This market already operates, either formally or informally, across all market segments and in both primary and secondary markets, but fails the poorest households the most.

b) *Reviewing the role of state.* Houses are only one component of human settlements, as a sustainable human settlement consists of two components: the public good and the private good. When providing housing, it is important to differentiate between human settlements components that can be considered a public good and those that are a private good. Understanding this difference is essential and will enable the State to concentrate on delivering public-good components and creating an environment in which the individual households and private sector are able to concentrate on providing the private-good components of human settlements. In theory, some characteristics of a public good are non-rivalry and non-exclusivity. Houses are essentially a private good. The infrastructure, services and facilities that build healthy, vibrant communities have public-good characteristics. Even serviced land, with secure title, has a greater public-good characteristic than the houses themselves. This suggests that the State should focus on delivering appropriate public goods to support human settlements and on streamlining the institutional and regulatory red tape in the delivery of human settlements.

c) *Reviewing housing entitlements*: The Bill of Rights (Section 26(1) of the Constitution of the Republic of South Africa) entitles everyone to access to adequate housing. Section 26(2) of the Constitution takes this further and says that the State must take reasonable legislative and other measures to ensure the progressive realisation of this right. However, the State is not obliged to provide free housing. The thinking and perception of households need to shift, from being passive recipients dependent on the State, to becoming actively engaged in meeting their own housing needs and mobilising their own resources as end-user contributions.

d) *Addressing the needs of informal settlements*: The proliferation of informal settlements reflects the current dysfunctions in the housing sector and are a result of the inability of the State and the market to adequately address household needs. Global experience suggests addressing State and market failures alone will not meet the needs of many households already living in informal settlements. A dedicated focus on upgrading these settlements is critical. Informal settlements must not be seen as a problem but as an opportunity to empower households and redesign cities. In-situ upgrading should be prioritised; this also provides an opportunity for densification, as informal settlements are mostly already dense.

Based on this analysis and validation through the public hearings process, it is recommended that the government should:

- Invest a significant proportion of resources in interventions that stimulate additional funding from the private sector (banks and private developers) as well as household contributions towards housing delivery. Such interventions include:
    - Investment incentives using tax rebates;

- Upgrading of backyard rental with incentive; and
  - Housing voucher.

- Embark on housing delivery reforms taking into consideration the following principles:
  - Refocusing on building a single, inclusionary housing market;
  - Redefining the role of state; and
  - Reviewing housing entitlements.

- Improve institutional coordination and streamline processes within the value-chain of housing delivery to reduce time taken to deliver houses and associated costs. This will ensure that the delivery of human settlements is well coordinated and that all new housing developments comply with the holistic definition of 'sustainable human settlements'. It will also allow for human settlement projects to be aligned with the national and departmental strategies within a province or local authority, such as Local Development Objectives, Integrated Development Plans, Integrated Transport Plans, the Urban Development Framework, Outcome 8 (create sustainable human settlements and improved quality of household life), the NDP, the integration of housing needs, involving salient external stakeholders and additional funding requirements. Streamlining processes within the value chain will reduce the time it takes to deliver a complete housing unit from land assembly to the stage of transfer and handover.

- Establish inter-departmental coordination bodies at the provincial and municipal level consisting of relevant departments responsible for different aspects in the delivery of human settlements.

It is further recommended that Department of Human Settlements should:

- Strengthen its monitoring and evaluation role in the entire human settlements sector. This will enable the department to identify challenges at an early stage and develop ways to address them.

- Develop monitoring system for verification of housing projects in all provinces. This improves the credibility of reporting and can be used to determine whether objectives are met.

- Regularly revise annual performance targets taking into account available resources, capacity and changes in norms and standards among other things. This will assist the department to reduce discrepancies between planned and actual service delivery targets. The DoHS has already started revising some of its annual performance targets for 2013/2014 financial year.

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Annexure A: Interventions Description and Explanation

Supply interventions

Supply interventions modelled per circumstance are divided into:

I. **Informal settlement interventions**

- *Insitu upgrading of informal settlements with formal top structure* - An informal settlement is upgraded on the basis where each remaining household receives registered ownership of a stand (at an assumed density of 60 units per hectare), serviced to a medium level of service[30] and a top structure comprising a 40m2 house fully financed by the state.
- *Site and service with formal top structure* - Households are relocated from an informal settlement into a site and service project. The household receives a stand at a density of 60 units per hectare, serviced to a medium level of service and a top structure comprising a 40m2 house (which is usually delivered at a later stage) and fully financed by the state
- *In situ upgrading of informal settlements with incremental top structure* **-** Households are relocated from an informal settlement into a site and service project. The household receives a stand at a density of 60 units per hectare, serviced to a medium level of service and a top structure comprising a 40m2 house (which is usually delivered at a later stage) and fully financed by the state.
- *Administrative incorporation of informal settlements with no top structure* **-** All households in the informal settlement receive confirmation of their right to access the site on which their informal dwelling is located, an administrative number for their dwelling (or address) and a basic level of service[31]. This is fully funded by the state.

