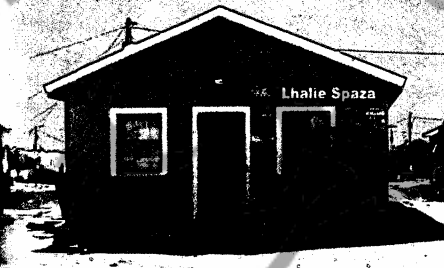




ECONOMIC IMPACT OF GOVERNMENT HOUSING PROGRAMMES



Prepared for:



human settlements
Department
Human Settlements
REPUBLIC OF SOUTH AFRICA

FEBRUARY 2011



ECONOMIC IMPACT OF GOVERNMENT HOUSING PROGRAMMES

FEBRUARY 2011

Prepared by:



PO Box 13359
Hatfield
0028

Tel: 012 346 4845

Fax: 012 346 0068

E-mail: russell@kayamandi.com

In association with:



ABBREVIATION AND ACRONYMS

- ◇ ANC African National Congress
- ◇ B-BBEE Broad-Based Black Economic Empowerment
- ◇ BNG 'Breaking New Ground'
- ◇ CRO Community Representative Organisation
- ◇ DBSA Development Bank of Southern Africa
- ◇ EIA Economic Impact Assessment
- ◇ EPWP Expanded Public Works Programme
- ◇ GNP Gross National Product
- ◇ HDI Historically Disadvantaged individuals
- ◇ HSS Housing Subsidy System
- ◇ IDP Integrated Development Plan
- ◇ ISRDP Integrated Sustainable Rural Development Programme
- ◇ LED Local Economic Development
- ◇ M&E Monitoring and Evaluation
- ◇ MIG Municipal Infrastructure Grant
- ◇ MPCC Multi-purpose Community Centres
- ◇ NHBRC National Home Builders Registration Council
- ◇ NHP National Housing Programme
- ◇ NSDF National Spatial Development Framework
- ◇ PHP Peoples Housing Process
- ◇ RDP Reconstruction and Development Programme
- ◇ SAIRR South African Institute of Race Relations
- ◇ SAM Social Accounting Matrix
- ◇ SH Social Housing
- ◇ SHIs Social Housing Institutions
- ◇ SMME Small Medium and Micro Enterprises
- ◇ STATS SA Statistics South Africa

TABLE OF CONTENTS

1.	INTRODUCTION AND STUDY BACKGROUND	1
1.1	STUDY BACKGROUND AND PURPOSE	1
1.2	STUDY APPROACH	2
1.3	BASE DATA	5
1.4	STUDY CHALLENGES AND LIMITATIONS	8
1.5	REPORT OUTLINE	9
2.	QUANTIFICATION OF ECONOMIC IMPACT	10
2.1	ECONOMIC INDICATORS AND PARAMETERS	10
2.2	QUANTIFICATION OF THE ECONOMIC IMPACT	14
2.3	INTERPRETING THE QUANTIFIED ECONOMIC IMPACTS	19
2.4	CONCLUSION	28
3.	ACHIEVEMENT OF INTENDED OUTCOMES	31
3.1	WEALTH CREATION, POVERTY ALLEVIATION AND EMPOWERMENT	31
3.2	EMPLOYMENT CREATION	44
3.3	BREAKING BARRIERS IN THE RESIDENTIAL PROPERTY MARKET	55
3.4	SUSTAINABLE HUMAN SETTLEMENTS AND SPATIAL RESTRUCTURING	74
4.	RECOMENDATIONS TO IMPROVE ECONOMIC IMPACT	104
4.1	MAXIMISE LOCAL JOB CREATION AND SUPPORT FOR SMMES AND B-BBEEs	104
4.2	ENHANCE SKILLS TRANSFER	108
4.3	IMPROVE CONSUMER EDUCATION	109
4.4	ENHANCE INCOME GENERATION POST-HOUSING ASSISTANCE	110
4.5	IMPROVE QUALITY, BUILDING MATERIALS AND THE USE OF RENEWABLE RESOURCES	114
4.6	IMPROVE MUNICIPAL SERVICE DELIVERY AND INCOME GENERATION	115
4.7	IMPROVE LOCATION, DENSITY AND ACCESS TO ECONOMIC OPPORTUNITIES	116
4.8	ADDRESS PROPERTY MARKET AND OWNERSHIP	120
4.9	ENHANCE DEPARTMENTAL COLLABORATION AND COORDINATION	121
4.10	SPEED-UP DELIVERY TO ADDRESS BACKLOGS	123
4.11	IMPROVE MONITORING AND EVALUATION AND THE HSS DATABASE	124
4.12	UNDERTAKE CONTINUED RESEARCH AND DEVELOPMENT	129

BIBLIOGRAPHY

ANNEXURES

ANNEXURE A: STUDY APPROACH	I
ANNEXURE B: ECONOMIC IMPACT MODELLING APPROACH	VIII
ANNEXURE C: LESSONS FROM SUCCESSFULL AND UNSUCESFFUL PROJECTS	XIX
ANNEXURE D: BASE DATA	XXVI

1. INTRODUCTION AND STUDY BACKGROUND

This report presents the findings of the economic impact of housing programmes delivered by the National Department of Human Settlements (hereafter referred to as 'the Department').

recommendations

This section of the report is structured as follows:

- ◆ Study background and purpose
- ◆ Study approach
- ◆ Base data
- ◆ Challenges and limitations
- ◆ Report outline

1.1 Study background and purpose

A total of R115.56 billion at current 2010 prices in capital expenditure has been spent. Of the total capital expenditure, R99.41 billion at current 2010 prices was spent by the Department of Human Settlements and the remaining R16.15 billion by other national departments, local municipalities, and the social housing institute.

Between **1994** and **2010** approximately **R99 billion** at current 2010 values has been spent to deliver approximately **2.37 million** houses. Due to limited knowledge of the actual impact of investments from government housing programmes over the last 16 years, many programmes have been selected and run without clear vision of potential positive, as well as negative impacts; while certain decisions have been made that do not always maximise economic benefits which could be derived from the Department's expenditure. The Department would thus benefit from a study that:

- ◆ Starts the practice of evaluation of impacts derived from its resource utilisation
- ◆ Introduces the principles of cost-benefit analysis in the programmes
- ◆ Provides guidelines to reinforce focus on attaining socio-economic objectives

The goal of the study entails assessing the economic impact of housing programmes since their inception. The objectives entail:

- ◆ Measure the overall economic impact of the housing programmes per the following impact levels:
 - ◆ Macro impact level including all the related sectors and groups that benefited directly and indirectly from the housing programmes as well as the multiplier effects on the overall economy

- Local level impact
- Urban and rural areas impact
- Beneficiary and household level impact
- ◆ Analyse the extent to which government investment in housing has achieved its intended outcomes in terms of:
 - Driving economic development
 - Structural transformation
 - Fostering meaningful participation of the poor in the mainstream economy
- ◆ Identify gaps and opportunities for future investment in the development of sustainable human settlements
- ◆ Provide evidence generated through the impact assessment which will be used to provide recommendations that can strengthen the impact of the programmes

The study scope entailed:

- ◆ Analysing the extent of the contribution to economic development from 1994/1995 to 2009/2010
- ◆ Measuring the overall economic impact of programmes
- ◆ Analysing the extent to which intended outcomes have been achieved, including:
 - Driving economic development
 - Bringing about structural transformation
 - Fostering meaningful participation of the poor
 - Distributing wealth and poverty
 - Identifying gaps and opportunities for future investment
- ◆ Providing recommendations to strengthen impacts

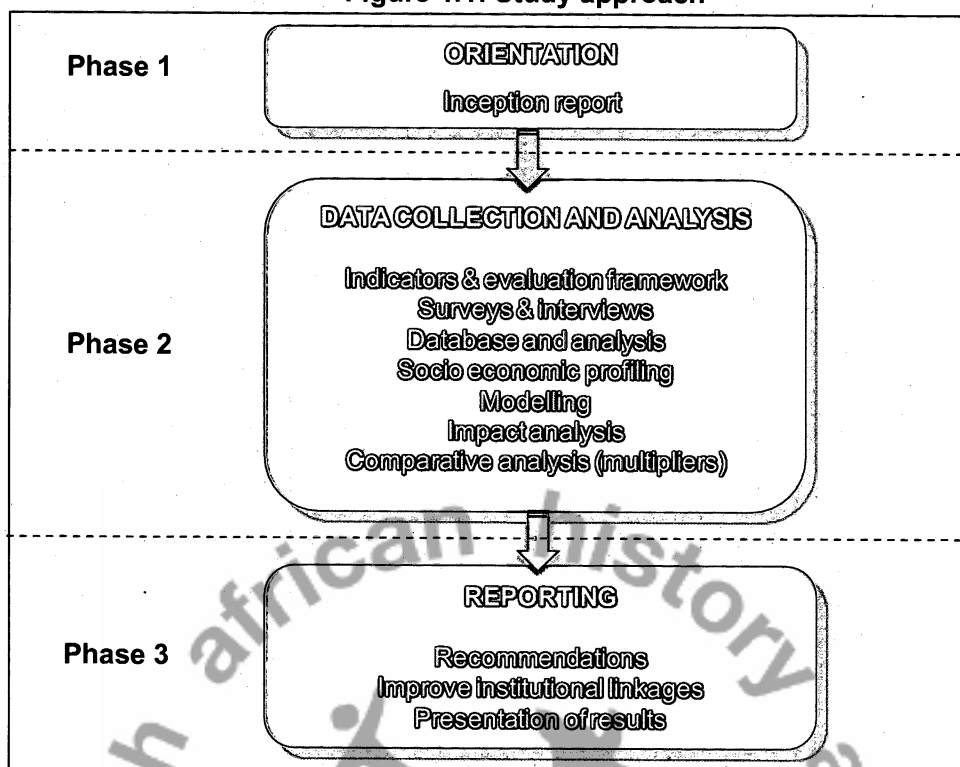
This report is focused on the degree to which over the past sixteen years government housing programmes and investment and delivery have assisted in achieving intended outcomes, impacted on the economy, and enabled meaningful participation of the poor in the mainstream economy.

1.2 Study approach

Figure 1.1 provides an indication of the approach followed. A brief description follows. Consult **Annexure A** for detail on the study approach.

Orientation, **phase 1**, entailed clarifying the project process and developing consensus on the way forward. An inception report was produced and presented to the steering committee.

Figure 1.1: Study approach



Data collection and analysis followed in phase 2.

Extensive national and international literature was consulted. This entailed obtaining secondary information, research, documents, case studies, etc on similar initiatives and to review, collate and extract relevant indicators or evaluation factors with respect to such aspects as economic impact, economic integration, etc. There is extensive national and international literature and research on the social and economic effects of housing. Very little, however, tries to measure the social and economic effects of government housing programmes and types of housing, never mind the impact over the years, or assessing whether the social and economic impacts were caused by incomes of households or by the housing itself.

Primary data was collected throughout the country to augment secondary data. The **cluster sampling method** was used to determine clusters of municipalities to be surveyed per province. A total of 25 municipalities distributed throughout the country was sampled. The study aimed for a **stratified complex probability sampling strategy** with a reasonable degree of representivity in order to sample projects. Considering budgetary and time constraints in line with project costing, the stratified sample included 81 projects. Because the study did not have a sample frame, it is not possible to determine the sample size percentage, owing to an unknown amount of housing subsidy projects delivered in the country over the timeframe in question. Although there are no statistically fixed rules as to how large sample sizes should be – since this depends on the extent to which

populations being surveyed conform to statistical normality (and survey populations seldom do) – the number of sampled projects yielded a dataset robust enough for a higher level of reporting at national level. Without clarity on the split in expenditure per programme, a minimum of ten projects were sampled per programme with greater emphasis on sampling project-linked programmes because of known indications of greater expenditure. The sample of projects chosen from the sampled municipalities thus spans a wide range of variables, such as location, size, subsidy type, RDP regime/ BNG regime, and good case study projects. Within each sampled project, ten beneficiary households were sampled using the random-walk method to collect data on the target market and to gain an insight into the impact of beneficiaries.

Primary data sources included personal and telephonic interviews with:

- ◆ Housing officials from all nine provincial human settlement departments
- ◆ Municipalities: housing officials, officials from treasury/accounts, and engineers
- ◆ Contractors and implementing agents
- ◆ Research specialists
- ◆ A sample of housing beneficiaries
- ◆ Telephonic beneficiary and municipal follow-up and confirmation surveys
- ◆ Banking sector representatives
- ◆ Social housing institutions (SHIs)

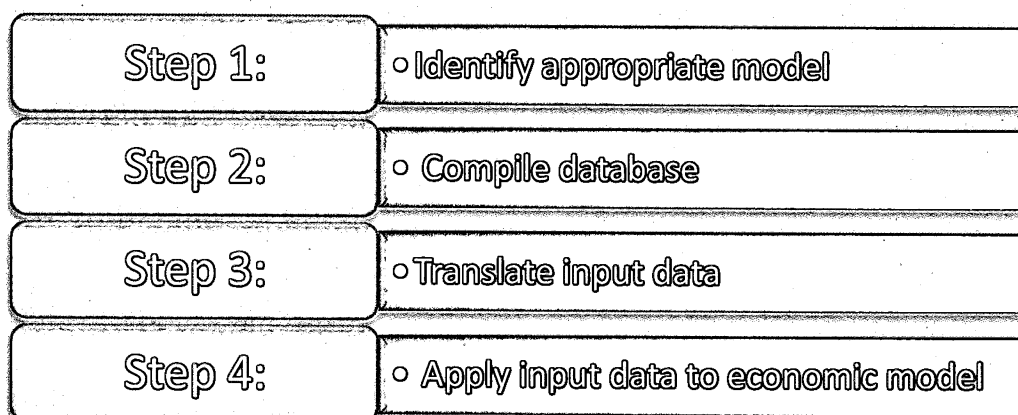
All interviews were conducted using standardised and semi-structured questionnaires (interview schedules) to ensure standardisation and comparison of responses and to make certain that core indicators were being covered.

Other than primary data collection, phase 2 also entailed the design of a economic impact model in order to quantify the economic impact. Various models are available, and given the data requirements, complexity, assumptions and limitations, the most appropriate model was selected. Four steps were involved in quantifying the economic impact assessment and each of these steps is outlined in figure 1.2 below.

The input–output model utilising the social accounting matrix (SAM) was selected as the appropriate model to analyse the National Housing Programme impacts. Certain parameters were identified from the primary research in order to enable an estimation of the required input data over the last 16 years.

For more information on the concept of impact modelling, the choice of modelling tool used, the impact modelling method, and the model limitations consult **Annexure B**.

Figure 1.2: Methodology for quantifying economic impact assessment



Once data collection and impact analysis had been completed, this integrated comprehensive research report, inclusive of analysis findings and recommendations, was prepared in **phase 3** in order to provide an understanding of the economic impact of government housing programmes since 1994. Consult **Annexure C** for detail regarding recommendations from provincial and municipal interviews regarding lessons that can be learnt from successful and unsuccessful projects.

1.3 Base data

The purpose of this section is to examine and understand the base data. For detail consult **Annexure D**.

The Housing Subsidy System (HSS) database was intended to be used as the study sample frame. At the time of the survey, this database contained 7 796 project entries. However, when the HSS database was compared with official delivery and expenditure as reported in the annual reports of the Department, it was evident that the database contained only about 69% of official housing delivery statistics and 67% of official expenditure. See Table 1.1. below.

Table 1.1: Housing delivery and expenditure comparison between HSS database and officially published statistics from annual reports

	HSS database		Official published statistics		
	Sum of houses completed	Sum of expenditure	Site and services	Sum of houses completed	Sum of expenditure
EASTERN CAPE	182 002	6 431 598 668	94 035	259 352	7 775 516 000
FREE STATE	154 236	4 845 733 081	10 893	197 738	5 613 918 000
GAUTENG	364 076	10 338 910 080	202 002	590 543	19 676 252 000
KWAZULU-NATAL	269 355	7 187 257 135	69 910	418 172	13 253 665 000
LIMPOPO	151 759	3 757 354 822	59 896	179 673	6 030 828 000

	HSS database		Official published statistics		
	Sum of houses completed	Sum of expenditure	Site and services	Sum of houses completed	Sum of expenditure
MPUMALANGA	120 117	3 485 324 344	33 381	178 576	4 857 113 000
NORTH WEST	137 915	5 595 640 571	86 677	212 375	6 540 173 000
NORTHERN CAPE	38 729	1 404 735 375	19 104	49 898	1 729 508 000
WESTERN CAPE	218 852	6 506 864 699	111 621	285 444	8 896 226 000
Grand total	1 637 041	49 553 418 775	687 519	2 371 771	74 373 199 000

According to the HSS database, social housing represents 41% of houses completed and 53% of expenditure. When the HSS is compared to the official data at programme level, social housing apparently represents 35% of expenditure and 40% of units. Based on discussions with department representatives, it was felt that the HSS database does not provide a true reflection of programme expenditure. Use of the HSS database as a basis for assessing the impacts at provincial and national level posed numerous limitations to the research. The HSS database was therefore utilised only to identify projects and not as a sample frame. A major limitation of the study was that a sample frame was not available, and therefore results could not be weighted.

Official delivery and expenditure statistics (see Table 1.2) was therefore used to obtain an understanding of the scale and extent of the National Housing Programme in terms of the costs associated with the programme, the provinces in which the housing programme was implemented, and the changes and trends that have occurred in the last 16 years.

Table 1.2: Official annual reports published housing delivery and expenditure statistics

Financial year	Sites	Houses	Expenditure (R'000)
1994/95	0	60 820	1 335 200
1995/96	0	74 409	931 000
1996/97	0	129 193	1 937 900
1997/98	0	209 000	3 135 000
1998/99	12 756	235 635	3 024 500
1999/2000	0	161 572	2 720 600
2000/01	19 711	170 932	3 039 700
2001/02	0	143 281	3 017 006
2002/03	82 286	131 784	3 735 197
2003/04	42 842	150 773	4 706 894
2004/05	87 284	148 253	4 481 638
2005/06	109 666	134 023	5 014 231
2006/07	117 845	153 374	6 495 433
2007/08	82 298	146 465	8 219 794
2008/09	68 469	160 403	10 359 945
2009/10	64 362	161 854	12 219 161
TOTAL	687 519	2 371 771	74 373 199

Capital expenditure and operational expenditure input data will be analysed separately.

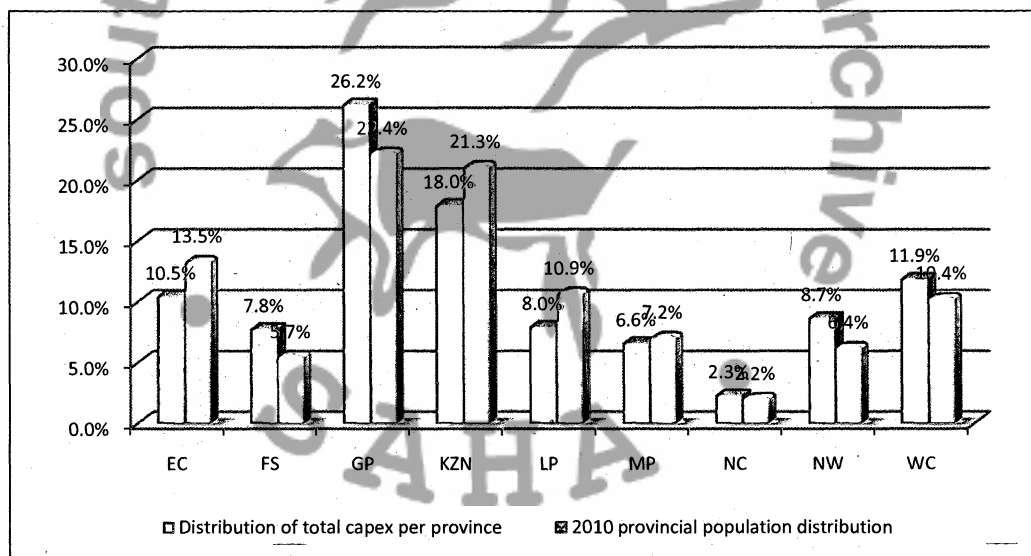
Capital expenditure analysis

A total of R115.56 billion at current 2010 prices in capital expenditure has been spent. Of the total capital expenditure, R99.41 billion at current 2010 prices was spent by the Department of Human Settlements and the remaining R16.15 billion by other national departments, local municipalities, and the social housing institute.

The billions of rand that were spent translate into the construction of approximately 2.37 million houses for the 1994–2010 period. Given the 2010 mid-year estimate for the total South African population of 49 991 300 (StatsSA mid-year estimates, 2010) and the beneficiary survey results that there are 4.6¹ persons per household, it can be assumed that National Housing Programme has resulted in the provision of homes for approximately of 21.8% (10 910 147 people) of South Africa's population.

Figure 1.3 illustrates the breakdown of the provinces in which the R115.56 billion was spent.

Figure 1.3: Capital expenditure per province relative to population for 2010



Source: UE Calculations based on data from Department of Human Settlements, 2010 Housing Survey and Quantec Standardised Regional Data, 2010

Figure 1.3 shows that the greatest proportion of capital expenditure for the housing programme was spent in Gauteng (26.2% of total capital expenditure), followed by Kwazulu-Natal (18.0%) and Western Cape (11.9%). The provinces that experienced the least capital expenditure are Northern Cape (2.3%) and Mpumalanga (6.6%). In general the province with the greater population incurred a higher capital expenditure.

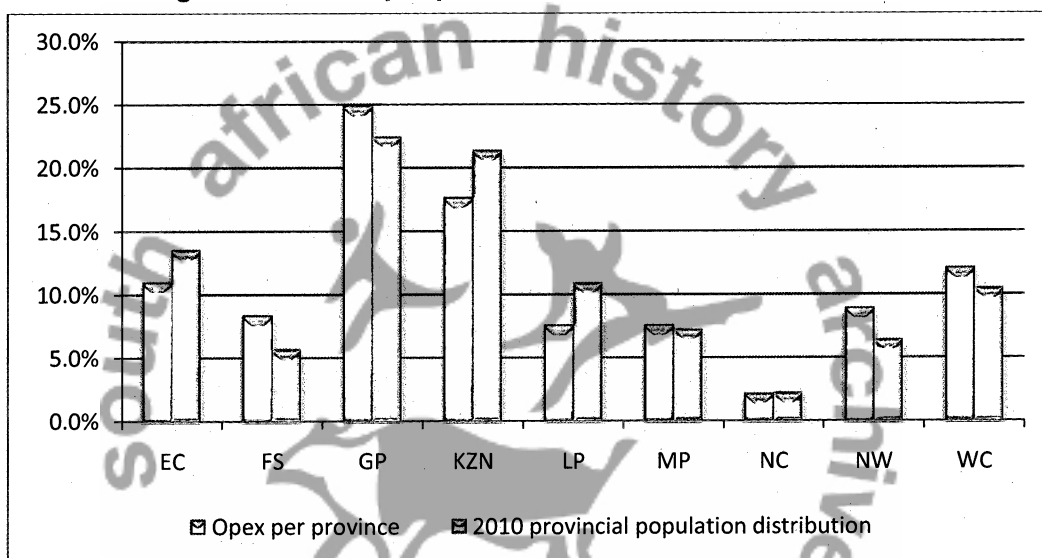
¹ Beneficiary survey, 2010: n=788

Operational expenditure analysis

The cumulative operating expenditure for the 1994–2010 period indicates that the total operating expenditure at current 2010 prices is R2.11 billion. Operating expenditure refers to those expenses that would not have occurred if the houses had not been constructed. The operating expenditure consists of maintenance costs, expansion costs, purchases of furniture/appliances, services costs, rental expenses and rates and taxes. The operating expenditure is relatively smaller than the capital expenditure, although the operating expenditure will be experienced for a longer period of time.

The expenditure for operations has been spent mainly in Gauteng (25.7%), and KwaZulu-Natal (17.0%). See figure 1.4.

Figure 1.4: OPEX per province relative to 2010 population



Source: UE Calculations based on data from 2010 Housing Survey and Quantec Standardised Regional Data, 2010

To summarise, the analysis of the input data indicates that totals of R115.57 billion and R2.11 billion had been spent on the construction of homes for the capital and operational expenditure phases of this programme, the result of which has been the development of 2.37 million houses.

1.4 Study challenges and limitations

Challenges to and limitations of the research relate to:

- ◇ Numerous challenges were encountered with the base data in that it was noted that there is no relationship between the HSS database and official housing expenditure noted in the annual housing reports with the result that the HSS database was identified as not being reflective of the realities on the ground. The HSS database could thus not be used as the sample frame with resultant lack of knowledge of programme and urban-rural expenditure split, and inability to undertake weightings of study results.
- ◇ Projects took place over sixteen years and limited to no record keeping is noted, other than that in the HSS database. Where project-specific data was kept it proved hard to source and

limited support was attained to obtain files and extract information.

- ◆ Low levels of responses from Province and local municipalities was often encountered due to high staff turnover which results in limited retained knowledge of projects. In cases of newly appointed staff, team members were referred to external persons such as contractors to gather the required information.
- ◆ Obtaining information from engineers/finance/treasury sections within the Municipalities, albeit limited information required, also proved difficult.
- ◆ Provincial and municipal officials had limited economic data, knowledge and perceptions of the economic impacts of housing projects.
- ◆ Limited information and support was obtained from contractors. Many left the country, disappeared or became liquidated after 'failed' projects, or refused to form part of study. Often neither province, nor the municipalities were able to provide contact details of contractors. In some cases where contacts details were obtained the contact details changed and the contractors could not be traced.
- ◆ Major differences in the scale of impacts between projects made it difficult to determine valid averages, which is why 5% trimmed averages have been used.

In the light of these limitations it is important to interpret findings with caution and to generalise findings only to the spectrum of government housing projects, and beneficiaries associated with those projects. However, the sampling of projects along key criteria that are likely to affect economic impact, such as employment creation, ensured some degree of validity for the findings regarding economic impact, and the ability to present findings on national aggregate levels in line with those criteria. However, a further breakdown of findings would not be scientifically valid or defensible.

1.5 Report outline

The remainder of the report is structured as follows:

- ◆ **Section 2:** Quantification of economic impact
- ◆ **Section 3:** Achievement of intended outcomes
- ◆ **Section 4:** Recommendations to improve economic impact

2. QUANTIFICATION OF ECONOMIC IMPACT

Economic benefits associated with government housing programmes are often overlooked. However, there is a strong link between the two. Government's housing programmes create jobs that bring increased income and wages to local communities. These programmes also raise demand for construction supplies and materials that generate tax revenues.

As Human Settlements Minister Tokyo Sexwale stated in his 2009/10 Human Settlements Budget Vote address to Parliament on 30 June 2009:

The construction of every new home is a mini economic dynamo. It stimulates the mining sector to mine more copper, iron ore and other raw materials. It stimulates the manufacturing sector to manufacture more pipes, bricks, doors and windows. It stimulates the retail sector to sell more furniture, appliances and white goods. The multiplier effect can never be underestimated.

This section outlines the economic multiplier effect of government's human settlements programmes, and the quantification of the economic impact on the economy as a whole. These sub-sections are covered:

- ◆ Economic indicators and parameters
- ◆ Quantification of the economic impact
- ◆ Interpreting the quantified economic impacts
- ◆ Conclusion

2.1 Quantification of economic impact indicators and parameters

These economic indicators have been selected to measure/quantify the effects of the National Housing Programme:

- ◆ **Production:** According to StatsSA, (Concepts and Definitions for Statistics South Africa, 2010) production is defined as the process, carried out under the responsibility, control and management of an institutional unit, in which labour and assets are used to transform inputs of goods and services into outputs of other goods and services. All goods and services as outputs must be such that they can be sold on markets, or at least be capable of being provided by one unit to another, with or without charge. The level of production of various goods and services related to housing construction was required to increase in order to implement the National Housing Programme. Thus the economic impact assessment will measure the change in the level of production owing to implementation of the housing programme. Simplistically stated, the EIA measures the changes in the level of production for

various goods and services in order to meet the demands required to implement the National Housing Programme.

- ◆ **Gross national product (GNP):** According to the National Spatial Development Perspective (2006), 'gross national product' refers to the total value of all final goods and services produced by a nation in a specified period (generally expressed quarterly or annually), plus the income earned by local residents in other countries through foreign investments, minus the value of income earned by overseas residents in the domestic economy. For the purpose of this study, GNP is the same as gross domestic product (total value of final goods and services produced by a nation in a specified period) as it is not expected that the housing programme will generate income for non-residents or residents in other countries.
- ◆ **Employment created:** The implementation of the National Housing Programme resulted in the creation of employment opportunities. The nature and term of the employment opportunities created, particularly those jobs created directly by the housing programme, may not necessarily be sustainable/long-term employment opportunities. This is so because it was estimated that on average it takes one person 3.1 man months² (13 weeks) to complete one housing unit. The short-term nature of some of the jobs also has an implication on the way the Economic Impact Assessment identified the number of jobs created based on the National Housing Programme. The Economic Impact Assessment results are not presented for the number of jobs created for a couple of weeks but instead it is presented for the number of jobs created within one year (or 44 weeks). As a result even if for example within a given year 155 persons in total were employed, each of whom had to build one house each, the results of the Economic Impact Assessment will indicate that 50 employment opportunities were created. For the sake of this example one employment opportunity created per year is equal to about 3.1 actual jobs (155 divided 50). As such if a job has been created for less than a year it is not calculated as an individual employment opportunity instead the combination of various short-term job opportunities are added together to calculate the number of jobs created within one year. Therefore the results that are presented based on the Economic Impact Assessment, particularly for the construction related jobs are unlikely to reflect the actual number of jobs created but rather the employment opportunities created per year based on the assumption that one employee works for 3.1 man months to complete one housing unit.
- ◆ **Income created:** The implementation of the National Housing Programme increased the demand for goods and services, resulting in higher production and employment. This therefore created an increase in the level of income. The change in income generated will also be indicated. The income created due to the housing programme will be defined in the latter sections of the report in terms of the main individuals and/or organisations that benefitted from it.

² A man-month is equivalent of the amount of work that is performed by one person in a month. It reflects the productive effort made by one person in a 4-week period, assuming five days of work per week and eight hours of work per day.

Economic indicators can be differentiated in terms of their direct, indirect and induced economic impacts:

- ◆ **Direct:** 'Direct impact' refers to the known/planned operating expenditure. An example is the increase in employment opportunities, such as the employment of construction workers that work directly on building the houses.
- ◆ **Indirect:** This effect may also be referred to as 'supplier impact'. The implementation of the housing programme is expected to increase demand for products and services from suppliers. An example is the increase in the manufacture of construction materials to meet the greater demand. As such, the production of construction materials is expected to increase.
- ◆ **Induced:** Induced impact may also be referred to as 'consumer/household impact'. An example is the increased level of incomes that may be attained by employees who, as a result, would increase their demand for goods and services.

The different types of impact are expected to occur in two phases, namely the capital expenditure phase and the operational expenditure phase. Each of these phases is defined below:

- ◆ **Capital expenditure:** This type of expenditure occurs during the construction period. Traditionally CAPEX could be described as less sustainable relative to operating expenditure. It occurs for a relatively shorter timeframe and can be described as the development phase of the project. However, CAPEX in the context of the National Housing Programme cannot be classified precisely using the traditional/general definition, mainly because of the nature of the housing programme. In this instance CAPEX refers to all expenditure relating to the construction of the houses that has occurred in the last sixteen years, and is expected to continue in the foreseeable future.
- ◆ **Operational expenditure:** Operational expenditure is viewed as more sustainable, occurs for a longer timeframe, and takes place during the operating phase of a project. The operating expenditure related to the National Housing Programme includes maintenance and upgrading of the housing unit; purchasing of furniture and appliances that would not have been bought if the housing units had not been built; rental paid to the social housing institute; and expenses for basic services, rates and taxes paid to local municipalities.

The capital expenditure input parameters utilised include:

- ◆ Capital expenditure by the Department of Human Settlements at current 2010 prices.
- ◆ Capital expenditure contributions by organisations other than the Department of Human Settlements in supporting the National Housing Programme have been identified and quantified. These contributions are:
 - The local municipality is believed to have contributed towards the socio-economic facilities, such as schools and health facilities, bulk infrastructure, and services. The estimated costs incurred by the local municipality for the socio-economic infrastructure are an average of

R93³ per unit, while the estimated cost of contribution towards the bulk infrastructure as well as to line services is R437⁴ per unit from 1994 to 2004; R437.00 plus an additional 10% of total expenditure per unit from 2005 to 2006 (to represent the expenditure on land) and R22 000.00 per unit (to represent expenditure on services separate from top structure expenditure) plus 10% of total expenditure from 2007 to 2010.

- Other departments, such as the Department of Education and the Department of Health, contributed on average R900⁵ per unit towards socio-economic investments.
- Housing beneficiaries need to contribute financially towards their homes, although limited financial contribution has been obtained. On average beneficiaries contribute an estimated R1 076⁶ per unit immediately after occupation for upgrading, extensions, and improvements to the unit, such as plastering and painting walls, creating internal divisions, inserting ceilings.
- ◆ The average number of persons employed is 3.1⁷ workers per unit per month.
- ◆ The average wage of employees is R135⁸ per day per worker.
- ◆ On average, approximately 25% of total expenditure⁹ is used on labourers, 63% on materials and 12% on other.
- ◆ Average contractor's profit is 5%¹⁰ per unit.
- ◆ The average split in expenditure per unit is 30% on services and 70% on top structures.

Operating expenditure parameters utilised include:

- ◆ Beneficiary maintenance amounts to R180¹¹ per unit per annum.
- ◆ Beneficiary expenditure on durable goods such as furniture and appliances amounts to an average of R540¹² per annum per unit.
- ◆ Expenditure on rates and taxes (and rental in social housing) has also been identified as an operating cost. These costs/factors have been classified as operating expenses because they might not have been incurred if the National Housing Programme had not been implemented. The average income for rates and taxes (and rental in the case of social housing) is an average of R169¹³ per month per unit.

³ Kayamandi Municipal and Provincial project specific survey, 2010; n=81

⁴ Kayamandi Municipal and Provincial project specific survey, 2010; n=81

⁵ Kayamandi Municipal and Provincial project specific survey, 2010; n=81

⁶ Kayamandi beneficiary survey, 2010; n=772

⁷ Kayamandi Contractors project specific survey, 2010; n=11

⁸ Kayamandi Contractors project specific survey, 2010; n=8

⁹ Kayamandi Contractors project specific survey; n=10

¹⁰ Kayamandi Contractors project specific survey, 2010; n=10; and in line with the Subsidy Quantum from the Housing Code

¹¹ Kayamandi beneficiary survey, 2010; n=772

¹² Kayamandi beneficiary survey, 2010; n=772

¹³ Kayamandi beneficiary telephonic follow-up and confirmation survey, 2010; n=56

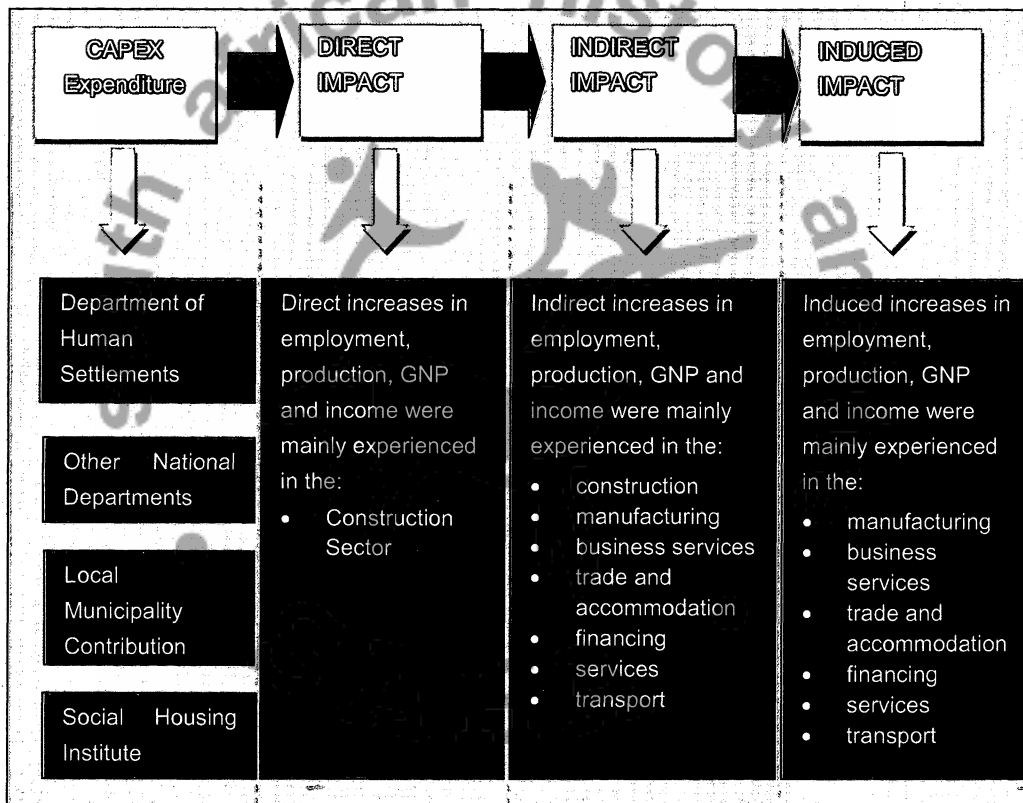
2.2 Quantification of the economic impact

The purpose of this section is to present the results of the quantification of the economic impacts. The economic impact assessment quantified the impacts of the National Housing Programme in terms of increases in production, GNP, employment creation and income generation. The economic impact findings will be presented per capital and operational expenditure phases.

2.2.1 Capital expenditure impacts

Figure 2.1 provides a simplistic illustration of the impact of the National Housing Programme as a result of capital expenditure. It illustrates the main bodies responsible for the capital spent, along with the main sectors impacted directly, indirectly, and through the induced effects.

Figure 2.1: Simplistic illustration of the capital expenditure impact



Capital expenditure occurs for a shorter period than operational expenditure. The total capital expenditure is valued at R115.57 billion for the period 1994 to 2010. The estimated impacts of this investment are presented in table 2.1 below, while the distribution of impact on each of the sectors based on the expenditure of the Department of Human Settlements and other spinoffs is presented in figure 2.2 and 2.3.

Table 2.1: Estimated impact of CAPEX

Impact	Direct (R billion)	Indirect (R billion)	Induced (R billion)	Total (R billion)
Production	R115.567	R144.706	R159.065	R419.338
GNP	R34.678	R51.745	R70.273	R156.696
Employment	854 653 jobs	77 376 jobs	354 742 jobs	1 286 771 jobs
Income	R28.892	R23.455	R31.148	R 83.495

Figure 2.2: Sectoral impact of capital expenditure by the Department of Human Settlements

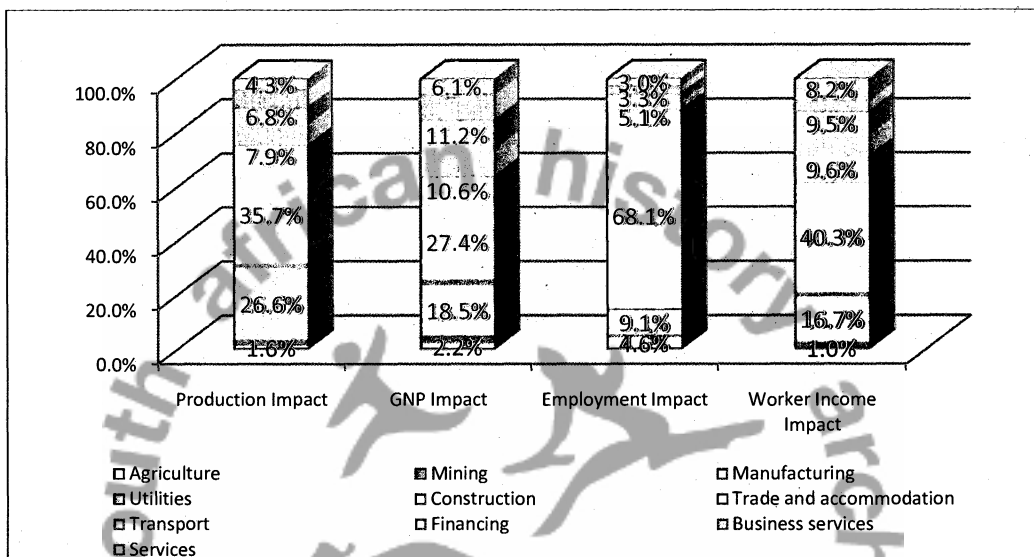
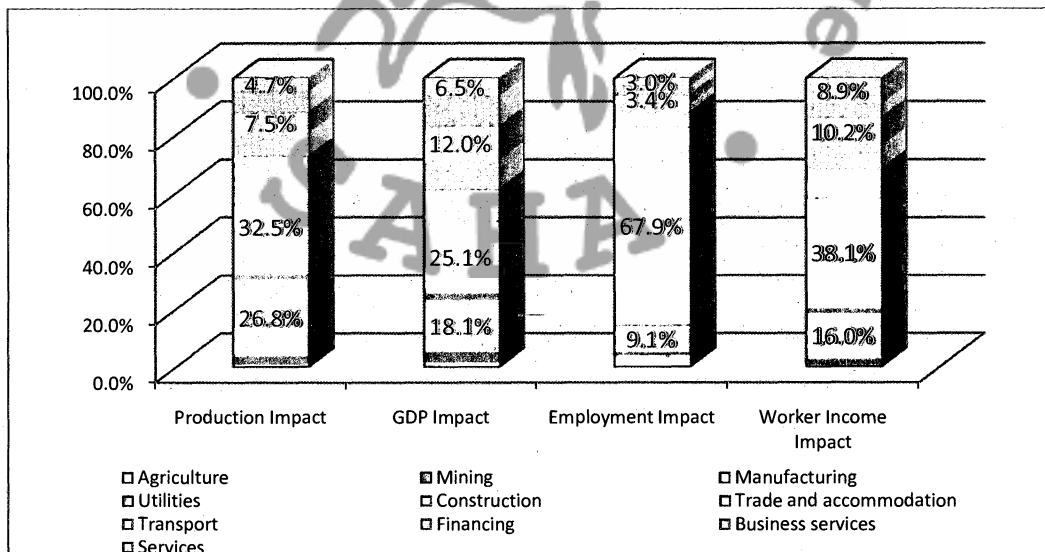


Figure 2.3: Sectoral Impact of spinoff capital expenditure



From table 2.1 and figures 2.1–3, these observations can be made:

- ◇ The economic impacts presented relate to the backward linkages created. 'Backward linkages' refers to the supporting industries, institutions and individuals that benefitted from the housing programme. For the purpose of this study, the forward linkages are the beneficiaries of the

housing programme, as well as industries that benefit from the increased disposal income of the beneficiaries. The forward linkages have not been quantified through the EIA, but these linkages are believed to include the following:

- The delivery of homes to households may have assisted in the provision of collateral for beneficiaries to gain loans.
- The savings incurred because of subsidised homes may have assisted in an increase in disposable income, thereby allowing for expenditure on goods other than rent or higher mortgage.
- Income generation opportunities have increased through the creation of rental accommodation, home-based businesses, exposure to greater market (greater population in new settlement)
- Savings on costs have occurred owing to improved efficiencies and increased accessibility
- ◆ The total capital expenditure for the National Housing Programme for the 1994–2010 period is estimated to have resulted in an increase in the total production of R419.34 billion. A breakdown of the total production impact indicates that an increase in production directly related to the construction of houses was calculated at R115.57 billion, while the remaining R144.71 billion and R159.07 billion has been created through the indirect and induced effects. It is encouraging to note that for every R1 spent a return of R3.7 was experienced. The building and other construction sectors benefited directly from the housing programme, as indicated in figure 2.1. Production also increased quite significantly in the manufacturing and construction sector owing to the indirect impact of the capital expenditure. Furthermore, the main sector affected by the induced impact was manufacturing, as 31% of the total induced impact was experienced by this sector. Transport, finance, trade and accommodation also experienced significant impacts owing to the induced effect. Although data is not available, it is believed that the smaller economies benefitted substantially less from the increases in production. Instead, the larger more diversified economies are expected to have benefitted most by the capital expenditure. Further emphasis on supporting smaller economies where possible should be encouraged through policy changes in order to develop and create more sustainable local economies.
- ◆ The housing programme is estimated to have contributed R34.68 billion to the GNP through direct investment. The suppliers to the construction industry experienced additions to the GNP of R51.75 billion, and owing to increased consumer spending (induced impact), a further R70.27 billion was contributed to the GNP. The GNP experienced a similar distribution in impacts per sector for spending by the Department of Human Settlements and for the other spinoff effects, as indicated in figure 2.2 and figure 2.3.
- ◆ The housing programme created a total of 1 286 771 employment opportunities during the construction period. It is estimated that 854 653 employment opportunities were created directly by the programme, while an increase in employment of 77 376 was experienced in

industries supplying goods and services to the housing programme and a general increase of 354 742 employment opportunities was created. These direct employment opportunities are believed to have been less sustainable, whereas the indirect and induced employment opportunities are expected to have been longer term. Figures 3.11 and 3.12 show that the bulk (approximately 68%) of these employment opportunities has been for the construction sector. This could reflect the labour-intensive nature of the construction industry and also the implementation of policies that promote labour-intensive projects. In addition to the construction sector, the manufacturing sector experienced increases in employment opportunities, particularly through the induced impact. Besides employment creation, improving the level of skills for employees is assumed to have occurred.

- ◆ Another important element of the housing programme has been stimulation in income levels. A total increase in income levels of R83.49 billion was created. Of this, R28.89 billion is directly because of the housing programme; R23.46 billion is as a result of the indirect impact; and R31.15 billion is due to the induced impact. The main beneficiaries of increased income through the indirect impact are employed in the manufacturing, construction, finance, trade and accommodation sectors. Furthermore, employees impacted through the induced impact are in the manufacturing, construction, trade, finance, transport and services sectors. Government forms part of the services sector and is expected to have increased its level of income by obtaining higher levels of income tax and other forms of tax. Unfortunately detailed data is not available to assess the distribution of the income earned for the various sectors. This relates to understanding whether the increased income is distributed to large number of people or accrues to only a handful. To ensure the equitable distribution of income, greater focus should be placed on supporting SMMEs in the various sectors.

2.2.2 Operating expenditure impacts

The operating expenditure for the National Housing Programme was calculated at R6.68 billion. Table 2.2 quantifies the total impacts. Figure 2.4 provides a simple clarification of the main body responsible for the operating expenditure, which is identified as households. Figure 2.5 indicates the main sectors affected by the operating expenditure.

Table 2.2: Estimated impact of OPEX

Impact	Direct (R billion)	Indirect (R billion)	Induced (R billion)	Total (R billion)
Production	R 2.11	R 2.12	R 2.63	R 6.86
GNP	R 0.49	R 0.96	R 1.16	R 2.61
Employment Creation	3 640 jobs	1 268 jobs	5 894 jobs	10 802 jobs
Income	R 0.38	R 0.51	R 0.52	R 1.41

Figure 2.4: Simplistic illustration of the operating expenditure impact

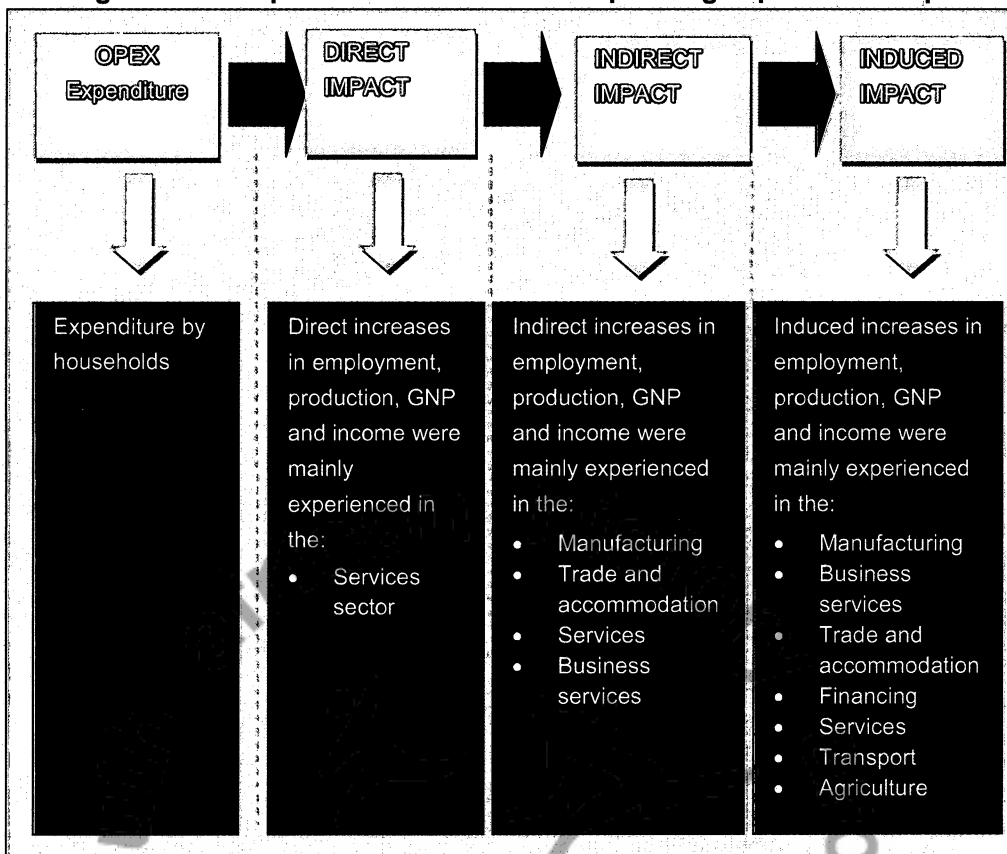


Figure 2.5: Sectoral impact of OPEX

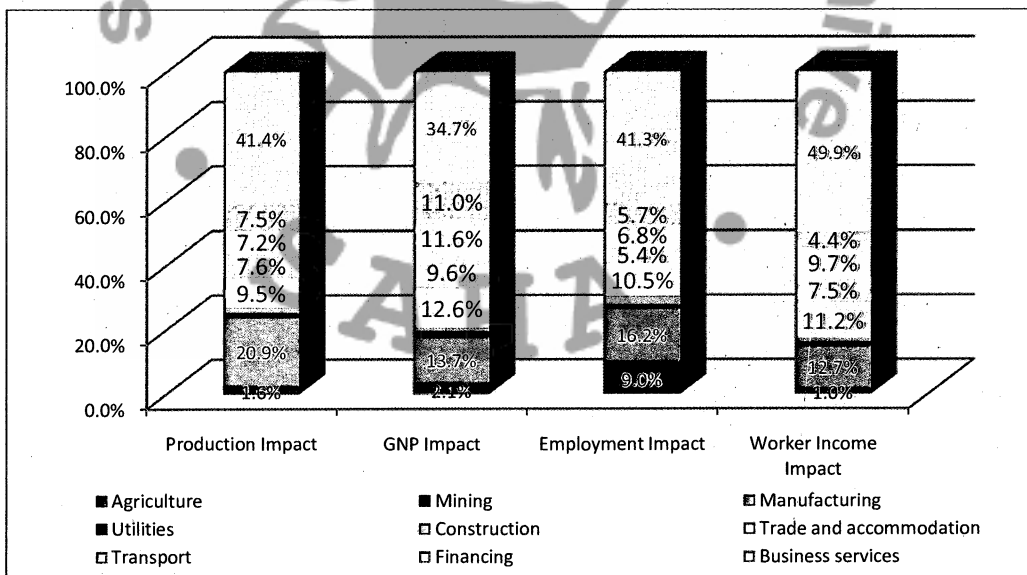


Table 2.2 and figures 2.4 and 2.5 indicate the following:

- ◆ The nature of operating expenditure is quite different from capital expenditure. As a result, the main sectors/industries affected by operating expenditure differ from those impacted by capital expenditure.
- ◆ The amount of money spent in maintaining and operating a home (operating expenditure) by

households that benefitted from the National Housing Programme is expected to be lower than the expenditure that would occur for those households that purchased their homes without government support. In general this is also likely to ensure that the lifespan of the home constructed through the National Housing Programme is shorter than the lifespan of a home purchased without government assistance.