  Subsidised (RDP) Housing **-** A household receives registered title to a stand (generally developed to a density of 40 units per hectare) serviced to a medium level of service and with a 40m2 house. This is fully funded by the state.

II. **Backyard rental**

[30] A medium level of service comprises piped water to site, water borne sewerage, gravelled roads (tarred bus routes) and medium level of electricity (3,5 KVA)

[31] A basic level of service comprises stand pipes, ventilated pit latrine, gravelled roads and low level of electricity (2, 5 KVA).

- *Upgrade of backyard rental with an incentive* - The owner of a property in a designated area, is provided with a state incentive of R30, 000 to replace an informal backyard unit with a formal unit to specific specifications. The incentive is only provided once the formal unit has been built.
- *Subsidised (RDP) Housing* **-** As per informal settlement above.

III. New family formation and housing ladder

- *Subsidised (RDP) Housing* **-** As per informal settlement above.
- *Site and service with incremental top structure* **-** As per informal settlement above.
- *Privately developed residential rental (apartment) –* A rental unit of between 30 and 60m2 developed and managed by a private sector landlord. No government subsidization is accessed.
- *Household rental apartment with an incentive* **-** An owner of a property in a designated area is provided with a state incentive of R40, 000 for the development of a formal unit for rent to specific specifications.
- *Privately converted industrial space to residential units* **-** A SHI/private developer provided with a State incentive of R40,000 for converting an industrial property to a residential rental unit of between 30 and 60m2 to specific specifications in a dedicated area
- *Developer delivered formal house for ownership* **-** A developer delivered formal house on a serviced stand (at a density of 30 unit per hectare), developed to a high level of service and a top structure of between 40 and 80m2 house. The purchase is funded by privately provided mortgage backed loan.
- *Privately developed bonded RDP house* **-** A developer delivered formal RDP type house on a serviced stand (at a density of 60 units per hectare), developed to a medium level of service. The purchase is funded by privately provided mortgage backed loan.
- *Sub-divided formal house for ownership with an incentive* - An owner subdivides his property and develops a formal house for sale on the sub divided portion in designated areas. The owner receives a state provided incentive of R40 000. The purchase is funded by privately provided mortgage backed loan.

IV. Formal owned, rented and traditional dwelling

- *Service connection backlog: water* **-** Project-based state funding is provided to a municipality to upgrade water service connections to- minimum standards in existing residential areas where backlogs exist.
- *Service connection backlog: electricity* **- State** funding to a municipality to upgrade electricity connections to minimum standards in existing residential areas.
- *Service connection backlog: sanitation* **- State** funding is provided to a municipality to upgrade sanitation connections to minimum standards in existing residential areas.

Demand side interventions

The following categories of demand interventions have been modelled:

I. Incremental housing intervention

- *Housing voucher* **-** This comprises a once of capital amount managed by either the accredited subsidy authority or a national DFI being authorized to accredit and monitor suppliers disbursed via a debit card which is issued to beneficiaries earning below R10,000 per month and redeemed at accredited suppliers. Quality control is monitored by independent audit.
- *Aggregated retail credit risk underwriting* **-** This comprises the state underwriting the risk of unsecured lending to targeted households earning below R10,000 per month, by underwriting 70% of the credit providers loans that are written off (with a maximum write off of 50% of the portfolio). The facility would only be applicable to incremental housing credit via the National Credit Regulators registered lenders and separately identifiable as credit used at accredited suppliers. The interest rate on unsecured loans is capped at 10% less than the current cap (28.7%). The maximum loan size is R20, 000. The facility would be managed by a national DFI and the Accredited Lenders and quality control monitored by audit.

II. Bonded housing market

- *Mortgage tax deduction* **-** This comprises an annual deduction of the interest payment on a mortgage against taxable income for 5 years. The deduction is made and managed via SARS. The deduction is for individuals with an income of below R10, 000 per month who first time home owners are purchasing a property for less than R300, 000.