- ◆ Through the operating expenses incurred in implementing the housing programme, it is estimated that total production has increased by R6.86 billion. This consists of R2.11 billion through direct investment; R2.12 billion through indirect effect; and R2.63 billion through induced effects. The indirect and direct impacts account for 69% of the total impact. This indicates that for every R1 spent, a return of R3.3 was realised owing to the indirect and induced impacts. The production increased directly in the services sector while in addition to the services sector, the indirect impact was most significant in that experienced by the manufacturing, trade and business services sector.
- ◆ The total increase in gross national product based on the operating expenditure is valued at R2.61 billion. Of this, 19% is as a result of the direct impact of the programme, while the remaining 81% is due to the indirect and induced effects.
- ◆ Of particular importance is the estimated increase in the level of employment by approximately 10 802 created through operational expenditure. Employment created through operating expenditure is expected to have had a greater significance/impact on the national economy, because this type of expenditure generally creates more long-term/permanent employment opportunities. It can therefore be observed that 3 640 employment opportunities were created directly through the housing programme, while the housing programme enabled the creation of 1 268 through indirect effects, and 5 894 employment opportunities were supported through the induced effects of this programme.
- ◆ The operating expenditure is also anticipated to have increased the level of income by R1.41 billion. In addition, the operating expenditure has had a relative smaller impact on the construction sector relative to the impact identified owing to capital expenditure. The main sectors impacted by the operating expenditure are services, manufacturing and trade.

2.3 Interpreting the quantified economic impacts

The purpose of this sub-section is to interpret the quantified economic impacts in a broader context. This allows for a holistic view of the impact of the National Housing Programme. The interpretation is based on urban versus rural impact, the impact on South African development indicators, and the opportunity cost of the housing delivery programmes.

2.3.1 Urban versus rural impact

Local impacts are greater in larger, more diversified economies, because they have the capacity to supply more of the goods and services that a development requires. While housing is a domestic rather than an export sector, it makes an important contribution to local economies. Spending on affordable housing developments, where demand continues to exceed supply, will help the construction sector.

People who live in inner city residential blocks come mainly from rural areas and township areas in the same city. There is an infiltration from rural to urban areas as well as relocation between urban neighbourhoods of the same city.

The South African Institute of Race Relations (SAIRR), in its recent 'More People In Urban Areas Survey', revealed that more South Africans are living in urban areas than ever before. In 1990, 52% of the population lived in urban areas, increasing to 62% in 2010. Gauteng, Western Cape and KwaZulu-Natal, the provinces with the largest urban areas, recorded the largest inflow of migrants. The provinces with the largest rural areas, namely Eastern Cape and Limpopo, are expected to see the largest out-flow of migrants. People are increasingly moving to the provinces with the largest economies as there were more job opportunities.

This trend affects service delivery because provincial governments with large inflows are chasing moving targets because their populations are continuously on the rise.

When comparing major metros with smaller settlements and comparing towns and urban areas with rural areas, it is relevant to note that in smaller towns and rural areas local skills are not readily available, and fewer materials are available locally, with resultant fewer local job opportunities and thus lower economic impact from delivery of government houses. Furthermore, in rural municipalities the availability of bulk infrastructure for the distribution of services is a major concern.

Rust (2008) indicates that while the principle of equity is suggested visually with the same standards and finishings, the moment a subsidised house is handed over to a qualifying beneficiary, its value changes from the input costs, as determined by the national minimum norms and standards, to the market value prevalent in that particular location. A government-subsidised house in a well-located urban area will have a higher value than one delivered at the same time in a more rural area, with the result that residents in urban areas get more value than residents in rural and peri-urban areas (Rust, 2008).

A large portion of the expenditure has taken place in largely rural provinces such as Eastern Cape (R7.75 billion) and Limpopo (R6 billion), thereby stimulating economic activity in provinces that face deep-rooted economic challenges.

Government's past focus on delivering settlements outside economic hubs has proved detrimental to the poor living there. Government should thus increasingly focus on well-located housing and

inner city housing in order to make human settlements a reality.

2.3.2 Impact on South African development indicators

The purpose of this section is to examine/analyse the contribution the National Housing Programme has made to development in South Africa. South African Development Indicators 2010, published by the National Treasury, has been used as a guideline to determine the contribution the National Housing Programme has made towards development in South Africa.

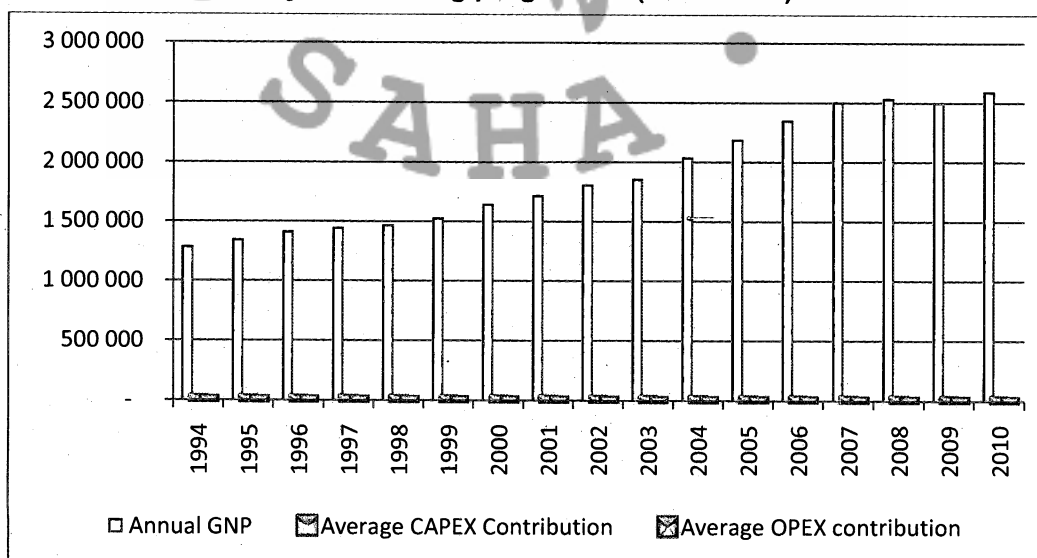
The contribution the National Housing Programme to these South African Development Indicators are evaluated:

- ◇ GNP growth
- ◇ GNP per capita
- ◇ Fixed capital formation
- ◇ Balance of payments
- ◇ Employment
- ◇ Meeting the housing needs

GNP growth

GNP growth is critical for the development and improvement of the socio-economic conditions in a given economy. Figure 2.6 illustrates the changes in the annual GNP (constant 2010) values compared with the average GNP contribution per year by the National Housing Programme for the 1994–2010 period.

Figure 2.6: Total GNP relative to the average contribution to GNP by the housing programme (1994–2010)



Source: Urban-Econ calculations and SARB data

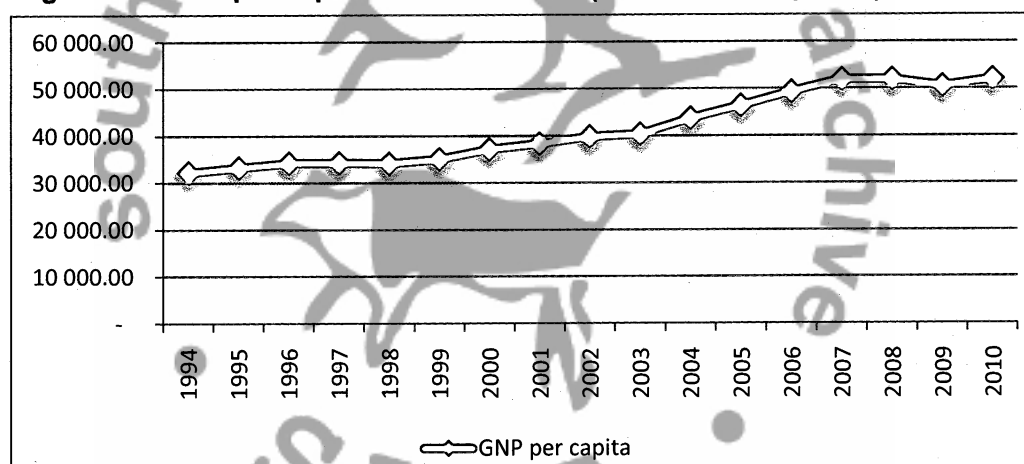
From figure 2.6 above, on average the GNP created through capital and operational expenditure contributed per year approximately 0.55% and 0.01% respectively towards the total annual GNP. It can therefore be assumed that the housing programme plays a small but important role in growing the economy, and when the programme discontinues, a possible negative impact could be experienced in the domestic economy.

GNP per capita growth

Although the GNP is useful tool for understanding the economy, it does not assist in indicating the standard of living in a specified area. The GNP per capita assists in this regard and is calculated as the GNP divided by the total population. Two countries may have similar GNP levels, but the country with the higher population is likely to have a lower standard of living than the country with a lower population level.

To ensure that the GNP per capita grows, the annual economic growth rate should be higher than population growth rate. Figure 2.7 below illustrates the GNP growth per capita for South Africa.

Figure 2.7: GNP per capita for South Africa (constant 2010 prices) 1994–2010



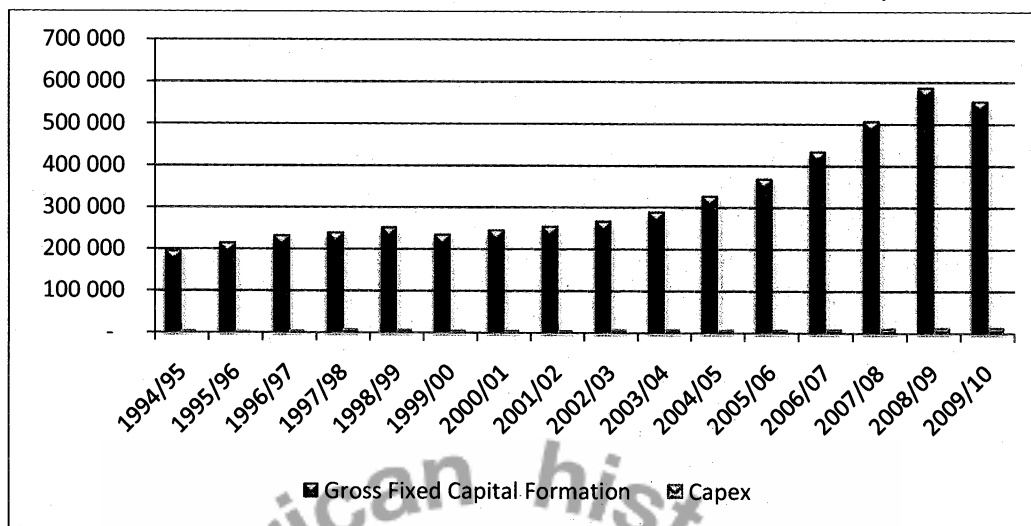
Source: Urban-Econ calculations using SARB data and Quantec Standardised Regional Data

Figure 2.7 shows that the GNP per capita has been growing steadily, although it did experience a decline in 2009 owing to the economic recession. The National Housing Programme could assist in improving the GNP through increased investment.

Gross fixed capital formation

According to the South African Development Indicators (2010), 'gross capital formation' refers to the 'total fixed investment by private companies and individuals, state owned enterprises and government including depreciation'. Gross fixed capital formation is also referred to as 'consisting of durable and reproducible tangible assets', according to the Developments in Fixed Capital Stock: 1960–1995 (Prinsloo et al, 1997). Houses built through the National Housing Programme form part of gross fixed capital formation. The contribution the National Housing Programme has made to gross fixed capital formation is indicated in figure 2.8 below.

Figure 2.8: Contribution of the National Housing Programme to gross fixed capital formation (2010 constant prices)



Source: Urban-Econ's calculation based on data obtained from South African Reserve Bank

Figure 2.8 indicates that gross fixed capital income has been increasing in the last sixteen years. The National Housing Programme has contributed towards the formation of fixed capital by contributing approximately 2.1% on average per year towards gross fixed capital formation.

Balance of payments

'Balance of payments' refers to the difference between total exports and imports. Increase in imports results in the creation of a deficit in the balance of payments, and thus translates into more outflows of money from the domestic country than inflows. A high deficit is viewed as a negative, as it indicates high dependence on other countries, and increases the risk facing a country. The balance of payment consists of a capital account and a trade account. The capital account relates to the flow of money for investments, whereas the trade account refers to the flow of money to purchase goods and services. The trade account for South Africa reached worryingly high levels in 2007 when the trade deficit was calculated at -7.2%. The situation improved as the trade deficit contracted to -4.0% in 2009.

It is believed that the National Housing Programme has not worsened the balance of payment as the required goods and services for housing are obtained in South Africa. This effect is unusual for big investments as many of these projects require the purchase of machinery and equipment from outside South Africa.

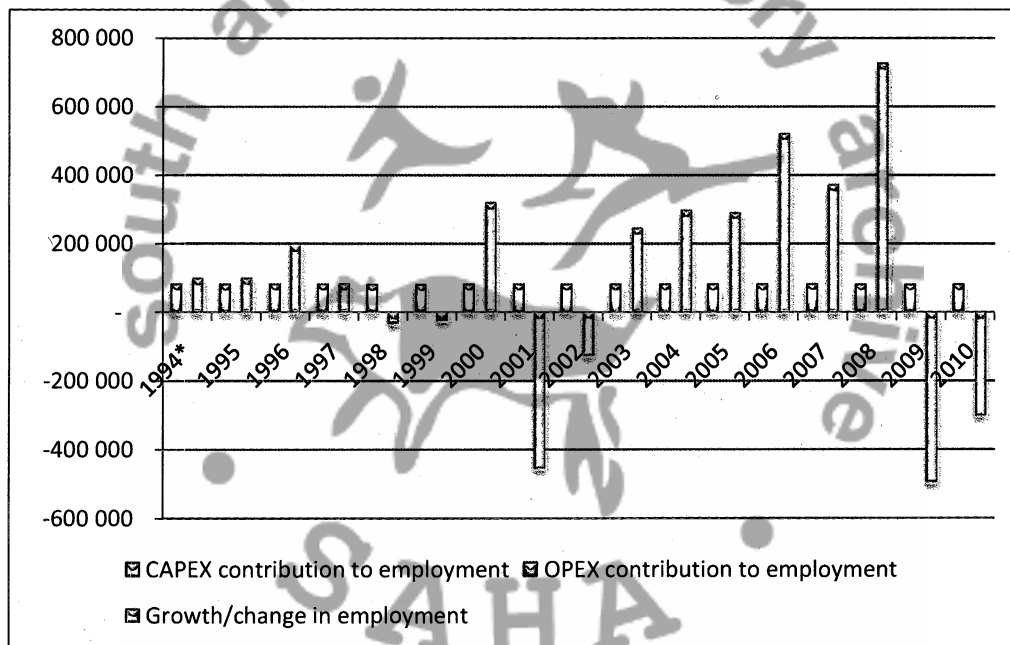
Employment

One of the significant impacts of the National Housing Programme has been the creation of employment opportunities. While it is understood that the direct jobs created are not permanent and could have been created in some cases for just a few months, a significant number of jobs have been created. To understand the extent/magnitude to which the National Housing Programme has

assisted in job creation, albeit for a short period in some instances, the average number of jobs created by the housing programme per year is examined relative to the overall change in employment per year.

Figure 2.9 indicates that erratic changes in employment levels have been experienced in South Africa over the past 16 years. It is estimated that on average 80 423 employment opportunities have been created through capital expenditure per year, whereas 675 employment opportunities have been created per year owing to the operational expenditure, illustrated in figure 2.9 below. The number of jobs created through the National Housing Programme through capital expenditure contributed on average 0.67% towards total average employment level for the last sixteen years, and based on operational expenditure, a contribution of 0.01% on average was provided towards the total average level of employment for the last sixteen years.

Figure 2.9: Changes in national employment level relative to jobs created through the National Housing Programme



Source: Urban-Econ calculation based on StatsSA Labour Force Survey and Quantec Standardised Regional Data and Housing Survey data

Figure 2.9 shows that the number of jobs created by the National Housing Programme is quite significant relative to the changes experienced in the level of employment. It is also apparent from figure 2.9 that if the jobs created by the National Housing Programme had been long-term employment opportunities, the National Housing Programme would have assisted remarkably in improving the high level of unemployment that persists in South Africa.

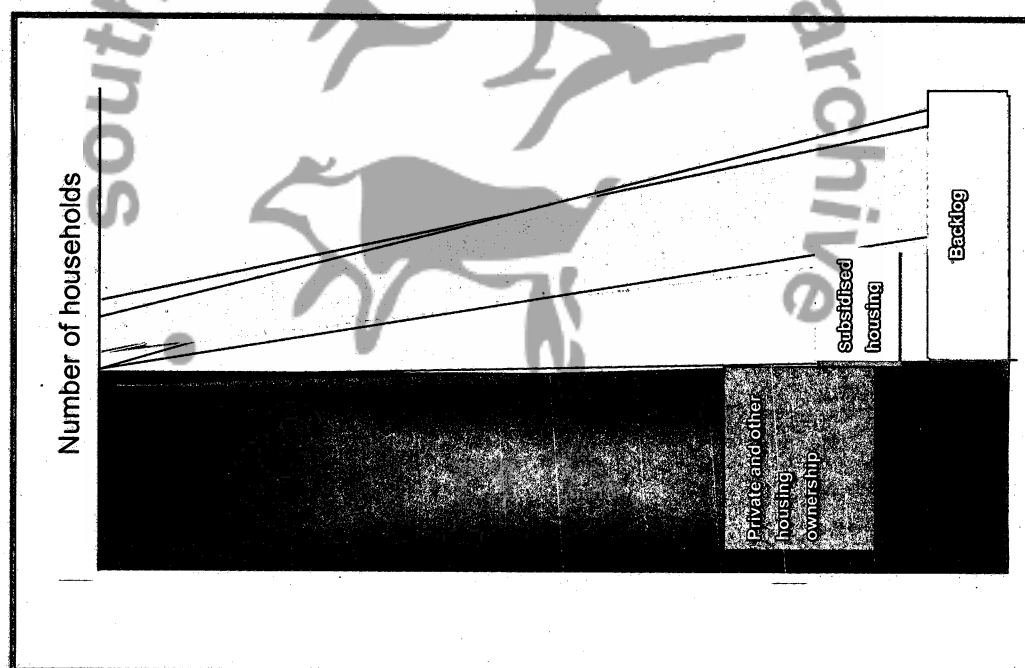
According to the SHF (2009) there is likely to be a limited difference between the direct multipliers of social housing and other housing programmes in construction activities. SRH requires ongoing maintenance, which creates employment opportunities. However, there is no evidence to suggest

that this is more than the employment created through the establishment of new residential areas and the need for increased public services, such as refuse removal, and road maintenance.

Meeting the housing needs

Given South Africa's history, a number of backlogs and shortages faced the new government in 1994, particularly the shortage of housing. According to *Housing in South Africa* (Knight, 2001), in 1994 when the ANC-led government came into power, there was 1 formal house for every 43 Africans, while there was 1 formal brick house for every 3.5 whites. The study also indicates that the urban backlog in 1994 for housing was estimated at 1.3 million. As at 2001 government required a further 2 million to 3 million houses to address the housing backlogs facing residents in South Africa. Most recently, in an address by Minister of Human Settlements Tokyo Sexwale to the National Assembly (21 April 2010), it was indicated that approximately 2.1 million houses are required to diminish the housing backlog. It is believed that population growth and high levels of urbanisation have contributed to the ever-growing housing backlog. A simplistic illustration of the ever-growing backlog and attempts to decrease it is shown below in figure 2.10.

Figure 2.10: Simplistic illustration of housing backlogs

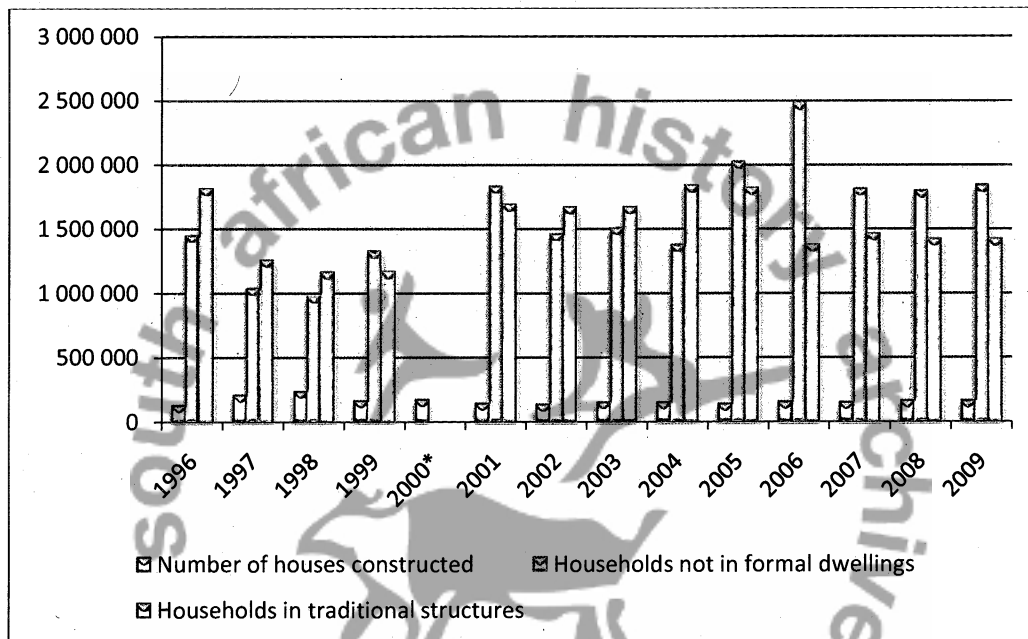


To further understand the existing housing situation in South Africa, data obtained from the South Africa 2010 Development Indicators has been utilised to compare the impact of the National Housing Programme with the rest of the country. Unfortunately the dataset presented in the development indicators is incomplete, and therefore no data is provided for the 1994, 1995, 2000 and 2010 periods.

Figure 2.11 indicates that although a number of houses have been built in the last 16 years, the number of people living in informal dwellings has increased. In 1996 1.5 million households lived in informal dwellings whereas in 2009 about 1.8 million households were identified as living in informal dwellings.

It is encouraging to note that unlike the informal dwellings, the number of traditional structures declined from 1.8 million households in 1996 to 1.4 million households in 2009.

Figure 2.11: Number of houses constructed or in the process of being constructed relative to informal and traditional homes



Source: Urban-Econ's calculation based on data from South Africa Development Indicators, 2010 and data obtained from the Department of Human Settlements

To conclude, the National Housing Programme has assisted significantly in the provision of housing. If these housing programmes had not been in place, the housing backlog would have been higher. However, more still needs to be done at a faster rate to ensure the provision of housing for all.