- *Savings linked mortgage subsidy capital amount* **-** The individual (earning below R10, 000 per month who are first time home owners purchasing a property for less than R300, 000) is incentivised to save the equivalent of 50% of a mortgage instalment for 36 months to qualify for a capital contribution to a bond. Registered bank will be accredited to administer a national home ownership savings scheme. The intervention is quality controlled and audited and monitored by registered lenders.
- *Savings linked mortgage subsidy capital amount with credit rehabilitation* **-** This comprises a savings linked mortgage subsidy capital amount (as described above) but combined with a structured debt rehabilitation / counselling process for individuals who are credit impaired to undergo debt rehabilitation with an accredited counselling entity receiving a once-off payment when the individual qualifies for a loan. The subsidy is for individuals with an income of below R10, 000 per month who first time home owners are purchasing a property whose price is below R300, 000. The intervention is quality controlled and audited and monitored by registered lenders.
- *Interest rate subsidy for targeted mortgage loans* **-** This comprises the state subsidising the interest rate on qualifying loans from mortgage banks for a limited period. The mortgage bank originates qualifying loans at a subsidised interest rate and claims the difference in interest rate from the State. Targeting those earning below R10, 000 per month who are first time home owners purchasing a property for less than R300, 000.
- *FLISP (Revised)* **-** This comprises a once off capital amount payable to a mortgage bank to improve a households affordability and to reduce the loan amount. Targeting first time home owner purchasing a property for less than R300, 000. The Subsidy is on a sliding scale starting at monthly household incomes of R3, 501 up to a maximum household income of R15, 000 and managed by the National Housing Finance Corporation who undertakes quality control, auditing and reporting.
- *Mortgage deposit guarantee* **-** The subsidy is equal to the annual premium, paid for 5 years, for an insurance product that replaces the need for the individual to provide the mortgage bank with a deposit to secure a home loan. Qualifying individuals with affordability can access a 10% deposit guarantee (20% for an increased incentive). The mortgage bank lends 100% to the household to acquire a house and the accredited insurance company issues the mortgage bank with a deposit guarantee. The subsidy is managed by accredited insurers who undertake quality control, auditing and reporting.

- *Capital payment to mortgage bank admin subsidy* **-** This subsidy comprises a once off capital amount payable to a mortgage bank to encourage greater lending to targeted households. The mortgage bank receives a once off payment for each qualifying loan. The subsidy is applied for households with an income below R10, 000 per month who are first time home owners and are purchasing a property with a price of less than R300, 000. The subsidy is managed by accredited lenders who undertake quality control, auditing and reporting.
- *Rental voucher* **-** This comprises a monthly rental voucher, disbursed via a debit card and redeemed at accredited rental stock providers. The voucher is provided to households with an income of below R7, 000 per month. This subsidy is managed by the Social Housing Regulatory Authority who undertakes quality control, auditing and monitoring.

It should be noted that the Mortgage Indemnity Fund currently being developed by the NHFC is not included, as information on how the intervention will be structured is currently not available. An overview of the above interventions as they apply to different income categories by housing circumstance is shown in the table 3 below.

Table 17: Interventions by housing circumstance and income group

Housing circumstance	Intervention	Income level
Incremental housing	Housing vouchers and Aggregated retail credit risk underwriting.	R0-R3500,R3501-R7000 and R7000-R10000
Formal owned developer delivered house. First time home buyer only	Mortgage tax deduction, savings linked mortgage subsidy capital amount, savings linked mortgage capital amount with credit rehabilitation, interest rate subsidy for targeted mortgage loans, mortgage deposit guarantee, admin subsidy and FLISP adjusted.	R0-R3500, R3501-R7000 and R7000-R10000 and up to R10000-R15000.
Privately developed residential rental	Rental voucher.	

Investment interventions

Investment interventions that only apply to privately developed residential rental and household rental up to income level in excess of R20000 modelled are:

- *Operator rebate investment incentive:* a reduced corporate/individual tax payment through an accelerated depreciation allowance offered to developers of qualifying rental housing stock with quality control, monitoring and auditing managed by SARS.

- *Investor rebate investment incentive:* a corporate/individual tax rebate on income from funds invested into designated applications offered to investors investing funds into qualifying funding instruments/projects. Qualification is based on house price and location with quality control, monitoring and auditing issues managed by SARS.
- *Municipal rates rebate:* a reduction of property rates and taxes cost through a reduction of municipal rates and taxes payable offered to developers of qualifying housing stock. Qualification is based on house price and location. Application is made to the Municipality for the rates rebate.