2.3.3 Opportunity cost of housing delivery programmes

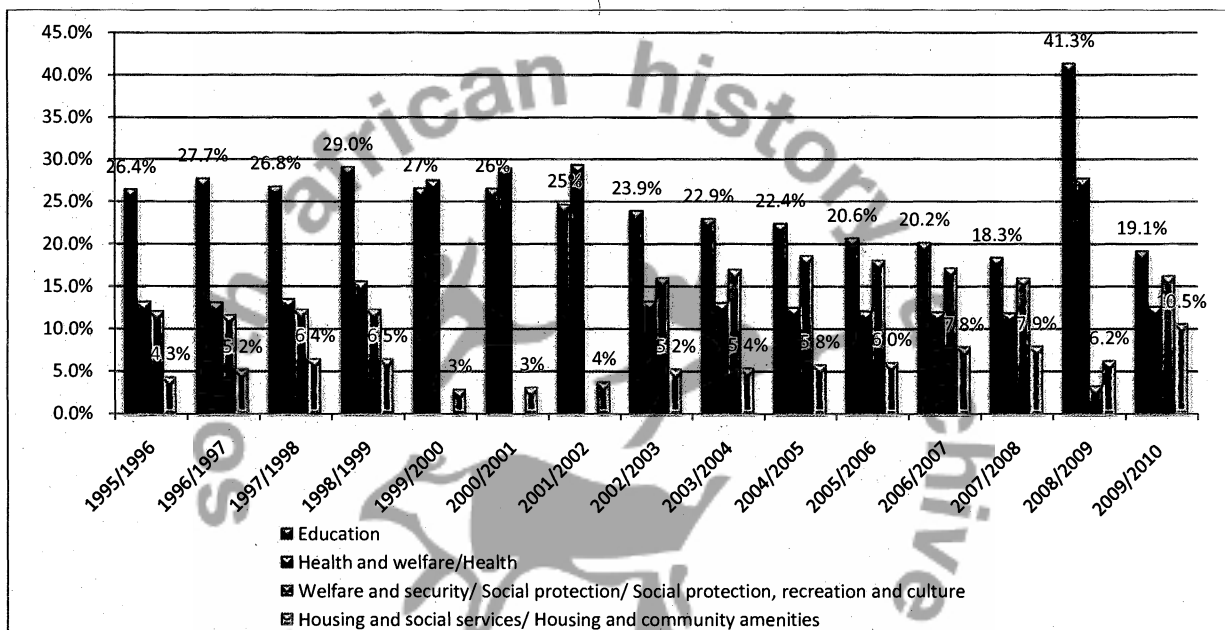
The purpose of this sub-section is to identify the opportunity cost of the housing programme. According to Botha et al (2001), opportunity cost is the 'value of that which is sacrificed or postponed by the exercise of a choice'. In identifying the opportunity cost, the budgetary allocation for housing relative to other functions is examined, along with the estimated returns that could have accrued if the money had been spent elsewhere.

Considerable sums of money have been spent on the provision of housing in South Africa. This is emphasised by figure 2.12, which indicates the budget allocation for housing and social services/housing and community amenities, relative to the budget of other government functions

within the social services function. This comparative analysis has been conducted because the functions within the social services strive to meet similar goals and objectives to the housing function. It is therefore assumed that increase in one function of the social services sector could mean a reduction in another function in that sector.

The various functions within the social services sector have not maintained a standard categorisation system, and there are instances in which functions have been consolidated or have overlapped, as indicated in the 1999–2002 period. Nevertheless, the data is comparable and provides an indication of the trends that occurred in recent years.

Figure 2.12: Budgetary allocation for social services (1995–2010)



Source: Urban-Econ calculations based on data obtained from the National Treasury Website, National Budgets

Figure 3.12 shows that the proportion of the total budget for housing and other social services/housing and community amenities has been increasing over the last 15 years as the function obtained approximately 4.3% of the total budget in 1995/1996, which increased to an approximate 10.5% in 2009/2010. During that same period, however, the proportion of the budget allocated to education declined from 26% in 1995/1996 period to 11% in the 2009/2010 period. In addition, the budgetary allocation for health and welfare/health had fluctuated in recent years.

It can therefore be assumed that the opportunity cost in increasing assistance to meet housing needs will result in smaller budgetary allocations for other functions. In other words, the opportunity costs for government mean that a smaller part of the budget (or fiscal revenue) will be available for other programmes, often intended for the same group of people.

Besides illustrating the opportunity cost of the housing programme by indicating the potential decreases in budgetary allocation towards other functions, the opportunity cost can be determined by understanding the differences in return that could have been obtained if the money spent on

housing had been spent elsewhere.

The economic impacts of the housing programme have been quantified. It had been determined for the housing programme that for every R1 spent, there will be a return of approximately R5.5. If the money were to be spent by other general government functions, however, R1 spent would generate R6.1. This means that spending on the housing programme is likely to provide a lower return than that generated by general government by approximately R0.6. On the other hand, investment in health and welfare is likely to see a return of R5.1 for every R1 spent.

It can thus be assumed that investment in housing will result in reasonably good economic returns, although if the money were to be spent in by other government functions, slightly higher economic returns could be forthcoming. However, the decision to invest in housing should not be dependent solely on the economic returns.

2.4 Conclusion

The purpose of this section was to identify, quantify and examine the economic impact of implementing the National Housing Programme. A number of steps were followed in order to quantify the economic impacts. The main outcome of these steps was the selection of the input-output model utilising the social accounting matrix and the quantification of the impact for four indicators, namely production, employment, income and GNP. The main finding of the economic impact assessment was that R115.57 billion was spent capital expenditure, while R2.11 billion was spent on operating expenditure. The impact of this spending included the creation of employment opportunities for approximately 1.3 million people through capital expenditure and 10 802 employment opportunities through operating expenditure over the past sixteen years. In addition, increases in GNP of R156.70 billion and R2.61 billion for capital and operational expenditure respectively were realised. After analysing the economic impacts, a number of observations were made. A summary of the positive and negative observations is given below.

Positive economic observations include:

- ◆ Spending/expenditure by national government supported economic development in South Africa. The factors contributing to economic development include:
 - Significant employment creation
 - Income generation for specified groups
 - Significant contribution towards total GNP
 - Contribution to gross capital formation
 - Improved skills
- ◆ The housing programme has subsidised rent in some cases and therefore indirectly supports other industries because the money that would have been spent on rent is spent elsewhere.
- ◆ It assists where the market fails because private developers would be unlikely to develop low-

cost housing, as it would not be economically viable.

- ◆ In addition to the income created for businesses and individuals, the housing programme resulted in the creation of income for government.
- ◆ The housing programme assists in the development of formal areas and thus supports other government departments/functions which include:
 - ◆ Emergency workers
 - ◆ Provision of basic services
 - ◆ Provision of health, safety and education
 - ◆ Provision of efficient transportation

Although many positive outcomes have been realised as a result of the National Housing Programme, some of its attributes/outcomes could be improved upon. These include the following:

- ◆ The value of the housing stock depreciates more significantly relative to the private housing owing to the lack of funds by the beneficiaries to maintain the homes.
- ◆ Housing projects have not led to the integration of the informal areas with the urban economic fabric/scene in which they live. Instead, in some cases ill-placed areas have been formalised. The result is that access to economic amenities and benefits has not always been realised.
- ◆ Although a large number of employment opportunities have been created, most of these jobs are short term, and do not have a sustained impact on the local economies.
- ◆ Limited benefits accrue to smaller economies. In remote areas, resources do not have the necessary threshold to handle larger housing projects. The companies that handle these projects are unlikely to assist in building the capacity of local resources because of the smaller level of the projects that are incurred.

To mitigate these challenges and maximise the impact of Housing the following should be ensured:

- ◆ Implement policies that assist in ensuring that the benefits are felt in the smaller economies.
- ◆ Ensure that the sites identified for housing development are well placed and improve the level of accessibility of households to economic amenities.
- ◆ Increase the productivity of workers.
- ◆ Decrease the costs per unit.
- ◆ Ensure maximum skills transfer.

If government stopped the housing programme at present – in which a large housing backlog still exists – a number of impacts and related cost implications could arise. For example, health and safety issues could surface and this could increase the costs for the welfare of citizens. In addition, social ills are more likely to transpire without government support for housing. These ills could again create greater costs to government.

To conclude, the National Housing Programme has provided houses for approximately 22% of the

population. The housing programme has been beneficial not only in providing houses to the beneficiaries of the housing programme, but also in stimulating economic activities for small and big businesses and generating income for various groups, including government itself. The programme still needs to be implemented at a faster rate if the housing backlogs are to be eliminated.



3. ACHIEVEMENT OF INTENDED OUTCOMES

Government housing programmes can be effective economic development tools that can assist with job creation, spatial restructuring, and poverty alleviation. This section is focused on the degree to which government housing programmes and investment and delivery over the past sixteen years have assisted in achieving the intended outcomes of the Department with regards to:

- ◆ Wealth creation, poverty alleviation and empowerment
- ◆ Employment creation
- ◆ Breaking barriers in the residential property market
- ◆ Sustainable human settlements and spatial restructuring

3.1 Wealth creation, poverty alleviation and empowerment

Housing delivery is often analysed in terms of social objectives. Less attention is given to the broader and sometimes indirect impact that housing markets and housing policy have on promoting wealth creation, empowerment and economic growth and development.

This sub-section reports on the achievement of the Department's intended outcome of ensuring that property can be assessed by all as an asset for wealth creation and empowerment, and refers to:

- ◆ Enhancing economic development potential
- ◆ Beneficiary affordability of housing

3.1.1 Enhancing economic development potential

The degree of government housing expenditure and delivery contributing to enhancing economic development potential can be measured, among others, in light of GNP, additional business sales, employment creation, and leveraging growth in the local economy.

GNP, business sales and employment creation

Government housing is important to the economy, and as quantified in the previous section, total expenditure on delivery of government housing programmes of R115.6 billion (at 2010 values) over the past sixteen years has:

- ◆ Generated GNP to the value of R157 billion during construction and R2.6 billion during operations
- ◆ Stimulated additional production during both construction of housing to the value of R419 billion and operation of housing to the value of R6.9 billion
- ◆ Created 1,286,771 jobs during the actual construction of housing and 10,802 jobs during operation
- ◆ Created income for businesses, individuals and government to the value of R83 billion during construction and R1.4 billion during operations

During construction, numerous local industries are involved in housing and jobs (and wages), and additional GNP, and new business sales are generated by the actual development and construction. The jobs include on-site and off-site construction work, as well as jobs generated in all the economic sectors, such as wholesale and retail sales of components, transportation to the site, and the professional services required to build a home and deliver it to the beneficiary. Housing construction by its nature is labour intensive and the majority of jobs created are unskilled. The wages and profits earned during the construction period are spent on other produced goods and services. This generates additional income for local residents, which is spent on still more locally produced goods and services, and so on. The construction of housing thus results in a partially recycling of income back into the community, which is called the 'multiplier' or 'ripple effect'.

Besides the construction impact, the operational impact represents the ongoing annual effect caused by local jobs, income, additional GNP and new business sales generated as a result of the home being occupied. A household moving into a new home generally spends part of its income on goods and services in the local economy. The household should also pay local government taxes. The ongoing annual effect results in a permanent increase in the level of economic activity, jobs, GNP, and new business sales.

The quantification of the economic impacts in the previous section, revealed that for every R 1 spent there will be a return of approximately R 5.5. If the money were however to be spent by other general government functions R 1 spent would generate a return of R 6.1. It can thus be assumed that investment in housing may result in reasonably good economic returns, although if the money were to be spent in by other government functions slightly higher economic returns could be forthcoming. However, the decision to invest in housing is not and should not be solely dependent on the economic returns.

If the government stopped the housing programme at present in which a large housing backlog still exists a number of different impacts and related cost implications could arise. For example health and safety issues could arise and this could increase the costs for the welfare of citizens. In addition, social ills are more likely to transpire without government support for housing. These ills could again create greater costs to government.

The main role of government is to intervene where the market fails. This refers to the market not being able to meet the demand for specific goods and services, and this failure can be attributed to a number of factors, which include the inability of the markets to distribute income equitably. The failure of markets to provide an equitable distribution of income can lead to negative socio-economic conditions that include a lack of adequate housing provision. Therefore government can play a distributive role to assist in the provision of adequate housing for citizens who are unable to fulfil

their housing needs. Many citizens in South Africa do not obtain equitable levels of income, and therefore the National Housing Programme has been implemented to assist with this challenge.

Leveraging growth in the local economy

Government housing delivery programmes leverage growth in the local economy through appointment of local contractors and enhancing local expenditure.

The benefit of increased local jobs can also be rendered in economic terms. In essence, additional local jobs result in further local income creation. This increase in income in the local area can be translated into specific impacts, ranging from B-BBEE to poverty alleviation, depending on the procurement policy and the construction technology.

Beneficiaries mostly revealed that temporary or permanent jobs are not made available to locals, and contractors predominantly utilise their own labourers. Besides some casual jobs during construction, most beneficiaries were not aware of employment opportunities. Nonetheless, the actual construction of the housing project created work for approximately 16%¹⁴ of the beneficiary households.

In terms of **employment equity**, the municipal surveys revealed that:

- ◆ Good employment equity is not always followed.
- ◆ Some provinces follow supply chain management principles.
- ◆ Municipalities that are not accredited believe that local people are not prioritised because projects are handled at provincial level.
- ◆ Procurement policies and procedures are effective and efficient, but the issue is with their implementation and enforcement.
- ◆ Municipalities promote employment through ensuring that local contractors are used for smaller projects. On bigger projects, contractors are forced to use local sub-contractors.

Local labour and small building contractors are favoured in all projects, according to contractors. However, only approximately 59%¹⁵ of projects used a local construction company. Of these, approximately 79%¹⁶ used small building sub-contractors.

Given the aim of achieving well-balanced housing development, sufficient local buying power could be generated to support economic and commercial activities in the area. However, only when the local area over which the benefits are spread is large enough to include the places where

¹⁴ Source: Kayamandi beneficiary survey; n=726

¹⁵ Kayamandi Municipal and Contractors project specific questionnaires, 2010; n=29

¹⁶ Kayamandi Contractors project specific questionnaire, 2010; n=13

construction workers live and spend their money, as well as the places where the new home occupants are likely to work, shop, and go for recreation, then local impacts are maximised.

The average breakdown from contractors on expenditure per project is as follows¹⁷:

- ◆ Labour: 25%
- ◆ Building materials: 63%
- ◆ Other: 12%

As indicated previously, a total of R115.6 billion (at 2010 values) on low-cost housing construction has been invested since 1994. Based on the percentage of labour expenses, approximately R30 billion at 2010 prices has been spent on workers' wages since 1994. Approximately 63% of government expenditure on housing projects goes towards building materials – in other words, approximately R73 billion, at 2010 prices, has been spent on building materials for government's low-cost housing initiatives since 1994.

The municipalities revealed that on average 64%¹⁸ of labourers utilised on housing projects are unskilled and 36% are skilled. Whereas the average skill type¹⁹ of workforce as reported by contractors is:

- ◆ Unskilled: 70%
- ◆ Semi-skilled: 25%
- ◆ Skilled: 5%

It can thus be expected that more than two-thirds of labourers are unskilled, the majority of which are local labourers. Increased local employment associated with the development of housing delivery projects has also impacted positively on the regional and local economy. Increased employment is associated with increased income and consequently with increased buying power, thus raising the standard of living in the areas of the housing delivery projects. The spin-off effects associated with these local economic contributions – capital expenditure, increased salaries, etc – include decreased dependence on government social benefits, increased disposable income, ability to purchase additional goods, and improved standard of living. 'Standard of living' is a measure of economic welfare. It generally refers to the availability of scarce goods and services, usually measured by per capita income or per capita consumption, to satisfy wants rather than needs. Housing delivery improves the standard of living, which enhances economic conditions in terms of productivity or per capita real economic growth, increases income distribution and expands availability of local public services.

¹⁷ Kayamandi Contractors project specific survey; n=10

¹⁸ Kayamandi Municipal project specific survey, 2010; n=22

¹⁹ Kayamandi Contractors project specific survey, 2010; n=13

Increased local employment is associated with increased income and consequently with increased buying power in the area, thus leading to new business sales. In other words, over and above the money originally invested during the construction and operational phase of housing delivery, a large amount of revenue is generated because of the multiplier effect in the different sectors of the economy.

In short, housing developments have positive impacts on the local economy of surrounding local areas if greater local expenditure takes place. The local economy will be stimulated in the following ways:

- ◆ Increased financial spending necessary for construction of the housing development – these include the purchasing of building material, payment of services provided and infrastructure development
- ◆ Increased expenditure by employees from income generated
- ◆ Increase in land values from provision of bulk and line services
- ◆ Generational of municipal revenue
- ◆ Potentially reduced travel-to-work trips in terms of time and/or distance, reducing congestion and time delays
- ◆ Increased viability of urban facilities and support for business, including public transport

On average, contractors reported the following recent local expenditure patterns on building materials.²⁰

- ◆ Same local municipality: 76%
- ◆ Other local municipality in the same province: 14%
- ◆ Other province of South Africa: 10%
- ◆ Other country: 0%

However, in the main, contractors are known for maximising profits. This entails not necessarily purchasing locally, but to negotiate the best deals nationally. Due to price competition, enforcing local purchases is a challenge. However, some degree of local purchases needs to be enforced on contractors in order to ensure that as many of the positive benefits as possible accrue to the local area.

One of the unintended consequence, is that numerous small contractors have become bankrupt during the delivery of housing projects. By and large, those that have not been bankrupted indicated that they make hardly any profits from housing delivery projects. It seems that only the well-established contractors profit from large housing delivery projects where sufficient quantities of delivery and national purchases enable cost savings or where large contractors jointly provide professional services (town planning, engineering, etc) and construction.

²⁰ Kayamandi Contractors project specific survey; n=9

A positive economic impact is likely to be experienced in terms of the increased markets dealing with the sale of local goods to construction staff and direct local employment by construction contractors. The construction sector's role in the economy is important in the sense that growth in the local economy is dependent on the performance of other local economic activities, because of the strong backward linkages in the local economy. Some of the inputs required for construction include:

- ◆ Bricks
- ◆ Corrugated iron
- ◆ Pipes
- ◆ Electrical wiring
- ◆ Paint
- ◆ Concrete and cement

Nonetheless, construction of housing in itself generates substantial local economic activity, including new income and jobs for residents, and additional revenue for local governments, taking into consideration the effect of the construction activity itself, the ripple impact that occurs when income earned from construction activity is spent and recycled in the local economy, and the ongoing impact that results from new homes becoming occupied by residents who pay taxes and buy locally produced goods and services.

Although many changes have occurred in South Africa since 1994, poverty is still widespread and many households struggle to sustain themselves. Government housing delivery presents a critical opportunity to decrease poverty by supporting development of local economies.

3.1.2 Beneficiary affordability of housing

Beneficiary affordability of housing with regards to income generation, expenditure and general housing affordability provide an indication of how the delivery of government housing has assisted with poverty alleviation and wealth distribution.

Beneficiary livelihood and income generation ability

BNG regime human settlement plans aim to coordinate housing development in order to promote poverty alleviation and wealth distribution. With more than 2.37 million units delivered and households supported, government housing programmes sustain nearly 11 million people, which represents approximately 22% of the current population of the country. Housing delivery over the last sixteen years has created the opportunity for the creation of more than 2.37 million household assets for a portion of the population that previously was not able to obtain land ownership close to economic opportunities, and has given people who are living in totally unacceptable conditions access to decent municipal services. This might not distribute wealth directly, but it does lessen the

impact of poverty on people's lives. The income generation ability and associated impact at beneficiary and household level promotes economic wellbeing and structural transformation.

It is unrealistic to expect government housing delivery to provide beneficiaries with a house and a sustained job. Nonetheless, a total of 10% of beneficiaries revealed that without government housing assistance they would probably not have attained current household income. See table 3.1.

Table 3.1: The extent of housing assistance's contribution to income

Extent of contribution	Distribution
Obtained same income prior to moving to current dwelling	37%
Change in income unrelated to housing assistance	54%
Change in income fully related to housing assistance	10%
Total	100%

Source: Kayamandi Household Beneficiary survey, 2010; n=689

The degree of change in the income generation ability of household members since moving to their new dwelling is shown in table 3.2 below.

Table 3.2: Change in beneficiary income generation post-housing assistance

Degree of change	Percentage
Major decrease	4%
Some decrease	15%
Unchanged	65%
Some increase	12%
Major increase	4%
Total	100%

Source: Kayamandi Beneficiary survey, 2010; n=736

Household income for the majority (65%) of beneficiaries has remained constant. Whereas nearly 20% of households reported a decrease in their income-generation ability since government housing assistance, and approximately 16% of households reported a increase, hardly any difference in income-generation ability in the RDP and BNG regimes is noted from housing delivery.

The main reason for income generation mostly remaining unchanged is that, with or without housing assistance, priorities have not changed. Expenditure on items such as food and transport for beneficiaries is still the same.

The major reason for beneficiaries reporting a decrease in income-generation ability relate to higher expenditure on rates, taxes, services, rent, etc. Other reasons include:

- ◆ The new area is more expensive than the previous one, and more is spent on transport, which decreases monthly income.
- ◆ Maintenance costs are high and expenses in general have increased.
- ◆ Existing jobs have been lost since moving to the area.

- ◆ There is too much competition in the new area, and informal income generation has decreased.

One of the major reasons given by beneficiaries for an increase in income-generation ability relates to housing assistance providing them with space to run home-based businesses, which bring in considerable income and enable savings. Other reasons include:

- ◆ Better job/promotion with resultant higher income
- ◆ Closer to economic opportunities
- ◆ Lower travelling costs associated with new location
- ◆ Life being much easier and affordable

The extent to which moving to the current dwelling, post-housing assistance, has resulted in an increase/decrease in household income per item is shown in table 3.3 below.

Table 3.3: Change in beneficiary income post-housing assistance per source

Degree of change	Formal	Informal	Cash in kind from other family members	Total income
Decreased because of housing assistance	3%	3%	2%	3%
Unchanged except for inflation	58%	52%	48%	56%
Increased because of housing assistance	8%	6%	2%	7%
Not applicable	31%	39%	48%	34%
Total	100%	100%	100%	100%
n	707	693	686	640

Source: Kayamandi Beneficiary survey, 2010

The main income-generating activities for beneficiaries are child/pension social grants; spaza shops, shebeens and food stalls; domestic work; retail cashiers and clothing outlets. Other income-generating work includes:

- ◆ Building/trade/construction
- ◆ Farm work
- ◆ Factory work
- ◆ Municipal work, mainly cleaners
- ◆ Security guards
- ◆ Government departments
- ◆ Manufacturing sector
- ◆ Mining sector
- ◆ Gardening

The main income-earning activities of **social** housing residents, however, are quite different. The surveys revealed that social housing institutions accept only households with a formal income-earning household member. Social housing beneficiaries' income-earning work includes:

- ◆ Nurses
- ◆ Government clerks
- ◆ Security guards
- ◆ Teachers
- ◆ Motor industry employees
- ◆ Shop assistants
- ◆ Police service employees
- ◆ Social workers
- ◆ Banking/financial sector employees

One of the unintended consequences of giving housing assistance, however, is that government encourages dependency.

Housing expenditure and affordability

Besides change in beneficiary income and livelihood, albeit limited, the degree to which housing is affordable provides an indication of how housing assistance is achieving wealth distribution and poverty alleviation, and impacting on beneficiary households. The degree of change in household expenses since moving to the new dwelling is shown in table 3.4 below.

Table 3.4: Degree of change in household expenditure

Degree of change	Percentage
Major decrease	2%
Some decrease	15%
Unchanged	35%
Some increase	40%
Major increase	9%
Total	100%

Source: Kayamandi Beneficiary survey, 2010; n=728

Nearly half (48%) of beneficiaries revealed that expenditure has increased post-housing assistance; for approximately 35% of beneficiaries expenses have remained unchanged, and 17% have experienced decrease in expenditure.

The major reasons for decrease in expenses relate to beneficiaries now living apart from their extended family, with resultant lower expenditure. But some beneficiaries revealed that because of housing assistance the number of household members has increased, with resultant less income per dependent.

Major reasons for increase in expenses include:

- ◆ Higher expenditure on services and rental
- ◆ Greater household tasks, with ensuing greater expenses

- ◆ Higher costs of renovations and maintenance
- ◆ Electricity and technology-bound appliances such as computers require expenses such as data bundles for Internet activity
- ◆ Geyser and shower facilities result in higher water usage and related costs
- ◆ Change in lifestyle with resulting growth in needs and desires and increased furniture and appliance purchases
- ◆ Increase in transport costs
- ◆ Previously lived in rural areas or with parents with limited expenses

Beneficiaries were queried on the extent to which moving to their current dwelling (post-housing assistance) resulted in an increase/decrease in expenditure per item. See table 3.5.

Table 3.5: Change in expenditure (per item) post-housing assistance

Expenditure item	Degree of change	Percentage	n
Rent	Decreased because of housing assistance	27%	768
	Unchanged except for inflation	55%	
	Increased because of housing assistance	18%	
	Total	100%	
Debt repayments (eg car, furniture, etc)	Decreased because of housing assistance	8%	766
	Unchanged except for inflation	70%	
	Increased because of housing assistance	22%	
	Total	100%	
Water and lights (services)	Decreased because of housing assistance	10%	785
	Unchanged except for inflation	32%	
	Increased because of housing assistance	58%	
	Total	100%	
Household maintenance	Decreased because of housing assistance	8%	769
	Unchanged except for inflation	59%	
	Increased because of housing assistance	33%	
	Total	100%	
Transport costs (to work/school/events, etc)	Decreased because of housing assistance	17%	786
	Unchanged except for inflation	56%	
	Increased because of housing assistance	26%	
	Total	100%	
Healthcare	Decreased because of housing assistance	23%	780
	Unchanged except for inflation	60%	
	Increased because of housing assistance	17%	
	Total	100%	
Savings	Decreased because of housing assistance	21%	766
	Unchanged except for inflation	68%	
	Increased because of housing assistance	11%	
	Total	100%	
Total expenditure	Decreased because of housing assistance	11%	641
	Unchanged except for inflation	51%	
	Increased because of housing assistance	37%	
	Total	100%	

Source: Kayamandi Beneficiary survey, 2010

Expenditure broken down per expense item shows that for most households expenditure has remained unchanged, except for water and lights (services), which have increased for all beneficiary households.

Larger increases in expenditure than decreases have been observed for these household expense items:

- ◆ Debt repayments (eg car, furniture)
- ◆ Household maintenance
- ◆ Transport costs (to work/school/events, etc)
- ◆ Total expenditure

Larger decreases in expenditure than increases have been noted for these expense items:

- ◆ Rent
- ◆ Healthcare
- ◆ Savings

Reasons for decrease in expenditure include:

- ◆ Living conditions better than before
- ◆ Less maintenance of house required
- ◆ Previously paid for informal rental. Not paying rental makes it possible to save.
- ◆ Due to housing assistance, assistance was obtained with registering as an indigent. Being registered as an indigent makes all services-related expenses far cheaper. Some beneficiaries previously paid for electricity, whereas services are now obtained for free.
- ◆ Transport costs are lower because of being better located in relation to most places
- ◆ The improved hygienic area compared with the squatter camps result in lower health costs

Reasons for increase in expenditure include:

- ◆ Higher maintenance costs
- ◆ Not always being able to afford the services bills, in which case bills escalate
- ◆ Taxi fares and public transport to and from areas are higher
- ◆ Used to stay with parents now have expenses
- ◆ Due to housing assistance beneficiaries are now forced to pay for services unlike before
- ◆ Energy sources of previous dwelling such as candles and paraffin stove was cheaper than electricity costs
- ◆ Overall expenses of previous dwelling was far lower

Table 3.6 shows household items purchased as a direct result of moving the current dwelling, that is, post-housing assistance.

Table 3.6: Purchase of household items because of housing assistance

Item	Response	Percentage	n
Furniture	Yes	31%	792
	No, but purchased item unrelated to assistance	32%	
	No, did not purchase item	38%	
	Total	100%	
Television/dish	Yes	27%	791
	No, but purchased item unrelated to assistance	35%	
	No, did not purchase item	38%	
	Total	100%	
Refrigerator	Yes	25%	790
	No, but purchased item unrelated to assistance	33%	
	No, did not purchase item	42%	
	Total	100%	
Internet facilities at home	Yes	1%	786
	No, but purchased item unrelated to assistance	3%	
	No, did not purchase item	97%	
	Total	100%	
Post facilities	Yes	15%	787
	No, but purchased item unrelated to assistance	12%	
	No, did not purchase item	73%	
	Total	100%	
Telephone in the dwelling	Yes	2%	788
	No, but purchased item unrelated to assistance	2%	
	No, did not purchase item	96%	
	Total	100%	
Music systems	Yes	19%	788
	No, but purchased item unrelated to assistance	30%	
	No, did not purchase item	52%	
	Total	100%	
Electric kettles	Yes	28%	787
	No, but purchased item unrelated to assistance	30%	
	No, did not purchase item	42%	
	Total	100%	
Geyser	Yes	3%	786
	No, but purchased item unrelated to assistance	5%	
	No, did not purchase item	92%	
	Total	100%	
Electric two plate cookers/stove/oven	Yes	26%	791
	No, but purchased item unrelated to assistance	35%	
	No, did not purchase item	39%	
	Total	100%	
Electric irons	Yes	22%	790
	No, but purchased item unrelated to assistance	31%	
	No, did not purchase item	47%	
	Total	100%	
Heater	Yes	8%	791
	No, but purchased item unrelated to assistance	14%	
	No, did not purchase item	79%	
	Total	100%	
Computer	Yes	1%	790
	No, but purchased item unrelated to assistance	4%	
	No, did not purchase item	95%	
	Total	100%	

Item	Response	Percentage	n
Vacuum cleaner	Yes	1%	787
	No, but purchased item unrelated to assistance	2%	
	No, did not purchase item	97%	
	Total	100%	

Source: Kayamandi Beneficiary survey, 2010

Generally the following items have not been purchased as a direct result of housing assistance:

- ◆ Vacuum cleaners
- ◆ Computers
- ◆ Heaters
- ◆ Geysers
- ◆ Telephone in dwelling
- ◆ Internet facilities at home

Items that are purchased mostly as the direct result of housing assistance include:

- ◆ Electric irons, two plate cookers/stove/oven
- ◆ Electric kettles
- ◆ Music systems
- ◆ Post facilities
- ◆ Refrigerator
- ◆ Television/dish
- ◆ Furniture

Reasons for purchasing items because of housing assistance include:

- ◆ Enough space to own furniture, decorate and make the house more comfortable
- ◆ Desire for luxury items
- ◆ Competing with neighbours
- ◆ Electricity enables use of appliances
- ◆ Need for cleaning consumables
- ◆ Entertainment

Government housing has mostly created increased expenditure and increased purchases of household items. Nonetheless, government housing delivery has enabled people to become land owners, which allows some financial independence and 'bankability'. However, the quality of the asset has to be maintained and beneficiaries must accept ownership of these assets as well as realise the value of their asset, which boils down to the affordability of houses for beneficiaries.

More than half of beneficiaries reveal that the housing obtained is affordable; approximately 41% state that it is not affordable, although they are making ends meet, and only 1% of households are planning to sell the house, based on non-affordability. (See table 3.7.)

Table 3.7: General affordability of housing assistance

Degree of affordability of housing assistance	Percentage
Not affordable at all. Planning to sell house based on non-affordability	1%
Not affordable. Many unforeseen costs, but not planning to sell house. Making ends meet	42%
Affordable	57%
Total	100%

Source: Kayamandi Beneficiary survey, 2010; n=768

Any form of development contributes towards achieving wealth distribution and poverty alleviation. The pace of transformation is slow, but progress is being made through housing delivery, even though not optimally. There are still large backlogs and the process of alleviating poverty can be addressed in a more effective manner. While wealth distribution and poverty alleviation have taken place at some level, the focus is still largely on chasing numbers with faster delivery at higher capacities. One sector, namely housing, cannot realistically be expected to energise all aspects of development. Nonetheless, the Department of Human Settlements is the only department fighting poverty because it is the only initiative that distributes an asset that can allow the poor to escape poverty with the possibility of household savings and gradual capital formation.

3.2 Employment creation

There is a strong link between government housing delivery and employment creation which brings increased income and wages to communities. The impact of job creation and the degree of leveraging growth in the economy by utilising the provision of housing as a major job creation strategy (in terms of components such as employment in man-months, employment per sector, employment of special groups, labour intensiveness and on-site materials construction, quality of employment created, etc) provide an indication of how the delivery of government housing has assisted with job creation. It also ensures that labour-intensive construction methods and principles permeate through housing delivery programmes, increasing the job creation potential and contributing to unemployment reduction in the country.

This sub-section reports on the achievement of the Department's intended outcome of leveraging growth in the economy by utilising the provision of housing as major job creation strategy and refers to:

- ◆ Measuring job creation
- ◆ Labour intensiveness
- ◆ Training and skills development
- ◆ SMME and B-BBEE involvement

3.2.1 Measuring job creation

The Thubelisha Presidential Study indicated that an average of 2.3 persons are employed per house of 40 m², although it does not refer to the length of time the employed people are involved in the construction. The survey results show that the average employment in man-months per housing unit completed over the last sixteen years is approximately 3.1.²¹ In other words, a government housing project takes one person approximately 3.1 months to complete. The duration of direct employment per housing unit is thus limited. However, since the programme has been running over the last sixteen years (and will continue well into the future), a form of 'sustained' temporary direct employment creation has been achieved.

Over the last sixteen years, delivery of government housing has created 1,286,771 man-year during the actual construction of housing and 10,802 man-year jobs during operation. Sectors stimulated are highlighted in the previous section.

Increased employment during construction, albeit temporary, results in greater expenditure, which means that because of the economic spin-offs, more jobs will be created than merely the direct jobs required for the construction. During the construction phase, there is demand for contractors, labourers, artisans, and service providers.

The creation of employment is important from a number of economic perspectives, such as improved income distribution and household welfare; a sustainable growth path with a growing productive sector to support less productive parts of the economy (via intra-household transfers, monetary transfers and consumption linkages); and longer upswings in the business cycle, with household demand being the single most important contributor.

There are other socio-economic considerations from employment such as wellbeing, good health, and the feeling of making a contribution to the family and the broader community/society.

In the main, although a large part of the labour force in the country are involved in very low or zero productive activities, and a shift from formal to informal employment is being noted, concomitant with growth in output from housing delivery projects is active stimulation of labour-absorption, with higher rates of labour-intensive employment (and income derived from employment). This enables returns to education, lower household dependency ratios, stronger distribution of income effects, increased opportunities in the marketplace, and deepening economic linkages, thereby assisting with the sustainable employment growth trajectory of the country.

Generally, for the most part, by and large the employment impact is much greater than merely the direct employment generated from government expenditure on housing subsidy, as a result of the

²¹ Kayamandi Contractors project specific survey, 2010; n=11

second-round multiplier effects that are generated. Government housing programmes over the last sixteen years have achieved this by stimulating demand among the poor. That is, government housing programmes aid in transferring the composition of demand towards greater labour-absorbing sectors of the economy through enabling increased consumption by the poor (because of higher income derived from employment), which increases demand for basic labour-intensive domestic consumables and produce, with the resultant absorption of a greater proportion of labour in the production of the consumables, compared with goods consumed by the wealthy. In this way, the stimulus of increased demand promotes second-round labour demand multipliers. Based on this, it is reasonable to say that the implementation of government housing programmes has a positive and somewhat sustainable impact on South Africa's macro economy and employment growth path.

While housing delivery programmes utilise public sector budgets to reduce and assist with alleviating unemployment, they cannot ensure that all participants in these programmes are able to translate the experience and set up their own business/ service or become sustainably employed.

'Temporary' direct employment created through housing delivery does not generate jobs that would have happened without the intervention anyway. That is, government housing programmes do not create a so-called deadweight loss to society. Nor do they lead to substitution effects. In other words, new jobs are created so participants in housing delivery programmes do not get jobs that would have gone to other people. Furthermore, housing delivery stimulates business sales, and does not create a 'displacement effect'. This refers to the situation in which the programme's consequence is to displace non-participants through creating market distortions, which then lead to the closure of other enterprises in the same industry and consequently job losses.

Not all provincial departments agree that employment potential is a criterion when assessing project applications. Employment potential generally goes hand in hand with good location, and projects must be located close to employment opportunities or within reasonable access through transportation. Comments from provincial departments about employment potential:

- ◆ Projects are planned to provide job opportunities for beneficiaries only during construction because projects are labour intensive.
- ◆ Housing projects are placed next to economic activities and all that is left is for beneficiaries to access jobs.
- ◆ Employment potential is not a major criterion, because a housing project creates temporary jobs.
- ◆ Employment potential is implied. The BNG policy looks at this aspect, and an integrated approach is followed. All new BNG projects are evaluated on jobs created, skills developed, etc.
- ◆ Employment is only a partial consideration. The first focus is to provide housing; employment

comes as a result and is considered a bonus. Employment potential may be looked at more intensely in the future.

- ◆ Employment potential forms part of planning assessment, but a point is reached at which the severity of people's living conditions exceeds other criteria.

The quality of employment that is created because of the limited duration of the work is questioned, as well as the notion that government housing sustains low-wage workers. These cast doubt on the degree of meaningful participation of the poor in the mainstream economy through housing delivery. Because of the large amount of backlogs, and the questionability of sustained housing delivery, the programme is believed to be constrained in continuously creating more jobs in the long term.

Housing delivery has assisted some beneficiary households with sustainable job creation. Table 3.8 shows beneficiaries' response to whether housing assistance improved the work status of household members.

Table 3.8: Improvement of work status from housing assistance

Assistance components	Degree of change	Percentage	n
New location of housing assistance	Improved	20%	731
	Stayed the same	69%	
	Worsened	11%	
	Total	100%	
New housing unit of housing assistance	Improved	12%	720
	Stayed the same	82%	
	Worsened	5%	
	Total	100%	
New social community of housing assistance	Improved	14%	711
	Stayed the same	80%	
	Worsened	6%	
	Total	100%	

Source: Kayamandi beneficiary survey, 2010

In general, beneficiaries reported their work status as remaining the same after housing assistance. However, the new location (because of closer proximity to employment opportunities) had a greater impact on improving work status than the new social community or the new housing unit itself. These responses reveal that change in work status is not unrelated to housing assistance, and more beneficiaries experienced an improvement in work status than those that reported their work status as worsening. The provision of adequate housing alone cannot be expected to change the work status of all households because many other factors play key roles, such as health, education, and the desire to obtain work.

The main reason reported by beneficiaries for improving employment is that they are located closer to proper job opportunities. Beneficiaries revealed these reasons for housing assistance enabling employment improvement:

- ◆ Work has been obtained within the settlement, such as cleaning streets, fixing roads/infrastructure.
- ◆ The improved location helps the employed to have more money available for savings.
- ◆ There are numerous unskilled labour jobs nearby.
- ◆ There is a large population base in a housing settlement, which provides opportunities for business, especially for households wanting to purchase inexpensive necessities

The main reasons that were given for housing assistance worsening employment was that there are no economic opportunities nearby; travelling to seek work is too expensive; competition for employment is high; bribery and nepotism are involved in certain jobs, and education, skills or experience are inadequate. Other reasons include:

- ◆ Promises of work from municipalities that did not materialise
- ◆ Lack of creativity and self-employment in the youth
- ◆ Lack of jobs for unskilled/uneducated people because of competition from people with same skills and resultant willingness to work for lower wages. Foreigners are also favoured for work opportunities because they are willing to work more cheaply
- ◆ Lack of work experience
- ◆ Lack of centres for short courses, for example computer training
- ◆ High HIV/Aids rates and drug problems among the youth
- ◆ Lack of access to ID booklets, which inhibits ability to find employment
- ◆ Lack of luck in finding employment
- ◆ Low purchasing power in area for home-based businesses

Besides direct employment (and multipliers) from construction-related job creation, market flexibility changes the mobility of households and hence the flexibility of labour markets. There is apparently a clear link between housing and unemployment, and more specifically between housing and labour market flexibility and unemployment. There is substantial evidence of positive correlations between home ownership and unemployment (Oswald, 1996; Nickell, 1998; and Dohmen, 2005).

One of the negative unintended consequences of housing delivery is the impact on labour mobility. Dohmen (2005) states that the key issue is not housing, but tenure, which links to labour mobility and unemployment. According to Dohmen, higher aggregate rates of home ownership are associated with higher unemployment rates, although unemployment might not be concentrated among homeowners. The reasoning is that high-skilled workers are more mobile than low-skilled workers, given the choice of housing tenure. Increased aggregate home-ownership rates are

associated with reduced search intensity, diminished attractiveness of job offers, and greater unemployment. Dohmen's key conclusion is that mobility and search behaviour are determined to some degree by conditions in the housing market. In other words, interventions in the housing market affect labour market outcomes. Dohmen's findings imply that policies that raise moving costs (eg homeownership) reduce mobility and thereby increase unemployment.

Access to housing is not a key component of improved economic self-sufficiency. Other interventions have a greater impact, such as specific employment and economic development programmes. These are complementary to housing interventions.

The SHF (2009) considers whether **social** housing improves household mobility. Key measures to value market flexibility are reduced periods of unemployment, lower search times, higher levels of upward job mobility, and overall lower levels of unemployment. Study findings indicate that social housing residents generally have access to better jobs because of their location. Thus location (proximity to employment) and larger potential pools of employment are important. In addition, reduced travelling time and costs are strongly correlated with better employment outcomes for these households. However, the SHF (2009) indicates that the analysis is complicated by selection bias in that tenants are typically employed prior to moving in; and by the regulatory limitation that applies to other low-income housing, which restricts the sale. The consequence in most cases is continued utilisation of informal settlements.

The SHF (2009) also provides causality of employment for housing. Accordingly, the link between urban restructuring and better employment opportunities is operationalised through locating housing projects near employment opportunities. This leads to residents finding better jobs when moving to the area, and therefore additional income and higher productivity.

3.2.2 Labour intensiveness

The municipalities that were interviewed revealed that on average 64%²² of labourers utilised on housing projects are unskilled and 36% are skilled. The average skill type²³ of workforce as reported by contractors is:

- ◆ Unskilled: 70%
- ◆ Semi-skilled: 25%
- ◆ Skilled: 5%

The average daily income provided to the workforce²⁴ for housing delivery amounts to an average of R135 per day.

²² Kayamandi Municipal project specific survey, 2010; n=22

²³ Kayamandi Contractors project specific survey, 2010; n=13

²⁴ Kayamandi Contractors project specific survey, 2010; n=8

All housing delivery projects are labour intensive because of the nature of projects. However, these aspects were noted from municipal and contractors' interviews regarding labour intensity:

- ◇ Construction work is mostly labour based, excluding the production of building materials.
- ◇ Only approximately 23%²⁵ of projects reported that material inputs, such as bricks, were developed on site.
- ◇ Brickwork, plastering, tiling, and paving are all done by labour-only contractors.
- ◇ Electrical, plumbing, painting, and roofing are mostly done by supply-and-install contractors.
- ◇ Concrete mixers are mostly utilised for foundations.
- ◇ On average 54%²⁶ of the projects utilise intensive construction machinery.

Interviews with contractors revealed that sweat equity, as in **PHP** projects, does not work, and beneficiaries should be paid per skill level and per unit completed. PHP projects are successful only when beneficiaries learn how to take initiative.

All provincial departments stated that labour intensiveness in housing delivery is compulsory in the BNG regime. Most provinces disclosed that housing delivery projects are approved in line with EPWP principles, but they are not actually implemented according to EPWP.

The EPWP is one of government arrays of programmes aimed at providing poverty and income relief through temporary work for the unemployed to carry out socially useful activities. The EPWP was launched in April 2004 to promote economic growth and create sustainable development. The EPWP involves creating temporary work opportunities for the unemployed, using public sector expenditure. It builds on existing best-practice government infrastructure and social programmes either by deepening their labour absorption or extending them. Given that most of the unemployed are unskilled, the emphasis is on relatively unskilled work opportunities. All of the work opportunities generated by the EPWP are therefore combined with training, education or skills development, with the aim of increasing the ability of people to earn an income once they leave the programme. Together with the SETA's, the Department of Labour (DOL) coordinates the training and skills development aspects of the programme. The programme has set criteria and target of providing employment opportunities and training.

In the case of government housing projects, labour intensity is dependent on the capacity of the contractors (some have heavy machinery, others not). In many cases the work is mostly labour intensive. The onus in most projects seem to be on the contractor, who must report on the labour-intensive methods being implemented for that project, with the result that limited reporting on labour intensiveness methods is undertaken. Whereas with EPWP projects reporting and meeting set criteria is enforced on contractors.

²⁵ Kayamandi Contractors project specific survey, 2010; n=13

²⁶ Kayamandi Contractors project specific survey, 2010; n=13

In order to maximise labour intensiveness, the relevant Social Responsibility Programme criteria of EPWP are as:

- ◆ A minimum of 35% of the Project budget must be utilised for labour intensive wages
- ◆ A maximum of 3% of the project budget shall be used for other wages
- ◆ A maximum of 7% of the project budget shall be utilised for implementers fee
- ◆ A maximum of 3% of the project budget shall be utilised for administration costs
- ◆ 90% of temporary job days must be reserved for local people

One of the problems, acknowledged by Public Works, is that labour-intensive projects cost more than conventional projects, and require more management capacity. Grants by the Department of Public Works for labour-intensive methods have high thresholds, involve a large number of man-days, and are reputedly difficult to manage and implement in housing delivery projects.

However the trade-off to society from EPWP is necessary. The interventions from Public Works have been designed to make a significant contribution to reducing unemployment and providing livelihoods for the poor, women and the youth in order to bridge the gap between the first and the second economies of this country. The Department of Human Settlements should thus implore implementers to do everything possible to maximise the job opportunities created in a project so as to make a meaningful contribution to the governments fight against unemployment.

3.2.3 Training and skills development

Housing delivery programmes draw significant numbers of the unemployed into productive work. The skills workers obtain increase their capacity to earn an income. The effects of income and job creation also translate to skills development, which, if meaningful (type and duration), can assist with meaningful improvement of unemployment.

According to most provincial departments of human settlements, transfer of skills and skills development are compulsory in the delivery of housing projects. Some departments, however, do not agree. In housing delivery, skills transfer is not always treated as being compulsory, but often a 'gentlemen's agreement' with contractors is adhered to. In some cases, the EPWP programme is reportedly followed for training people who are then appointed to work on housing programmes. In more recent projects in some provinces a contractor's template has been set up, which is used to assist with monitoring. Limited formal training and skills development have been observed and much of skills development is limited to on-the-job training. Key aspects of skills development are:

- ◆ Skills are transferred mainly through in-service training, for example brick laying, and carpentry.
- ◆ Skills can be 'sold' after completion of a project, which can assist with obtaining employment elsewhere, job creation and poverty alleviation. On the flip side, a skilled workforce for housing

delivery is not retained, as trained people mostly find better jobs that pay more, resulting in the need for continuous training.

- ◆ Training is costly. The enforcement of additional 'conditions' such as skills development requires increased monitoring, which is difficult, costly and already weak. Contractors will be less willing to engage in housing projects owing to numerous criteria and rules to adhere to.
- ◆ Turnkey developers in the BNG regime reportedly mostly strive to abide by EPWP rules, through which skills development statistics are assessed and monitored, thus ensuring that women and the youth are involved.
- ◆ In some projects, a steering committee of leaders, concerned people and the ward councillor is appointed, among others, to ensure skills development takes place.
- ◆ Training selection is problematic. Unemployed people and friends of councillors are put forward for training, rather than someone who is already employed or who shows technical ability or entrepreneurial spirit.
- ◆ Beneficiary empowerment and skills development vary widely per project, but mostly take place formally on a small scale, as they are difficult to implement.

Municipalities in general reveal that the EPWP needs to be promoted as much as possible, because the municipality lacks instruments, methods or initiatives in place to test whether skills transfer takes place and the intended employees are trained. In some provinces, a specialist is on site to monitor the process in order to ensure quality product and engineering specifications, etc. However, there are no specifications on the target, or procurement policies to guide officials with use of local labour, use of local materials, degree of skills training, etc.

Take for instance that upon budget approval from the EPWP, the Social Responsibility Programme management deducts 5% of the total project budget for purposes of undertaking accredited training and this is administered separately through a process of engaging accredited training providers. The project implementers are also enforced to use a further 2% of the remaining budget for non-accredited training, and training person days must be equal to 9% of temporary person days.

Generally, in both the RDP and the BNG regimes, contractors bring a core of skilled workers who train local labourers on the job. Skills training is thus mostly limited to in-service training during the project, on components such as bricklaying, carpentry, and scaffolding. Limited exceptions were observed in projects, where these training components were noted:

- ◆ SMME training
- ◆ Sub-contractor training for managers and supervisors covering technical, quality, supervision, punctuality and time management
- ◆ Beneficiary training

Some training and investment creating entities were noted in the projects. See photographs 3.1.

Photographs 3.1: Job creation and training entities



There is scope for improved skills development, labour intensity and more on-the-job materials production. Nonetheless, the delivery of housing projects over the last sixteen years has assisted with achieving the three main objectives of EPWP:

- ◆ **Ability to earn an income:** Government housing programmes have enhanced the ability of workers to earn an income through the labour market or through opening up opportunities for entrepreneurial home-based activities.
- ◆ **Work experience:** Those employed directly and indirectly with housing delivery projects obtain valuable work experience, which enables them to search for similar work elsewhere in the economy.
- ◆ **Training and skills development:** Those employed through housing delivery have mostly obtained on-the-job training and in some cases skills development programmes are being implemented.