Each intervention is evaluated in terms of the following assessment criteria as shown in table

Table 18: Assessment criteria

Criteria	Description
Overall impact on households	The amount and proportion of targeted households in respect of a particular housing circumstance assisted and is calculated as follows: eligibility, affordability and credit worthiness.
Contribution towards integrated, inclusive and equitable cities	The extent to which interventions are not implemented on the periphery of the cities and if the density is lower than 40 units per hectare, then it is not contributing towards densification.
Impact on market distortions	This measure takes into consideration the impact on competition[32], risk allocation[33], transparency[34] and transaction cost / duplication[35].

[32] The extent to which the intervention allows for easy entry and exit of other players into the market. For example subsidised (RDP) housing is market distorting because it discourages the delivery of private mortgage finance housing developments at the lower price range.
[33] The extent to which the intervention shifts risk unduly or eliminates risk for specific parties and potentially changes their behaviour. For example mortgage underwriting shifts the risk from the financial institution to government potentially resulting in financial institutions reducing their due diligence when assessing applicants.
[34] The extent to which the intervention is transparent especially in respect of subsidisation. Hidden subsidies create false perceptions of value and often unfair playing fields or hide cost which others cannot avoid. For example subsidised (RDP) housing costs approximately R134,000 to develop but the majority of these costs are hidden being provided by the municipality, with the explicit stated subsidy being R 59 000.
[35] The extent to which the intervention results in duplication of systems, institutions, processes etc. and results in increased costs to society.

Annexure B: Development Parameters

Modelling assumptions

Development parameters

Infrastructure costs per level of service

Infrastructure costs cover the supply of water, sanitation, electricity, roads and storm water. A service level is selected from three categories:
A basic level of service comprises stand pipes, ventilated pit latrine, gravelled roads and low level of electricity (2, 5 KVA) A medium level of service comprises piped water to site, water borne sewerage, gravelled roads (tarred bus routes) and medium level of electricity (3, 5 KVA) A high level of service comprises piped water into the unit, water borne sewerage, tarred roads and high level of electricity (12,5KVA)

The costs used for each level of service are tabulated below:

Table 19: Costs of services by level of service

	High	Medium	Basic
Water			
Bulk cost	R 6 563	R 3 938	R 525
Reticulation cost	R 3 500	R 3 500	R 3 500
Unit connection cost	R 2 000	R 2 000	R 0
Total Water Cost	**R 12 063**	**R 9 438**	**R 4 025**
Sewer			
Bulk cost	R 6 000	R 1 200	R 0
Reticulation cost	R 4 625	R 4 625	R 0
Unit connection cost	R 1 250	R 1 250	R 5 000
Total Sewer Cost	**R 11 875**	**R 7 075**	**R 5 000**
Electricity			
Bulk cost	R 18 750	R 5 250	R 3 750
Reticulation cost	R 5 000	R 5 000	R 5 000
Unit connection cost	R 2 000	R 2 500	R 2 500
Total Electricity Cost	**R 25 750**	**R 12 750**	**R 11 250**
Roads & Storm water	**R 8 750**	**R 5 000**	**R 2 500**
Land	**R 12 500**	**R 12 500**	**R 0**
Total average cost per unit	**R 70 938**	**R 46 763**	**R 22 775**

NOTE: No provision has been made for solid waste bulk investment e.g. land fill sites

Land cost per arena

For each intervention the housing product is delivered in a housing arena or area at a certain density. The density of the housing development has an impact on the on the price of the land per housing unit delivered and on the cost of the services delivered to the housing unit. For each intervention the density of the housing product is set by income level. The costs of the housing arenas are as follows:

Table 20: Land cost by arena

Housing Arena Description	National *Land Price per Hectar*	National *Land Price per Sqm*	Metro *Land Price per Hectar*	Metro *Land Price per Sqm*
Land on the periphery of Cities and Towns	250000		500000	
Land located within existing developed areas (Infill)	750000		1250000	
Existing suburbs		200		1000
Existing Township		100		400
Existing Informal Settlements	100000		200000	
InnerCity Areas		150		500

Note:

Land prices given are broad averages and amounts influenced by;

- availability of bulk infrastructure

- specific location in relation to existing high/middle/low income areas

Construction cost for different standards and methodologies

For each intervention and by each income level the size (in square meters) is determined for each housing unit. Ranging from the smallest unit (backyard upgrade) at 16 square meters to the largest unit size (developer delivered formal house) of 80 m2.

The cost of the top structure is depended on the type of housing intervention and the quality of finishes. Higher income groups generally have higher cost of top structure. Top structure costs range from R2, 300 to R5, 00 per m^2.