3.2.4 SMME and B-BBEE involvement

Expenditure on housing delivery contributes to employment creation, the effects of which translate directly to SMMEs and/or emerging contractors, B-BBEE companies, and special groups.

The degree of SMME and B-BBEE support has differed over the past sixteen years. Enforcement of SMMEs and B-BBEE companies is reported at provincial department level to have been put into effect in various years and even various regions within a province have reported implementation to have taken place in different years. Utilisation of SMMEs and B-BBEE was reportedly enforced between 1999 and 2006.

According to the provincial departments, prior to SMMEs being enforced, between 5% and 10% of provincial projects were allocated to SMMEs. Post-enforcement of SMMEs, provincial departments reveal that between 20% and 90% of projects are allocated to SMMEs, with the lowest percentage being noted in lower populated provinces, based on limited availability of locally experienced SMMEs. This signals a significant contribution to local-level economic transformation. According to the provincial departments, before B-BBEE was enforced, 10% of provincial projects were allocated to B-BBEE companies. Post-B-BBEE enforcement, a range of 70% to 80% of projects are allocated to B-BBEE companies. SMME and B-BBEE empowerment companies are therefore gaining substantially from the impacts of government housing programmes, which assist with wealth distribution and empowerment of those for whom it is intended.

Scope for greater empowerment of SMME and B-BBEE companies however exists. In order to maximise the number of job opportunities that any project should create, the Social Responsibility Programme criteria of EPWP reveals that 50% of SMMEs used must represent enterprises with at least 70% of equity owned by HDIs. Through applying EPWP or similar procurement criteria in housing delivery, greater stimulation of the emergence of black-owned construction companies in a sector that is still largely white owned can be put into practice. This should enable making a more meaningful contribution to transformation of the South African economy.

Furthermore, the projects reveal these average percentages of employment of special groups, in recent projects, as noted from municipal and contractors' responses:

- ◆ Women: 18%²⁷
- ◆ Youth: 28%²⁸
- ◆ Disabled: 1%²⁹

²⁷ Kayamandi Contractors and Municipal project specific survey, 2010; n=15

²⁸ Kayamandi Contractors and Municipal project specific survey, 2010; n=16

²⁹ Kayamandi Contractors and Municipal project specific survey, 2010; n=14

For comparison, in the presidential study Thubelisha Homes revealed that 24% of their workers are women, and 5% of their houses are built by female contractors.

Government housing thus targets special groups, but in comparison with EPWP criteria, scope for greater use of special groups exists. EPWP criteria requires that 40% of temporary job days must be reserved for women, 30% for youth (ages 16 to 35 years) and 3% for persons with disabilities.

In short, high unemployment rates are prevalent in the country. The direct and indirect employment opportunities created from delivery of government housing programmes and those that arise from new business sales bring much-needed relief to the high unemployment figures in the country. Housing delivery, however, is not expected to solve unemployment in the country, although it will go some way towards easing the unemployment situation. Furthermore, reduction in unemployment rates has a direct impact on social challenges such as poverty alleviation. Scope for maximising job creation and greater labour intensiveness exists.

3.3 Breaking barriers in the residential property market

With the development of BNG, the Department aims to stimulate the sustainable and efficient functioning of the housing market at the lower end, so that the dual economy that pervades the housing sector is overcome and it becomes part of the broader housing market that is accessible to all South Africans.

The Department's approach in terms of stimulating the housing market involves enhancing access to title, removing barriers to housing trade, improving market information, enhancing access to housing finance, and supporting efficiency of the entire housing delivery chain and its components.

This sub-section reports on the achievement of the Department's intended outcome of breaking the barriers between the formal economy residential boom and the second economy slump and refers to:

- ◆ Land ownership and use of house as an asset
- ◆ Infrastructure, services and amenities improvement
- ◆ Functioning of the residential property market

3.3.1 Land ownership and use of house as an asset

Components such as access to title, use of living quarters for income generation, and expansions, additions and renovations of government housing assist in determining the economic impact that delivery and expenditure of government housing has had on land ownership and the use of housing as an asset for wealth creation.

Access to title

The historical context of housing in South Africa was characterised by housing policies that were racially imbalanced. The majority of citizens were not adequately housed, and lacked security of tenure, and the country lacked a well-functioning housing market. Only since the 1980s have black South Africans been allowed to own land in urban areas of South Africa. According to the Department of Public Works, Property Sector Transformation Charter (2006, 2):

Despite significant progress since the establishment of a democratic government in 1994, South African society, including the property sector, remains characterised by racially based income and social services inequalities. This is not only unjust but inhibits South Africa's ability to achieve its full economic potential. Property ownership and the complex system that has evolved around it is the foundation of wealth creation in the world today.

Many South Africans still do not have security of tenure, and hence no physical capital to use as a resource, or a sense of security. Security of tenure is one of the most important components of adequate housing. Housing delivery has assisted with improving land ownership and security of tenure, although advances still need to be made.

Over the last decade, shifts in land ownership patterns and the structure of the apartheid city have been observed. According to Urban LandMark (2007c), the number of households owning their own property increased significantly from 3,9 million households in 1995 to 5,62 million households in 2002. The latest community survey results show that in 2007 a total of 7.7 million households owned their own properties. This increased ownership tendency, as pointed out by Urban LandMark (2007c), is largely because of the roll-out of the National Housing Subsidy programme.

However, the pace of delivery since 1994 has not been sufficient. According to Urban LandMark (2007c), between 1995 and 2002, households resident in informal settlements increased by 123%, largely because the pace of urbanisation outstripped formal housing delivery.

With more than 2.37 million units delivered (and households supported) since 1994 on which many rely as their only investment, housing delivery over the last sixteen years has created the opportunity to generate more than 2.37 million household assets.

However, slightly less than half of government beneficiaries surveyed still have no proof of ownership. Table 3.9 provides an indication of change in access to title.

Proof of title is critical to beneficiaries. Some beneficiaries reportedly broke down their government house, because they only wanted the site, services and access to title so that they could build the house that they wanted.

Table 3.9: Access to title

Component	Response	Previous dwelling	n	Current dwelling	n
Tenure status of household	Owned and fully paid off	27%	699	51%	794
	Owned but not yet fully paid off	2%		10%	
	Rented	21%		10%	
	Occupied rent-free	49%		30%	
	Total	100%		100%	
If owned, even if not fully paid off, how did you obtain the property	Purchased	21%	428	4%	729
	Inherited	10%		3%	
	Given free of charge	45%		3%	
	Government assistance	20%		90%	
	Lived with family/friends previously	4%		0%	
	Total	100%		100%	
Proof of ownership	None	80%	515	44%	710
	Title Deed	15%		44%	
	Letter of agreement	3%		6%	
	Certificate of title	2%		5%	
	Total	100%		100%	

Source: Kayamandi beneficiary survey, 2010

There are numerous reasons for the large amount of government housing beneficiaries not yet receiving title, such as delays in processing titles, restriction of sale, death of beneficiary, and informal sale of properties. Apparently, the title deeds are still often registered in the name of the municipality or the provincial government. The non-transfer of homes and land to beneficiaries has an extremely negative economic impact on the community.

Nonetheless, for beneficiaries, becoming a land and/or house owner for the first time is relevant in terms of contributing to urban economies by securing a potentially tradeable asset. Those beneficiaries that have obtained access to title have gained physical capital, obtained a sense of security, accessed improved social and informal networks for employment, and can use the house as a resource.

Expansions, additions, and renovations of government housing

According to Rust (2004), valuing the stock of housing delivered through government housing programmes is difficult. Some stock is relatively well located in terms of access to economic opportunities, while some is poorly located. Nonetheless, Rust reveals that where subsidy houses have been well-located, even if of poor quality, if families incrementally upgrade the perceived value is probably high, vice versa.

The use of housing as an asset with perceived beneficiary value can also be viewed in terms of the amount of additional household structures, improvements and extensions undertaken by beneficiaries. See table 3.10 below.

Table 3.10: Average additional household structures/ improvements/ extensions

Structures/improvements/extensions	Previous dwelling	Current dwelling
Permanent formal second dwelling (non-moveable)	11%	25%
Temporary informal second dwelling (moveable eg shack)	19%	36%
Storage containers/shed	1%	2%
Vegetable garden	5%	7%
n	798	798

Source: Kayamandi beneficiary survey, 2010

On average, every fourth household adds on, improves or renovates an additional permanent formal second dwelling, and approximately every third household an additional temporary informal second dwelling.

On average, a once-off additional contribution for expansions and additions per unit amounts to R 1 076 per household. During construction, **PHP** projects are noted for contributing more, since the owners are directly involved with the construction process, and are able to make additions during construction. **Social** housing beneficiaries contribute less as they are not the owners. Ongoing operational maintenance and renovations amount to an average of R180 per household per annum. Although these investments per household may seem small, they promote local-level construction in areas such as tiling, roofs, plumbing, as noted from the renovations and extensions listed below, thereby stimulating local economies and the informal construction sector:

- ◆ Tiling floors
- ◆ Fixing roof, windows, doorframes
- ◆ Minor repairs
- ◆ Fixed leaking pipes, toilets and plumbing
- ◆ Burglar proofing or installing a gate
- ◆ Adding a geyser
- ◆ Building a shower/bathtub/sink
- ◆ Fencing the property
- ◆ Adding ceilings
- ◆ Inserting air bricks to improve ventilation
- ◆ Adding kitchen/bedroom cupboards
- ◆ Installing water supply and/or electricity box into the dwelling unit
- ◆ Adding on a garage
- ◆ Extending with a room/s and/or a front veranda/patio
- ◆ Inserting room dividers
- ◆ Paving outside the house
- ◆ Enlarging the kitchen
- ◆ Extended electric wiring throughout the house
- ◆ Plastering and repainting and improving the appearance

These renovations/expansions are mostly self-funded. See table 3.11.

Table 3.11: Financing for renovations/extensions

Financing	Percentage
Self-funded	93%
Family/friends	4%
Financial institutions	3%
Total	100%
n	327

Source: Kayamandi beneficiary survey, 2010

Use of living quarters for income generation

Government housing also affords beneficiaries the opportunity to generate income from their houses, the extent of which enables valuing the asset worth generated.

The use of living quarters for home-based income-earning activities was observed frequently in the housing projects, even though it is discouraged by public officials. Some have small businesses such as selling necessity items on occasion (using the front of the house for this activity). Some beneficiaries live in one room and hire out the rest of the house for a complete business activity. Others have completely altered their subsidy house into fully functioning businesses and no longer utilise the house as a residence. Some even build an extra structure/container next to the road or their house from which they operate their business.

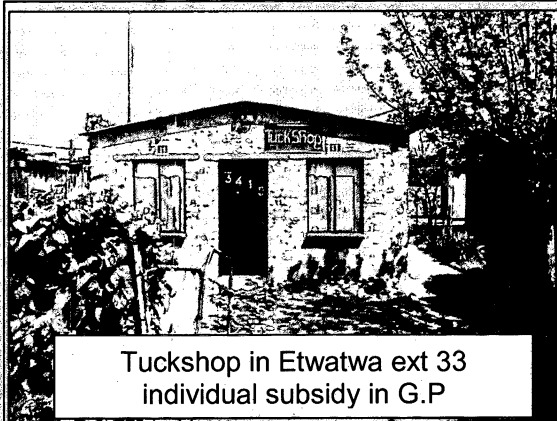
Types of home-based industries observed from field visits to housing projects include:

- ◆ Spaza shops
- ◆ Hairdressers
- ◆ Shebeens
- ◆ Shoe repairs
- ◆ Small retailers
- ◆ Telkom phones and cellular airtime
- ◆ Houses converted to crèches or day-care
- ◆ Mechanic shop and panel beaters for car repairs
- ◆ Medical practitioners

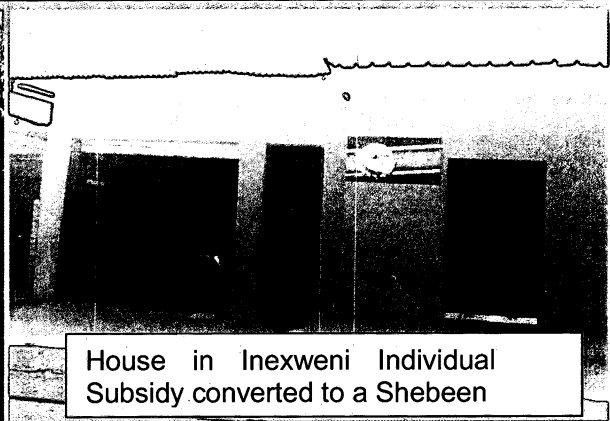
These home-based industries are owned mostly by the head of the household and the youth are rarely involved in home-based earning activities.

Examples of houses or part of houses used for or converted to businesses/activities are shown in the photographs 3.2 below.

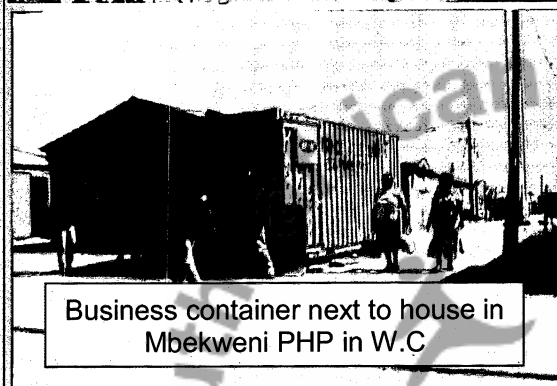
Photographs 3.2: Use of living quarters for home-based income earning



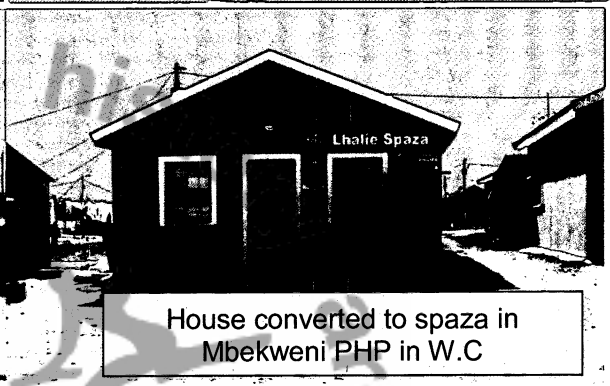
Tuckshop in Etwatwa ext 33 individual subsidy in G.P



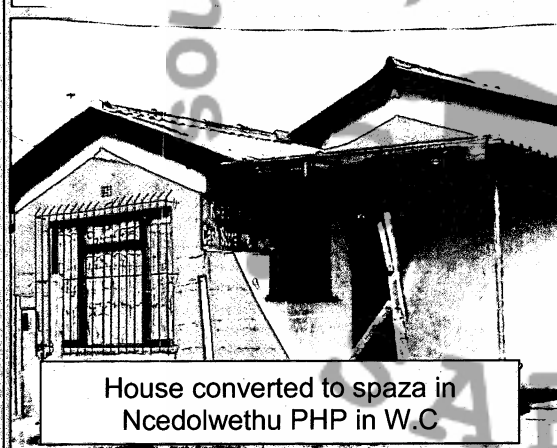
House in Inxweni Individual Subsidy converted to a Shebeen



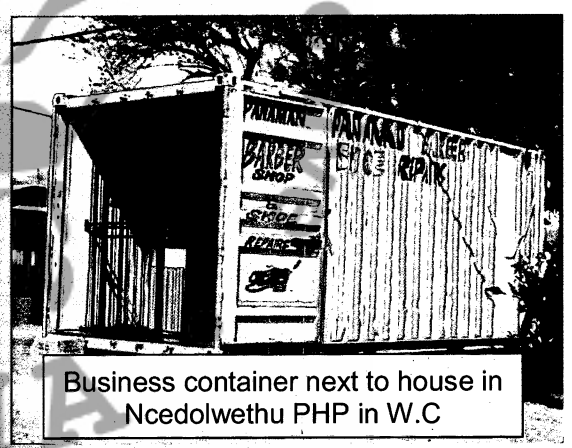
Business container next to house in Mbekweni PHP in W.C



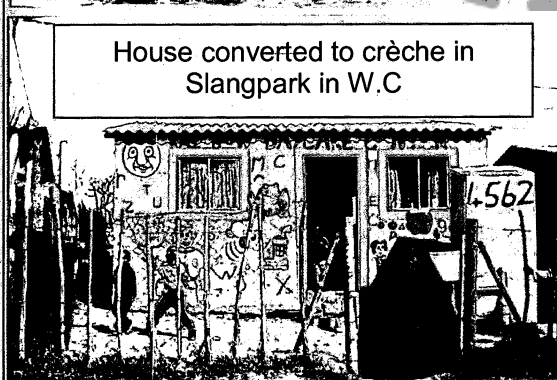
House converted to spaza in Mbekweni PHP in W.C



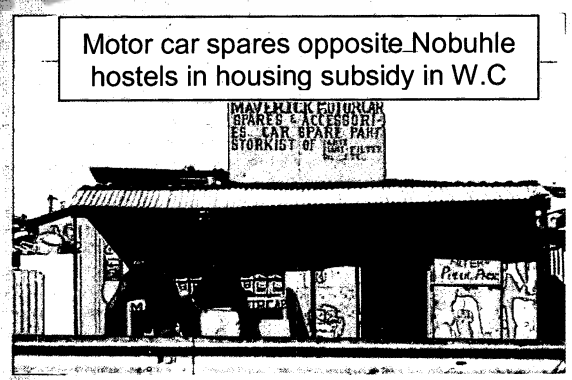
House converted to spaza in Ncedolwethu PHP in W.C



Business container next to house in Ncedolwethu PHP in W.C



House converted to crèche in Slangpark in W.C



Motor car spares opposite Nobuhle hostels in housing subsidy in W.C



From research conducted by the SHF (2009) it is apparent that the differences in economic development effects between **social housing** and other housing are primarily a function of household income, rather than housing form and location. The SHF (2009) also indicates that social housing at scale and accompanied by a range of other urban interventions can support increased local economic activity, although evidence currently supports the view that social rental housing is likely to be detrimental to economic opportunities for poor households and could well undermine economic development initiatives. This is because in **social** housing projects, home-based income-earning activities are not allowed in lease agreements, although some residents work as consultants from home for companies such as Avon (beauty industry) or Tupperware, and sell products from their rental units.

According to Shisaka, in association with CSIR Built Environment (2006), one of the key economic inhibitors for home-based entrepreneurs is lack of appropriately tailored financial products. Should there be demand for the type of activity envisaged, increased access to capital could enable greater utilisation of government housing for home-based income-earning activities.

Some families in informal areas already have secure livelihoods because they have space to run home-based enterprises. Some perceive this to change when beneficiaries move into formal housing developments. However, post-housing assistance, use of dwellings for home-based income-earning activities has increased substantially (see table 3.12).

Table 3.12: Use of dwellings for home-based income-earning activities

Response	Previous dwelling	Current dwelling
Dwelling used for home-based income	7%	17%
Dwelling not used for home-based income	93%	83%
Total	100%	100%
n	737	755

Source: Kayamandi Beneficiary survey, 2010

Furthermore, more than 60% of the beneficiaries desire to have a home-based business in the future. Increased optimism in and motivation of the unemployed to seek employment or engage in income-earning activity through seeing good examples of other people is thus noted. There is also the possibility of increased sharing of information about employment opportunities, which can lead to higher employment rates (SHF, 2009).

Income from government housing is also generated through rentals. The scale of renting out living quarters, part of the house or an outbuilding, or sub-letting a room in the house has increased significantly post-housing assistance. See table 3.13. No difference in the degree of renting out units is noted between the RDP and BNG regimes.

Table 3.13: Renting out of living quarters or part of it

Response	Previous dwelling	Current dwelling
Living quarters or part rented out	3%	13%
Living quarters or part not rented out	97%	87%
Total	100%	100%
n	686	775

Source: Kayamandi Beneficiary survey, 2010

Beneficiaries revealed these responses to renting out living quarters:

- ◆ The main form of business income in housing projects is renting out a shack in the backyard or the entire government house.
- ◆ Besides renting out living quarters, some beneficiaries connect electricity illegally to adjacent informal housing areas and obtain income in return.

Local municipalities are aware of house rentals in approximately 70%³⁰ of housing project areas, with little difference noted per type. Their reported percentage of houses per project with complete or part house rentals is 14%,³¹ with little difference per type. Since BNG regime projects are still relatively new there is municipal knowledge of house rentals in only approximately half of the BNG regime projects. Approximately 36%³² of the beneficiaries are aware of households that are renting out their complete house or part of it.

A myriad institutional and other interventions are important factors in economic development interventions in poor depressed areas. Economic development interventions in housing subsidy projects require significant additional public investment, and cannot be generated by housing alone. Government housing, however, can serve as a catalyst to economic development. Evidence from the surveys shows that housing plays a key role in providing income opportunities and supporting informal economic activities in poor communities. Government housing affords an opportunity to accommodate a variety of home-based businesses and to create rental accommodation, which is important, given the unemployment and poverty of many beneficiaries.

3.3.2 Infrastructure, services and amenities improvement

The degree of infrastructure, services and amenities improvement with regards to components such as types of basic services, additional infrastructure upgrades, and additional investments and social amenities provision in and surrounding the areas of government housing delivery enables some of the positive economic impacts of government housing delivery on the residential property market to be identified.

³⁰ Source: Kayamandi municipal project specific survey; n=34

³¹ Source: Kayamandi municipal project specific survey; n=27

³² Source: Kayamandi beneficiary survey; n=741

The beneficiary survey results revealed these changes in access to basic services (table 3.14). Access to basic services post-housing assistance has improved drastically. Hardly any differences in change in access to basic services between the RDP and the BNG regime projects are noted.

Table 3.14: Access to basic services

Access to basic services		Pre assistance	n	Post assistance	n
Access to piped water	No access	16%	786	1%	792
	Inside dwelling	16%		48%	
	Inside yard	38%		43%	
	Communal tap	30%		7%	
	Total	100%		100%	
Access to electricity	No access	46%	783	8%	791
	Inside dwelling with meter	15%		16%	
	Inside dwelling prepaid	36%		76%	
	On stand not dwelling	2%		1%	
	Total	100%		100%	
Access to toilet facilities	None	10%	769	1%	776
	Pit latrine	54%		10%	
	Flush toilet	36%		89%	
	Total	100%		100%	

Source: Kayamandi beneficiary survey, 2010

As well as services and bulk infrastructure upgrades in prioritised geographical areas, approximately 20%³³ of projects obtained additional investments from other departments. See photographs 3.3 below. Types of investment:

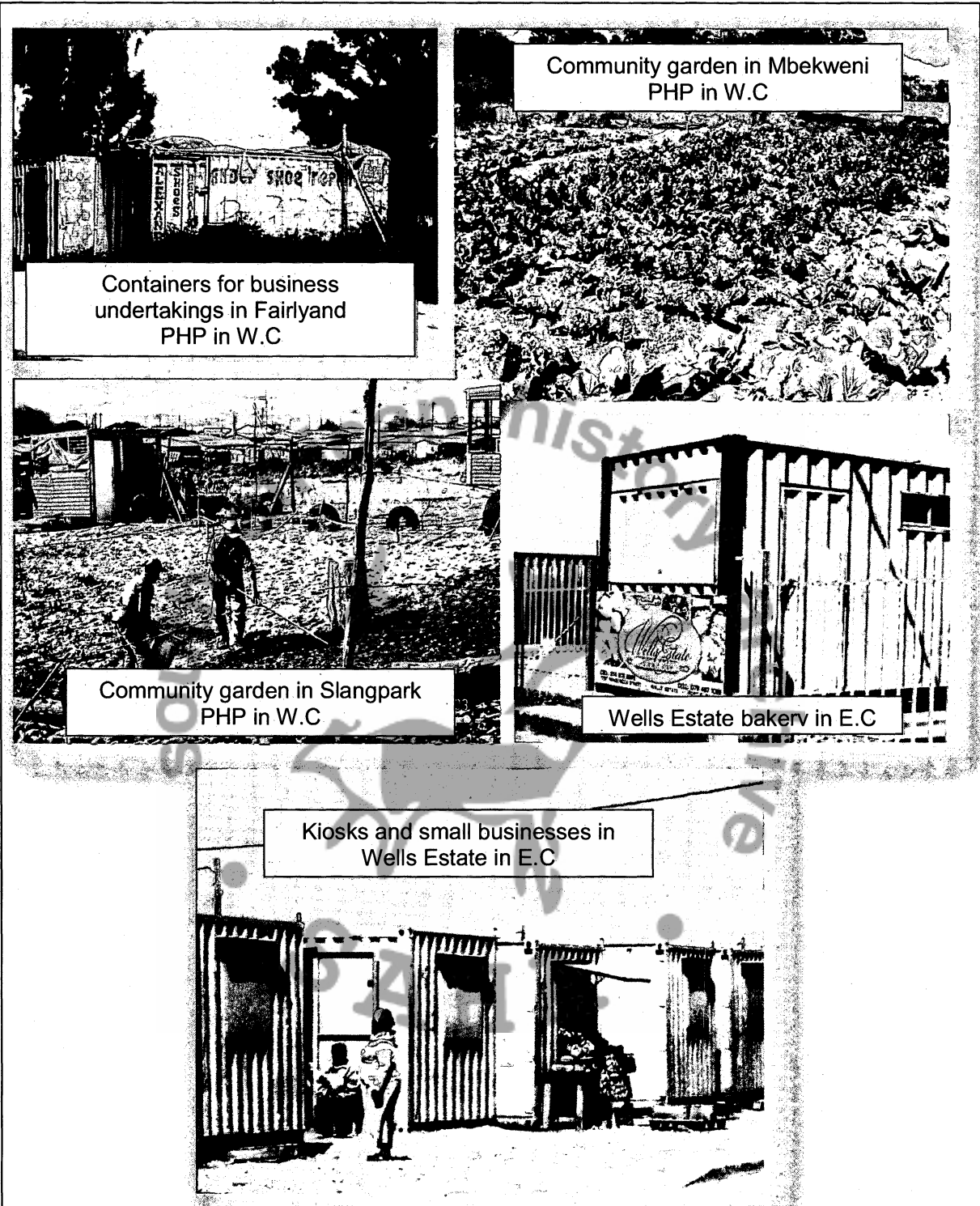
- ◆ Bakeries
- ◆ Churches
- ◆ Clinics
- ◆ Crèches and schools
- ◆ Establishment grant/loans
- ◆ Food gardens
- ◆ Hawker containers and/or market places
- ◆ MPCC
- ◆ Solar panels

Sources of investments, other than municipal, include:

- ◆ Private and international donors
- ◆ Department of Labour
- ◆ MIG funding
- ◆ Department of Education
- ◆ National Housing Finance Corporation
- ◆ Department of Health

³³ Source: Kayamandi Municipal and Provincial project specific survey, 2010; n=81

Photographs 3.3 Attraction of additional investments



Containers for business undertakings in Fairlyand PHP in W.C

Community garden in Mbekweni PHP in W.C

Community garden in Slangpark PHP in W.C

Wells Estate bakery in E.C

Kiosks and small businesses in Wells Estate in E.C

Many of the housing projects have attracted additional shops or businesses in or next to them, the majority being informal and focused on spaza shops, taverns, hair salons, food markets, motor repairs, community gardens, bakeries, and even small retail complexes selling basic essentials. There are some exceptions where the attraction of more formal investments has been noted.

The increased expenditure within housing delivery areas in terms of improved services, improved bulk infrastructure and increased socio-economic investments, even if minimal, should have a positive impact on the residential market, especially in areas where limited or no investments and expenditure have taken place for some time. As with any development, these improvements are expected to result in an increase in the value of properties compared with before the intervention.

Stated differently, improvements in the use of land, as one of the effects of housing delivery, no matter where it is located, have a direct bearing on economic growth. Urban LandMark & UN Habitat (2008) reveals that in various development countries improvements in the accessibility and effective use of land, whether urban, peri-urban or rural, have a direct impact on economic growth in those countries.

3.3.3 Functioning of the residential property market

The degree to which government housing expenditure and delivery break barriers in the residential property market can be measured in terms of components such as use of living quarters as collateral for loans, trade in residential properties, and change in market prices.

Use of house as collateral for obtaining financial loans

One of the aims of housing delivery is to facilitate and ensure the availability and accessibility of affordable housing finance products / instruments and savings schemes for low- to medium-income households.

Even though large improvements in tenure have been obtained, only 3%³⁴ of the beneficiaries obtained privately financed housing bonds. Furthermore, only 4%³⁵ of beneficiaries used their house as collateral for loans or to access credit/financial services. Nonetheless, the number of beneficiaries who have formalised their financial affairs since moving into government homes has increased: approximately 47%³⁶ of beneficiaries had a bank account in their previous dwelling, whereas approximately 62%³⁷ of all beneficiaries have bank accounts in their current dwellings.

In an attempt to determine whether banks are providing loans, beneficiaries were followed up to determine whether they are not obtaining bank loans because they are not applying for them or because the banks are not lending. Approximately 8%³⁸ of the beneficiaries applied for bank loans using their house as collateral, all of whom were granted loans.

³⁴ Source: Kayamandi beneficiary survey; n=788

³⁵ Source: Kayamandi beneficiary survey; n=753

³⁶ Source: Kayamandi beneficiary survey; n=761

³⁷ Source: Kayamandi beneficiary survey; n=784

³⁸ Source: Kayamandi telephonic beneficiary follow-up and confirmation survey; n=57

In an attempt to obtain more information from the banks, banks throughout the country were contacted. Their responses are as follows:³⁹

- ◆ Only a limited number of government housing beneficiaries come to obtain personal loans, mostly to undertake renovations to their existing homes.
- ◆ The banks do not receive many requests for loans in which the house is used as capital, or loan applications to purchase or contribute to a house.
- ◆ One of the banks near Orange farm in Gauteng reported that it obtained about ten applications a month from beneficiaries who wish to procure affordable housing loans. Beneficiaries, however, prefer to obtain personal loans to expand their existing homes or to build their own homes. Approximately six to eight of the ten loan applications are granted monthly.
- ◆ Another bank near Olievenhoutbosch revealed that it does not receive a lot of loan applications in which the house is used as collateral, but about 15 beneficiaries per month come in to obtain personal loans to renovate existing homes.

The surveys nonetheless revealed that there is not much of a relationship between government housing and end-user finance. Many of the beneficiaries reported that the house was 'free' and required no additional payment.

According to Napier (in Urban LandMark, 2007), possibly because of production of essentially free houses (a small entry payment required only in the last few years), little housing production is taking place between the low-cost state-subsidised houses (a product cost of around R35 000) and the lower end where banks were more willing to mortgage a house around R160 000 (Banking Association of South Africa in Urban Land Mark, 2007). More recent commitments by major South African banks to lend downmarket (to households with monthly incomes between R2 500 and R7 500) have confirmed the lack of production in this band.

Smit comments that the encouragement by banks to lend downmarket and to compel developers to produce mixed income developments are however recent efforts by government, to correct the market distortions that have arisen as a result of large amounts of subsidised low income housing production (as in Urban LandMark, 2007).

Residential property market and trade in properties

The establishment of an effective secondary residential property market in low-income areas is viewed by many as enabling delivery of government housing to more deeply stimulate local economic development, job creation, and broad-based economic empowerment.

³⁹ Source: Kayamandi banksurvey; n=35 banks distributed throughout the country

For instance, in the 'Workings of Township Residential Property Markets' study, Rust (2004) shows that success of the housing programme is dependent on trade and ineffectiveness in the secondary residential property market in townships undermines economic benefits.

Besides social housing projects, local municipalities are aware of house sales in approximately 42%⁴⁰ of the housing project areas, with little difference noted per type and year. The percentage of houses per project that changed ownership is 6%⁴¹.

More than a quarter (26%)⁴² of beneficiaries are aware of households that have sold their houses. No difference is noted between RDP and BNG regimes with regards to house sales/rentals.

However, the survey results reveal that the majority of beneficiaries are not planning to move/sell. Approximately 10% of beneficiaries are planning to sell or move or considering selling and moving. See table 3.15.

Table 3.15 Beneficiaries' future plans to move/sell

Response	Percentage
Yes, planning to move/sell in the future	7%
No, not planning to move/sell in the future	90%
Maybe planning to move/sell in the future	3%
Total	100%

Source: Kayamandi beneficiary survey, 2010; n=764

More than a third of **social housing** beneficiaries are planning to move/sell in the future, which is related to social housing beneficiaries being more 'footloose'.

Those that are planning to sell or considering selling or moving mostly want to move to the suburbs, the CBD, or a better area. Other places to which beneficiaries wish to move include:

- ◆ Any place with greater potential for job opportunities
- ◆ Closer to or within walking distance of work
- ◆ Another area or township with better-quality houses
- ◆ A more affordable place with lower rentals (applicable to social housing)
- ◆ A safer place
- ◆ Anywhere with a bigger house
- ◆ Moving back to family and/or home village

The survey results thus reveal that land markets created by government housing programmes do operate in housing settlements, albeit to a low degree. Urban LandMark (2007) confirms that

⁴⁰ Source: Kayamandi municipal project specific survey; n=31

⁴¹ Source: Kayamandi municipal project specific survey; n=28

⁴² Source: Kayamandi beneficiary survey; n=752

household mobility within urban areas has remained low and a market in most low cost housing in areas is only beginning to develop.

Rust (2008) states that the eight-year resale restriction means that households are not able to sell their subsidised house if the need to move arises. This could probably result in households deciding not to move in order to keep a hold on their house. This may perhaps undermine their search for employment. Rust (2008), however, comments that households will probably sell their houses informally. Legal formal transactions have been possible only for the last eight years.

However, the beneficiary survey results show that only 5%⁴³ of beneficiaries are aware of the restricted sale timeframe.

The degree to which the sale restriction probably undermines employment search is shown in table 3.16.

Table 3.16 Degree to which sale restriction undermines employment search

Degree of undermining employment search	Percentage
Restricts search completely	8%
Some restriction on search	25%
No restriction	67%
Total	100%

Source: Kayamandi beneficiary survey, 2010; n=712

One of the unintended consequences of housing delivery is that owing to the sale restriction, greater trade in informal housing units is believed to occur, which is related to lower prices (formal versus informal sale), loss of property ownership records in subsidy housing areas, and minimisation of access to finance with housing as collateral owing to lack of formal title deeds.

As stated above, households have been restricted in selling the house before eight years (and more recently five years). The survey results also show that less than half of government housing beneficiaries received access to title. According to Shisaka (in Urban LandMark and UN Habitat, 2008) other transactional problems relate to the following: —

- ◆ Transfer of a property cannot occur legally unless the property is valued and a clearance certificate for payment of all rates and service charges is provided.
- ◆ Limited service providers (estate agents, property valuers, etc) operate in former black townships. Most households buy or sell property by word of mouth.

The result has been greater transactions in the informal market, as opposed to the formal housing market, which affects the value of the financial asset. The formal market is characterised by active

⁴³ Source: Kayamandi beneficiary survey; n=744

buyers and sellers, willingness of banks to use housing as collateral for loans, and the establishment of increased values for houses.

In short, the secondary residential property market in low-income areas is starting to develop, but is far from effective. However, given the restriction of sale, and the relatively short timeframe within which beneficiaries have been living in government housing (at most 15 years for the few beneficiaries that obtained the first batch of government houses), the length of time that many had waited for a government house, the costs involved with relocating, the high costs of living in another area, and attachments, it is considered unlikely that a fully functioning vibrant secondary market should exist or be expected.

Change in property market values

Approximately 38%⁴⁴ of the projects were reported by the local municipalities as having impacted on the low-income residential market, whereas approximately 15%⁴⁵ were reported as influencing the formal property market. Municipal interviews generally show that the low-income informal housing market is affected since it fulfils a need and demand and provides beneficiaries with better living conditions. The property market has supplied additional accommodation to those in the low-income bracket in the market, but this has not led to a non-functioning of the market.

There are major differences in municipal opinions as to whether property prices are impacted at all, and whether the property market is impacted positively or negatively. Many municipalities show that the property market is not influenced by government housing as housing projects are located mostly on the outskirts of towns, far from middle- to higher-income residents, and, if traded, are seldom sold through formal channels. Other municipalities claim that housing projects have more of a positive influence on the property market and that all property values escalate over time. Some reveals that it is only rumours that property markets have dropped in areas of low-cost housing. Some can prove that housing assistance has regenerated areas, while others can prove from valuation rolls that property prices have been positively or negatively impacted.

Asset gain is key to enabling poverty reduction, while asset loss plunges people further into poverty. Where a house becomes a tradeable asset, it is an asset that can be lost. When that asset is lost, then utility value is lost. This is especially true if housing is traded far below market value, which will not enable upward mobility on the housing ladder. Thus, while increased trading is considered to be associated with facilitating decreased poverty, it needs to be carried out in terms that do not put greater numbers of people at risk of greater vulnerability.

The preferences and choices of low-income residents are not the same as those of the middle- to high-income groups. Low-income groups probably see a home more as a social asset for which they have waited some time, and are reluctant to view the house as an asset with appreciating value that can be sold for gain. The value of Government housing units are thus often based on those

⁴⁴ Source: Kayamandi municipal project specific survey; n=34

⁴⁵ Source: Kayamandi municipal project specific survey; n=32

demanded by beneficiaries for their own reasons at the time of sale. Owners are thus not always able to raise much capital with their asset, or realise its growth in value.

However, it is assumed that beneficiaries are beginning to undertake some form of current valuation of their home in an informal manner, based on aspects such as the savings and resources invested; the spaza shop run from their home; the people living next door; the economies around them; existing or potential income generation ability from their home; and the distance from social amenities (parks, clinics, etc). All of these give the property an economic value. If there are economic opportunities nearby and people can realise a cash flow or increased livelihood from better housing, people will trade. However, in some cases, beneficiaries trade as a last-resort survival attempt. But if they do not see that opportunity or do not have to trade, they probably will not move. The costs of moving and searching for accommodation elsewhere are considerable, especially if nothing much is gained.

While supply and demand in informal markets are mediated more by social relationships than financial logic, research shows (Kironde, Syagga et al in Urban LandMark & UN Habitat, 2008) that peri-urban land practices are increasingly becoming commodified, and transactions, as in the formal sector, are becoming more and more driven by financial logic. Informal sale of peri-urban land is fast becoming a vibrant trade and sellers are able to fetch market-related prices. But, without a formal system for registering land owners, transactions are vulnerable to illegal sales (such as selling the same house to more than one person), which discourages further sales. The informal sector is developing means (adopted from formal processes), even if not legally recognised, of addressing this fraud, such as issuing agreements witnessed by recognised community leaders (Urban LandMark & UN Habitat, 2008).

Harris (in Rust, 2008) states that residential sector efficiencies have a deep impact on economic growth and, besides providing housing, play a 'market enabling' role by improving scholastic attainment, reducing crime and social problems, etc. That is, in addition to shelter, housing can contribute towards creating an improved living environment, which in turn can have an indirect and positive influence on the ability of households to secure employment, and on the performance of labour markets. It can also improve welfare, impact on wage rates and migration trends, etc.

However, unintended market distortions created by government housing delivery in the secondary housing market are:

- ◆ Problems with ascertaining market value where there is thin trading
- ◆ The individual subsidy for the purchase of existing homes contributing to the thin secondary market
- ◆ Resale restriction for subsidised housing
- ◆ Lack of vacant, serviced land on which low- and middle-income households can develop their

own houses

- ◆ No means of expression of demand for location within the formal market for the poor market. This is noted in the growth of informal settlements, which is why to a degree subsidy supply-driven state intervention seeks to focus on informal settlement upgrading
- ◆ Limited production of low- to medium-income housing, commonly known as the unintended creation of the housing 'gap' (Urban LandMark, 2007; Rust, 2004).

According to Urban LandMark (2007), one of the outcomes of property market distortion is that upper-market house prices have seen unprecedented growth (before the global economic downturn), unlike low-income house prices. Consider the following:

- ◆ Government housing:
 - Government housing has an average production price of R35 000.
 - There is limited research on the tradable value of subsidized housing, although it is understood that there has been substantial depreciation in formal sales (Rust, in Urban LandMark, 2008).
 - The resale value of a subsidy house is as low as R5 000 (Department of Housing in Urban LandMark, 2008).
- ◆ 'Affordable' housing
 - 'Affordable' housing – which commercial banks are more likely to mortgage – has an average price of R150 000 and properties between 40 m² and 79 m².
 - Affordable houses appreciated by only 70% between 2002 and 2006 (Rust in Urban LandMark, 2008).
- ◆ 'Middle-class' housing:
 - Middle-class small houses are valued at around R600 000.
 - 'Small' houses in the middle-class market appreciated by 120% between 2002 and 2006 (Rust in Urban LandMark, 2007).
- ◆ Top-end market prices:
 - At the top end of the market, house prices doubled or trebled between 1999 and 2005 (Brown-Luthango in Urban LandMark, 2007).

The increase in property prices, prior to the downturn in global markets, has not been distributed across all properties. Property price growth trends since 1994 reveal that property prices at the upper end have more than doubled, while growth in the 'affordable' market has been more gradual, with more significant increases since 2005. There is a widening gap between affordable housing and the 80 m² to 400 m² housing market, making it increasingly more difficult to move from one segment to the next (Urban LandMark (2007c).

The land market is not working well for poor households because they do not have access to a

variety of options, such as prospects of upgrading to a more formal option if desired. There are numerous options towards the informal end of the continuum. However, the only option towards the formal end of the continuum is a government house, with little or no choice in terms of location, type of accommodation, form of tenure, and affordability level (Urban LandMark, 2008b). Lack of choice of location, affordability, size (indoor space per capita), etc, thus question the adequacy of government housing programmes.

However, according to a study on 'The Dynamics of the Formal Urban Land Market in South Africa' by Urban LandMark (2008e), market data suggests that across the major cities (Johannesburg, Durban, Bloemfontein, Cape Town and Nelspruit), house prices have not grown in a consistent manner. Some have experienced growth below inflation or even negative growth, and there is a significant overlap in the property prices of suburbs and townships across metropolitan areas. The research shows that this means increased affordability of these suburbs in real terms, and increased formal market entry and mobility for households in township areas that were historically excluded. This also means that for those who can access a mortgage, the affordability of metropolitan housing and the range of residential suburbs from which to choose have recently improved. In other words, evidence indicates that the price barriers which historically hindered mobility between townships and residential suburbs are being eroded.

Nonetheless, unequal gains from either end of the property market, to date, have given rise to the view that the two economies (formal market and informal market) operate alongside one another (Urban LandMark, 2007). According to the Department of Housing:

The reality of the second economy is that a subsidy house can be bought for a mere R5000 despite the fact that government spends around R25,000 to build it. It has no real financial value. There is an almost non-existent housing secondary market in most, if not all, townships with owners failing to sell their properties even if they could afford to buy a better house in the suburbs. In a stagnant, non-active housing market where investors make losses, getting no return on their investment, where red lining means access to credit is virtually barred ... home ownership is a burden rather than representing wealth creation (in Urban LandMark, 2007).

Owing to this recognition, one of the key objectives of BNG is to support the functioning of the entire single residential property market to reduce duality within the sector by breaking the barriers between the first economy residential property boom and the second economy slump. (Department of Human Settlements, 2004)

Recent moves to produce mixed-income developments, in accordance with BNG policy, attempt to address distortions such as mono-functioning areas, housing gaps, and housing developments that are poorly located in relation to economic opportunities. Few developments have been undertaken

with the mixed-income approach and it is rather early to evaluate those that have or to understand the transactions and impact on the property market.

Nonetheless, the market currently still excludes large numbers of people from participating in and benefiting from its operation. Their inclusion in the long run will depend largely on the tempo and pattern of national economic growth, and resultant employment levels and per capita incomes of a large proportion of the population who are currently unemployed or contribute marginally to the formal economy (Urban Land Mark, 2008e).

In addition to the focus on shelter provision which dominated the approach over the first decade, the housing subsidy intervention has created assets for the poor which are being traded (more so in the informal market) and even if limited secondary market trade occurs, it can be collateralised.

Though there are still many constraints that need to be addressed in the property market, housing delivery has created an enabling environment for asset creation, which some poor families value highly, as evidenced by housing renovations, expansions, additions, savings and other resources invested in it.

3.4 Sustainable human settlements and spatial restructuring

The Department of Human Settlements intends to ensure that housing investment optimally achieves spatial restructuring and improves the national space economy. The policy intention of BNG is to emphasise homes over houses, quality over quantity, and communities over residential developments, with a shift from 'housing units' to 'sustainable human settlements'.

This sub-section reports on the achievement of the Department's intended outcome of utilising housing as an instrument for sustainable human settlement development in support of spatial restructuring and refers to:

- ◆ Housing identification process and criteria for assessing projects
- ◆ Generating income
- ◆ Surrounding community and environment
- ◆ Location and access to opportunities

3.4.1 Housing identification process and criteria for assessing projects

The way in which projects are identified and assessed provides an indication of the potential for the creation of sustainable human settlements.

Housing identification process

Provincial and municipal interviews reveal that sustainability is subjective. For some, amenities within a 5 km radius are generally accepted as or perceived to be sustainable, for others the objective is always to be sustainable (even if not always achieved), while for others sustainability can only be determined in the more distant future as it mostly comes with time.

According to interviews with each of the nine provincial departments, the housing identification process has changed substantially over the last sixteen years with alterations in the date of implementation of approach differing slightly per province.

The common approach noted from **1994 to 1999** was that of developer-driven projects. Developers approached the provincial housing boards, independently or on behalf of municipalities, and requested a subsidy on vacant land for people working in a certain area or for a certain company. These were seldom planned with provincial and/or municipal inputs, and applications were handled on a first come, first served basis. This meant that housing projects were often built in unsuitable areas. Government provided the subsidy and the developer did the rest. Beneficiaries even signed agreements with the developers. In some cases provincial MECs identified contractors, and the contractors were then required to pinpoint possible beneficiaries and projects. In 1998 the dissolution of the housing boards placed all responsibilities on the provincial MECs. To date, provincial MECs approve projects.

From **1999 to 2004/6**, with the new municipal dispensation fully implemented, municipalities became more involved and started to do their own settlement planning, but the process was still not sufficiently structured. The integrated development plan (IDP) process became compulsory and the municipal housing chapter (if undertaken) was intended to guide settlement planning. Housing was still awarded on a first come, first served basis. The new municipal procurement system, however, was implemented in 2002, which assisted with identifying private developers through the tendering system. In this timeframe a shift from developer-driven to departmental-driven approaches (in line with IDPs) was noted.

From **2004/6 to date** the housing identification process has improved significantly with human settlement planning becoming more common after the BNG policy was accepted and implemented nationally (mostly from 2006 onwards) and with improvements in municipality capacity from accreditation. In line with BNG policy, provincial departments were forced to do forward planning, such as identifying spatial information, including geo-technical information, addressing backlogs, services and land availability. Currently provinces allocate funds for housing projects, and the IDP and human settlement plans form important tools to motivate decision making for the selection of housing projects. Provincial departments do not identify projects, but in some cases projects are run

by provincial departments, such as presidential projects, for instance the N2 Gateway Housing Project in the Western Cape. In short, projects are identified at municipal level in line with IDPs and human settlement plans.

Human settlement plans are intended to identify community needs (backlogs, beneficiaries needs, locations, infrastructure readiness, waiting lists, etc) and a prioritisation process occurs, based on a list of housing needs per municipality. Once projects that ought to receive a subsidy have been identified, the MEC of the provincial department advertises the housing development in a tender, and requests contractors to submit their proposals or profiles. The provincial department then evaluates the proposals, and makes recommendations to the MEC, who decides on the allocation of projects.

The provincial departments then deal with a three-year multiplan. In this plan a conditional grant is used for building top structures. The municipality approaches the Department with housing needs already identified. The chosen location should have full services on approaching the Department. The proposal submitted to the Department needs to be aligned with the IDP of the municipality.

In short, from **2004/6 to date** the identification process has changed from being department driven to being driven by needs.

According to provincial housing officials, the housing identification process described above is the same per subsidy instrument, with the exception of **social** and **individual** housing projects. Social housing projects are the responsibility of SHIs, and are thus initiated by social housing institutions. Cosmo city in Gauteng is an example of a project in which a number of housing programmes exist in one. In such cases, SHIs and provinces are involved in project identification. Individual housing projects on the other hand have a predetermined cost, and tenders are not called for. A database of contractors is kept, and the preferred contractor is 'invited' to undertake development.

Interviews with provincial housing officials and contractors have indicated that greater consideration for location, density and compaction of cities needs to be given during project identification, and provinces generally are constrained by the IDP process. In many municipalities this is still flawed, with housing principles and human settlement plans poorly integrated (if at all) into IDPs and spatial development frameworks (SDFs).

Criteria for assessing project applications

Criteria for assessing project applications – such as the extent of addressing housing needs or demand, requirements for good location, employment potential, and extent to which a project promotes economic and physical integration into its area – play a vital role in determining the

economic outcome of housing delivery programmes.

The majority of provincial housing officials indicated that criteria for assessing project applications are adhered to and taken into consideration, however, hardly any have formalised criteria or a 'scorecard' with weightings attached to it. The only exception was the Western Cape Department, which has developed and uses a **Sustainability Criteria Tool** for evaluating housing projects based on provincial guidelines and integrated with settlement-specific requirements. Such a tool is valuable in ensuring maximisation of economic, social and ecological impact.

Furthermore, North West revealed the use of a one-page monthly progress sheet, which is intended to capture a variety of project-related information, including job creation and labour intensiveness. In the main, however, much of the information is not captured. Other provinces undertake monthly progress reviews, but other than North West, no detailed progress monitoring sheets have been noted. If captured, this progress sheet could be used to improve future monitoring of economic impact.

For monitoring purposes, it is relevant for instance to note that **social** housing beneficiaries have to deregister when they move out of a housing project, and their names must be removed from the database. If this is not done, their names stay in the database, and they will not be able to receive housing assistance, because they are recorded as currently benefitting from it. Beneficiaries often move (disappear) if they owe money (rent), and the SHI sometimes neglects to bring this to the attention of the Department.