Professional and programme management costs

Depending on the housing intervention the cost of housing unit is escalated by the following fees:

- Professional Fees: 18% has been added to all infrastructure and building costs (but not to land) to cover the following:
    - Legal and cadastral costs
    - Urban and town planning costs

- EIA, TIA and other relevant investigations
- Land surveying
- Civil and electrical engineering design and oversight
- Beneficiary administration
- Conveyancing
- Project development management

- Program Management Fee: A 5% program management fee has been added to all costs under the following housing interventions:
  - In-situ upgrades of informal settlements (with formal top structure)
  - Site and service (with formal top structure)
  - In-situ upgrades of informal settlements (with Incremental top structure)
  - Site and service (with Incremental top structure)
  - Admin Incorporation of informal Settlements (Basic Level of Service no top structure)
  - Upgrade of Backyard Rental (with incentive)
  - Household Rental (Formal Apartment)

  Developer Mark-Up: Where the housing product has been delivered by the private sector for sale i.e. the developer delivered housing units, the cost to the household is escalated by 18% to cover the developers profit and financing costs.

Annexure C: Funding Parameters

Funding parameters

State subsidies

The State's contribution has been defined in the model as either one or a combination of the following funding streams:

- Housing Subsidy (as per allocation via province or accredited municipality);
- Additional Subsidy (including SHRA, infrastructure grant/USDG etc.). For all housing interventions the value of the additional subsidy is equal to the total cost of the land and services, expect in the case of SHRA funded residential renttal where the additional subsidy is equal to R125,000 per housing unit;

- State Incentive (an amount paid to the provider of the housing stock to incentivise specific housing outcomes);
- State Funding Gap (the unfunded portion of the residual cost of delivering the housing unit); and
- Bulk infrastructure grant.

A portion of the total cost of the housing unit is recovered by the State through municipal capital recoveries. This is a recovery of the bulk services costs by the municipality from the household or private developer. This municipal recovery does not impact on the calculation of the State's contribution.

The model is designed to calculate the household contribution by deducting the State's contribution from the total cost. For example, in the case of the historic practice the 'RDP' housing intervention for households earning less than R3, 500 per month was fully funded by the State (ignoring the deposit requirement for households earning more than R1, 500 but less than R3, 500). So in this case there would be no household contribution.

Private sector funding to households

In the housing interventions where the household funds the remaining portion of the costs, the costs are funded by either household savings or by the household accessing credit (secured credit for mortgage loans and unsecured credit for incremental housing interventions).

The model allows for a different level of debt for each housing intervention and for each income group. The residual amount required to fund the remaining portion of the costs is assumed to be funded from households' savings.

Private sector funding to firms

For the housing interventions that are delivered by the private sector, such as the Privately Developed Residential Rental (apartment), the private sector developer will fund the cost of the housing units from:

- private sector equity; and debt provided by commercial funders of development (construction) finance, i.e. banks.

Annexure D: Affordability parameters

Secured mortgage loans and unsecured credit

Affordability for secured mortgage loans and unsecured credit was determined as follows:

- For each household income bracket the midpoint of the household income is used as the average household gross income.
- It is assumed that 30% of the household gross income is available by the household as an instalment to pay debt or as payment towards rent.
- If the intervention requires the household to borrow money the following unsecured (personal or incremental loan) and secured (mortgage) parameters that wouldd apply to the cost of the loan have been assumed:
  - For unsecured the interest rate is set at 28.7%, the term of the loan is 36 months, the upfront administration fee is R1,000 (inclusive of VAT) per loan and that the household takes out two loans over 6 years to fund their housing debt requirements.
  - For secured loans (mortgages) the interest rate is set at 10.5% for the income brackets R0 to R10, 000 and at 8.5% above R10, 000. The term is set at 240 months and the administration fee is R1, 000.
  - No monthly service administration or credit life insurance costs have been included for either the secured or unsecured loans.

Monthly rentals on rental accommodation

Where the intervention was for rental, the rental cost for the household is the sum of the two following components:

- Gross Rent Cost: The gross rental cost is determined by using the total cost of the house less any State subsidy that may be applicable to determine a net cost of the housing unit. The net cost is multiplied by an annual rental yield factor of 12% for income between R0- and R10, 000 and 10% for incomes above R10, 000 to determine the gross rental cost for the household (shown as a monthly cost). This differentiation is to match the differentiation in the interest expectations used under the assumptions used where borrowing is applicable. For rental stock provided under the SHRA intervention only the debt portion of cost of the housing unit is used to determine the rental cost for income between R0 and R7,000.

- Additional Cost: Added to the gross rent cost is an additional 20% cost which is to cover administration, maintenance, collection costs and vacancy.