3.4.2 Generating income

The financial impact of housing delivery over the last sixteen years with regards to components such as the impact on the municipal tax base or income generation and costs of bulk infrastructure and service delivery provides an indication of how delivery of government housing has assisted with creating sustainability human settlements.

Impact on municipal tax base

In theory, municipalities' income bases should expand owing to government housing provision and the resultant increased tax payment from beneficiaries. However, for municipalities to obtain increased tax from beneficiaries, beneficiaries should at least be billed for service provision. On average, the treasury/finance divisions of sampled local municipalities showed that beneficiaries of 40%⁴⁶ of sampled housing projects are sent monthly accounts, and the beneficiaries of the remaining 60% are not furnished with accounts. Based on these surveys, and taking into consideration the average percentage of accounts submitted, the average value of services accounts sent out to government housing beneficiaries for water, electricity, sewerage, refuse

46 Source: Kayamandi, Municipal project specific survey, 2010; n=82

removal, rates, taxes and rentals (in the case of social housing) is R194⁴⁷ per unit per month. This figure is believed to be realistic and conservative in that beneficiaries state that the average value of accounts received is R260⁴⁸ per month per unit. Owing to monthly rentals being required, households from **social housing** programmes are billed far more than households from other subsidy types. Refuse removal has been indicated as not being charged for in some of the housing projects because cooperatives collect the refuse free of charge to generate income from sale of sorted refuse. This is a good example of a job creation initiative that can be stimulated alongside housing development projects.

Since **social** housing subsidies are managed by institutions, and they reportedly utilise the 'no-pay no-stay' policy, nearly all social subsidies accounts are paid in full. Based on the projects which are submitted accounts, on average approximately 51%⁴⁹ of the value of accounts sent out to household beneficiaries is paid. No major differences are noted between the RDP regime and the BNG regime in payment of accounts. Recovery of accounts sent out in rural areas is far lower than that of urban areas.

Taking into consideration the extent of submitting accounts, the average value of these accounts, and level of payment by beneficiaries of housing projects, the value of income generated by service delivery amounts to an average of R150 per unit. This figure is 'validated' by considering the income of beneficiaries. Survey results and interviews with provincial and municipal officials revealed that the norm utilised to determine affordability is based on beneficiaries using 25% to 30% of their household income on rates, taxes and services. Taking these parameters into consideration, as well as average reported beneficiary incomes,⁵⁰ percentage of accounts submitted, and percentage of beneficiary payments, the average service delivery payments are estimated to amount to R129 per unit. The monthly amount of service delivery payments per unit is confirmed by beneficiaries, who state that the average monthly payment of services is R125⁵¹ per unit.

Taking into account the payment of rates for social housing, the average payment of rates (applicable to social housing) and services for all government housing projects over the last 16 years is R169 per unit at 2010 values.

However, there are unintended negative consequences of housing delivery for the tax base of many municipalities. These negative effects were noted from the surveys and interviews with regards to the quantity of additional municipal income created from service delivery:

- ◆ For many municipalities, income is not being generated. Some report that this is because beneficiaries have to open consumer accounts with the municipality to receive their bills. Since they did not open such accounts, many beneficiaries are not billed and hence do not pay. Housing subsidies create financial and service delivery burdens for many municipalities

47 Source: Kayamandi, Municipal project specific survey, 2010; n=82

48 Source: Kayamandi beneficiary telephonic follow-up and confirmation survey, 2010; n=51

49 Source: Kayamandi Municipal project specific survey, 2010; n=28

50 See Section 4 of the report

51 Source: Kayamandi beneficiary telephonic follow-up and confirmation survey, 2010; n=56

because of uncertain payment of services, with resultant widespread unsustainability of service delivery. Some municipalities reported that the costs of services delivery exceed the benefits from housing delivery.

- ◆ Many municipalities state that their municipal areas are inundated with people from neighbouring areas and areas further afield, owing to greater activity and potential for economic opportunity in the area. These people require housing assistance, which simply increases pressure on the municipalities to deliver. In other words, success in housing delivery and services and economic growth in an area encourage greater in-migration, with the housing backlog becoming a 'travelling' target.
- ◆ Many beneficiaries do not pay for their services because they are unemployed and/or registered as indigents or they think that everything is free.
- ◆ Once indigents have been registered, this creates income for municipalities because government subsidises their service delivery.
- ◆ Some municipalities budget for the annual provision of free services and non-payment, and do not see housing as a burden to them.
- ◆ For some municipalities, accounts are sent out and income is generated. Credit control policies are in place and work well.
- ◆ Many beneficiaries have large outstanding water and electricity bills because contractors do not bring services when erecting houses, and use services from the beneficiary's stand. Beneficiaries are reluctant to pay these high service bills. Often this is assumed to relate to overall uncertainty about service billing from the municipality and non-payment of services by beneficiaries. These bills should be recovered from the contractors and not the beneficiaries.
- ◆ Lack of water meters allows beneficiaries to question their water bills, with the resultant refusal to pay, as there is no proof of the amount of water consumed.
- ◆ In many housing projects, individual consumption meters still have not been installed and residents are billed a flat rate per month for water (and rarely also for electricity). Residents argue that this is unfair. Owing to lack of proof of the amount of water consumed, beneficiaries are reluctant to pay.
- ◆ Problems are noted in the collection of rates from deceased beneficiary households. When the beneficiary dies, the tenant of the house applies for indigent cover for water usage. The municipality bills the deceased for rates. Thus millions each year are 'uncollected' in rates. Some families cannot take transfer of the deceased estate because they cannot afford transfer duty. They need the master of the court to wind up the estate and transfer it to the family or for the department to undertake transfer duty and related costs. Another repercussion is that the family living in the deceased's house apply for a low-income house and are often awarded one. This means that some families have benefitted twice, which is an unnecessary expense.
- ◆ Many municipalities are unable to quantify the income obtained from government housing projects separately.

Generally, while municipalities receive additional income through service delivery from subsidy housing, the majority are burdened financially in that their net income (income less expenditure) – taking into account the cost of service delivery and free basic services provision – is negative.

Though many municipalities are burdened through service delivery, there are ways of improving cost recovery for municipalities, which can assist them in generating income or at least breaking even, such as utilising national grants for indigents, improving accuracy of indigent records, and cross-subsidisation from wealthier households. The mindset of municipalities needs to be changed from the perception that subsidised housing is bankrupting them to seeing the numerous opportunities for wealth redistribution and economic development that housing can provide.

Service delivery and bulk infrastructure contribution

On average over the last sixteen years the survey findings have revealed that municipalities have not contributed much to service delivery for housing projects. The whole housing subsidy was utilised mostly for top structure and services. The 2005 amendment to exclude land from the subsidy amount, and the 2007 amendment to exclude services as well, has brought about changes, which in theory are believed to almost double the value of the subsidy. Where municipalities cannot handle the additional financial burden, provincial authorities are required to provide support.

This finding is 'mirrored' in a report from South African Cities Network (2007), which states that

For city governments, confronting the 'poverty challenge' is perhaps their central priority. While poverty is a broad and multifaceted problem, and cities have a general developmental responsibility within their areas of jurisdiction, in practice the bulk of the poverty challenge as it affects city governments is about dealing with the housing backlogs and providing municipal services to poor households at below or no cost. Much of the financial responsibility for housing construction is carried by the national government. Therefore, dealing with the housing backlogs may be a project management challenge, but should not be a financial burden. The same goes for the provision of free services, though the ongoing costs of this are far higher. In theory these costs should be covered by equitable share grants. In practice, however, things are somewhat different: specifications are raised ever higher, the subsidy fails to keep pace, and top-up funds are sought. Despite the comprehensive package of grants available to cities for financing their service delivery to poor households, cities do ultimately carry significant costs and risks.

Bearing in mind the percentage of the projects that have required municipalities to assist with capital costs of service delivery, the value that municipalities have had to contribute is an average of R257 per unit.

For approximately 10%⁵² of the projects, the municipalities had to upgrade bulk infrastructure, owing to capacity constraints caused by the project. The need for bulk infrastructure upgrades because of

⁵² Kayamandi Municipal Project specific survey, 2010; n=82

capacity constraints caused by housing delivery projects seems to have decreased over the last couple of years since the BNG era, and possibly with better locations with existing bulk infrastructure, improved infrastructure service delivery in general, and large-scale eradication of informal settlements and in-situ projects which are undertaken on sites that are already serviced.

According to the surveys, hardly any jobs have been created in municipalities because of delivered housing projects. Limited indications of newly created permanent jobs refer to those in refuse removal. Some municipalities, however, are in the process of accreditation, which needs an increased workforce in the housing unit.

3.4.3 Surrounding community and environment

By enhancing the community with regards to aspects such as influencing health, impacting on crime, and altering school or work performance, housing investment and delivery over the last 16 years have assisted with the creation of sustainable human settlements.

Government housing affects exposure to criminal activities. See table 3.17 for the degree of change in these crime-related components post-housing assistance.

Table 3.17: Degree of change in crime components post-housing assistance

Component	n	Major decrease	Some decrease	Unchanged	Some increase	Major increase	TOTAL
Contact crime: murder/rape /assault/aggravating robbery	796	9%	19%	28%	22%	22%	100%
Property crime: burglary/theft	795	10%	19%	26%	24%	21%	100%
Costs of criminality eg insurance, lost work days	782	8%	10%	58%	16%	8%	100%

Source: Kayamandi beneficiary survey, 2010

More than half of the beneficiaries reported that contact and property crime levels have remained unchanged or decreased. However, contact crime and property crime have been reported by beneficiaries to have increased by 44% and 45% respectively. More than three quarters of beneficiaries revealed that the costs of criminality, in terms of lost workdays for instance, have remained unchanged or decreased, whereas nearly a quarter of beneficiaries indicated that since housing assistance, the costs of criminality have increased.

High levels of crime in a community have been noted where there is no togetherness and social cohesion among the members.

The link between spatial restructuring and crime is observed mostly in social housing. Social rental housing includes extra measures of urban management, safety measures and social cohesion because of higher density. These measures affect the crime level.

Table 3.18 shows the degree of change post-housing assistance as reported by beneficiaries on health-related matters.

General health status has mostly remained unchanged, while approximately a third of beneficiaries reported improved health status.

Table 3.18: Degree of health status improvement post-housing assistance

Component	n	Major decrease	Some decrease	Unchanged	Some increase	Major increase	TOTAL
General health of environment: eg pollution, water quality, noise	789	7%	19%	33%	24%	17%	100%
Change in access to better health services	789	4%	14%	46%	24%	12%	100%
General health status of household members	782	3%	10%	55%	20%	12%	100%

Source: Kayamandi beneficiary survey, 2010

The general health of the environment has mostly been reported as increasing, represented by 41% of beneficiaries, while 33% reported it to have remained unchanged and 26% reported it to have decreased.

Nearly half (46%) of beneficiaries stated that access to health services had remained unchanged, whereas more than a third (36%) reported improved access, and approximately 18% reported decreased access to health services post-government housing assistance.

More than half of the beneficiaries (55%) stated that the health status of household members has remained unchanged, with nearly a third (32%) reported improved health and 13% reported decreased health status post-government housing assistance.

Many housing beneficiaries are affected by HIV/AIDS. Municipal responses indicated that the Department of Human Settlements should partner with the Department of Health and Social Services and develop well-planned settlements with health amenities that are not isolated from opportunities. The Fairview MES institutional project in Jeppestown is an example of such partnering. It used to be an old age home for the Methodist Church and was converted into a hospice for Aids and tuberculosis patients.

From the surveys and literature there appears to be broad consensus that formal housing, irrespective of tenure or typology, plays an important role in improved health outcomes. The physical characteristics and quality of informal homes can produce negative environmental effects that may result in allergies, injuries, and other health problems. Unstable overcrowded housing environments may affect access to healthcare. High housing costs and lack of adequate water and sanitation may affect the amount that the household spends on essential items such as nutrition and healthcare, which may result in health problems. Poor health can result in loss of employment and loss of housing. That is, poor housing may be an effect of poor health.

Given the level of informal housing in South Africa, the SHF (2009) notes that social and other low-income housing perform equally well in terms of improved shelter and likely health outcomes. In the SHF cost benefit analysis (2009), location factors are considered likely to contribute to improved access to healthcare (especially secondary and tertiary hospitals).

However, access to healthcare facilities is better near the nodes of activity, and locating housing (such as social housing) close to these nodes increases access to health-care facilities. While access to primary healthcare facilities is available to all, irrespective of whether one lives in social housing or other low-income housing, the quality of primary health care facilities near the nodes of activity are substantially better than those further away from the nodes (SHF, 2009). Research by the SHF (2009) shows that beneficiaries in social and other low-income subsidy housing forms in the same income band (ie highest income band in social housing and lowest in other housing) have approximately the same education level, and thus no differences in health level are noted because of lack of knowledge of a healthy lifestyle.

Increased access to healthcare facilities leads to a better health level, because people can visit the doctor when necessary (SHF, 2009). This in turn leads to higher medical costs, but also to higher productivity and thus higher income. There might also be a long-term effect that better access to health care leads to fewer medical costs in the long run, because prevention is better (cheaper) than cure. Impact variables include:

- ◆ Higher or lower health bill
- ◆ Higher income
- ◆ Lower costs of travelling
- ◆ Lower number of days lost at work

If housing quality and affordability affect health, they probably affect educational and work performance too. School and workdays lost to illness and health-related disorders from environmental contaminants (which can reduce intellectual capacity) and the longer-term effects of undernourishment all influence educational achievement.

Government housing assistance over the last sixteen years also impacts on the school and work performance. The degree of change of school and work performance components post-housing assistance is shown below in table 3.19.

Beneficiaries have shown that time available for work/study, work/study stability and change in expected education/work attainment mostly remained unchanged post housing assistance. However, more than a quarter of beneficiaries stated that housing assistance has increased the time available for work/study, work study/stability and change in expected education/work attainment. The improved economic impact on these beneficiaries is profound.

Table 3.19: Degree of change of school/work performance components

	n	Major decrease	Some decrease	Unchanged	Some increase	Major increase	TOTAL
Time available for work/study	786	4%	5%	64%	19%	8%	100%
Work/study stability	779	3%	7%	63%	19%	8%	100%
Change in expected education/work attainment	778	3%	5%	61%	22%	9%	100%

Source: Kayamandi beneficiary survey, 2010

The degree to which housing assistance improved the educational status of household members is depicted in table 3.20. Educational status remained much the same or was improved by housing assistance.

Table 3.20: Degree of educational status improvement post-housing

Component	Degree of change	Percentage	n
New location of housing assistance improve educational status	Improved	37%	764
	Stayed the same	54%	
	Worsened	9%	
	Total	100%	
New housing unit of housing assistance improve educational status	Improved	35%	760
	Stayed the same	62%	
	Worsened	3%	
	Total	100%	
New social community of housing assistance improve educational status	Improved	29%	747
	Stayed the same	67%	
	Worsened	4%	
	Total	100%	

Source: Kayamandi beneficiary survey, 2010

The new location, housing unit, and social community of housing assistance improved education

status for 37%, 35% and 29% of households respectively.

The major reason given for location-related change in educational status is proximity: children are closer to school; household members are closer to town and work; and there are employment opportunities nearby. Another reason was that the location and closer proximity promote the ability to study, even in bad weather. Those that experienced a decrease or no change in educational status reported these reasons:

- ◆ Location of housing has remained unchanged.
- ◆ Nothing has changed.
- ◆ The new area is noisier than before.
- ◆ The new location is far from school and more is spent on transport.

The major reasons given for change in educational status because of the **new housing unit** are the ability to study, and better living space. In addition, the area consists of formal houses, not informal dwelling units, and is no longer congested.

Major reasons for change in educational status:

- ◆ Area consists of houses, not informal settlements, and is no longer congested
- ◆ Ability to study even in bad weather
- ◆ Better living space
- ◆ Employment opportunities
- ◆ Closer to library and other amenities
- ◆ More time to prepare for work and studies

The survey results provide evidence supporting a positive link between housing and educational outcomes. Formal housing, irrespective of density or tenure, plays an important role in increased household stability and the provision of an environment conducive to improved education – especially when coupled with access to electricity, water and sanitation. Increased tenure is thus not necessarily linked to increased educational outcomes, but rather to housing stability and good-quality housing and accessibility to services.

The Center for Housing Policy (2007) notes these positive impacts of affordable housing on education:

- ◆ Stable affordable housing may reduce the frequency of unwanted moves that cause children to change schools and disrupt educational instruction.
- ◆ Affordable housing strategies may help families move to communities that have stronger school systems.
- ◆ Affordable housing can reduce overcrowding and other sources of housing-related stress that

lead to poor educational outcomes.

- ◆ Well-constructed, maintained and managed affordable housing can help families address or escape housing-related health hazards, for example lead poisoning and asthma that adversely affect learning.

Biermann (2006) hypothesises that access to social housing – which tends to be located in or near areas with access to good schools in inner cities or suburbs – is likely to result in improved access to educational opportunities and educational outcomes. This hypothesis tends to be supported by the fact that the provision of educational infrastructure lags substantially in other government subsidy settlements and in some areas schools have still not been provided many years after housing has been built (SHF, 2009).

According to the SHF (2009), quality education is of great importance to housing beneficiaries. While access to schools is readily available, access to good schools is more problematic. High-quality government schools are located mostly in or near the nodes of activity. Government housing beneficiaries, subject to affordability of travel costs, are prepared to travel long distances if necessary to access quality schools. In the short term, the direct effect of living in or near the nodes of activity is that travelling costs are lower. In the long term, however, because more people can afford to send their children to high-quality schools, this can lead to a better education level for more people, which in turn leads to better job opportunities for more people.

3.4.4 Location and access to opportunities

Key with BNG is to use the physical (housing) to restructure society, by involving people in the process, diversifying options and choice, and providing housing close to social and economic amenities.

The desirability of house/asset and sense of attachment to area, beneficiary access to amenities and opportunities, time and costs of accessing services, and density and achievement of mixed-income and mixed-race attainment all provide an indication of the attainment of spatial restructuring and of sustainable human settlements.

Desirability of house/asset and sense of attachment to area

The findings of a cost-benefit analysis (CBA) by the SHF (2009) revealed that the location and density of affordable housing make big differences to the overall costs and benefits of housing to South African society over time. Housing that is well located in urban centres, even though it costs more to build (because of higher land prices), has more benefits for society and costs less over time than much cheaper housing on the periphery. Cheaper housing on the periphery appears to cost less, but when all costs and benefits over 40 years are counted, it proves more expensive to society

(SHF, 2009).

If it had not been for government subsidy housing, home ownership would have been out of reach for low-income earners. Through home ownerships, families are given an opportunity to prove themselves and to become permanent members of their communities.

The degree of change of the desirability of these location components, as reported by housing beneficiaries, is shown in table 3.21.

Table 3.21: Degree of change in desirability of location post-housing assistance

Component	n	Major decrease	Some decrease	Unchanged	Some increase	Major increase	TOTAL
Sense of attachment to area	780	4%	10%	27%	40%	19%	100%
Spatial integration of community	777	4%	10%	45%	32%	9%	100%
Accessibility to employment	785	6%	10%	62%	16%	6%	100%
Quality of life improvement	789	5%	9%	29%	39%	18%	100%
Density of residential establishment	778	7%	16%	53%	19%	5%	100%
Income generation ability	785	4%	8%	73%	11%	4%	100%
Time at home because of more/less time spent travelling	784	5%	9%	62%	15%	9%	100%
Income available for luxury items	786	8%	10%	68%	9%	5%	100%
Housing quality	787	10%	12%	22%	33%	23%	100%

Source: Kayamandi beneficiary survey, 2010

More than half of the beneficiaries reported that they had experienced an increased sense of attachment, better quality of life and improved housing quality post-housing assistance. Large improvements in spatial integration of communities were noted as well as in density, time at home, and accessibility to employment. Though income generation has generally been reported as being unchanged post-housing assistance, 15% of households reported a increase in income generation ability.

Beneficiaries reported that if the property market was open and they had a choice of area, their current location would mostly be rated as being somewhat desirable or very desirable. Slightly less than a quarter of beneficiaries revealed that their location is undesirable. See table 3.22.

Desirability in the RDP and BNG regimes is relatively the same, although RDP beneficiaries reported larger ratings of 'very desirable', while BNG regime beneficiaries reported a larger degree of 'somewhat desirable'.

Table 3.22: Degree of desirability of current location if there was free entry into the property market with complete choice of location

Desirability	Percentage
Very undesirable	5%
Undesirable	19%
Neither desirable nor undesirable	15%
Somewhat desirable	45%
Very desirable	17%
Total	100%

Source: Kayamandi beneficiary survey, 2010; n=769

Besides location, beneficiaries' assessment of the desirability of the house/asset provides an indication of the degree to which sustainable human settlements have been created.

Many beneficiaries indicated that until now they have not benefitted or received any life-changing components from housing assistance. Major disadvantages noted from housing assistance relate to the quality of the house, which is poorly built, its small size, which is not suitable for human settlement, and the long waiting periods.

Other disadvantages include:

- ◆ Service delivery is poor and in many cases electricity was not installed, and toilets were not connected as informed.
- ◆ Housing projects are poorly located.
- ◆ Threats are received from contractors when complaints are lodged.
- ◆ Limited to no finishings – such as plastering, painting, varnishing doors – are provided, which makes maintenance high.
- ◆ Locals are not favoured for jobs.
- ◆ Insufficient inspection takes place.
- ◆ There is no municipal complaints desk or action to deal with complaints
- ◆ There is no consistency. Some beneficiaries received better-quality houses within the same project
- ◆ There is limited or no consultation with beneficiaries, with resultant limited say in selection of location of houses, layout, size, etc.
- ◆ Some beneficiaries feel that other beneficiaries are abusing their privileges by selling their homes.
- ◆ Many beneficiaries in different projects reported that all the houses in the project had the same lock/key which makes safety an issue. There is also a lack of security and burglar bars.
- ◆ There are no airbricks.
- ◆ Doors/windows are unstable.
- ◆ Non-South Africans such as Nigerians are taking over subsidy houses

- ◆ The processing of bonds is slow.
- ◆ Land and planning for other social amenities are inadequate.
- ◆ Beneficiaries do not take their own livelihood into account after assistance and expect government to do everything.
- ◆ There is insufficient communication from ward councillors.
- ◆ Beneficiaries of social housing are not aware that they are obtaining assistance and want to know in which way they are assisted. Many are not aware that they are government subsidy beneficiaries.
- ◆ A subsidy is required for fixing and maintaining houses.
- ◆ Payment for services is expensive.
- ◆ Lack of proof of ownership and delays in attaining title deeds are frustrating.
- ◆ owing to free assistance there is no sense of pride. There is also a lack of aspiration of beneficiaries to improve their situation
- ◆ Yards are too small with limited space for improvements/extensions.
- ◆ Refuse removal is inadequate.
- ◆ Social housing beneficiaries state that rules are too strict and obtaining access for visitors is difficult.

However, advantages and life-changing components include:

- ◆ A yard and a roof over their heads with a permanent brick structure has provided dignity, pride, shelter, and sense of attachment and a place to call home.
- ◆ Health status has improved.
- ◆ There is a new social dimension with a better social environment and greater safety.
- ◆ Lower service rate payments are lower because of being registered as indigents.
- ◆ They now have access to basic services (water and electricity) and free basic services
- ◆ Electricity and water enables doing laundry and studying at night
- ◆ The house provides beneficiaries with an opportunity to have a home-based business.
- ◆ The new location assisted greatly with finding employment, even though the taxi fare is expensive
- ◆ It provides a better environment than the squatter camp with no more freezing cold winters, improved quality of life and improved feelings of safety
- ◆ There is more peace and less crime
- ◆ Full ownership means they can extend and spend on improvements if they wish.
- ◆ They gain independence from the family.
- ◆ It has enabled the creation of a legacy for their children.
- ◆ It provides safety and protection from shack fires.
- ◆ It helps relieve poverty and takes away the stress of not having shelter.

The reported needs of beneficiary households are:

- ◇ Renovations and maintenance of the house.
- ◇ Proper water inside the dwelling with a proper drainage and sewerage system.
- ◇ Employment creation.
- ◇ Bigger more beautiful houses with extra rooms.
- ◇ Furniture and appliances.
- ◇ Reduce rent (social housing) for pensioners.
- ◇ Reduce water and electricity costs.
- ◇ Ensure constant and reliable water supply that is safe for drinking.
- ◇ Indicate/mark of property boundaries.
- ◇ Provide proof of full ownership of the house (title deeds) so that extensions can be undertaken.
- ◇ Provide air bricks for ventilation.
- ◇ Build proper house foundations.
- ◇ Set up a place to operate business as opposed to being forced to operate from home.
- ◇ Provide for subdivision of rooms.
- ◇ Improve the quality of housing.
- ◇ Introduce a social grant for grandparents.
- ◇ Have a central computer/training centre with Internet connectivity.
- ◇ Have working electrical sockets.
- ◇ Remove 'banning' of home businesses so that people can make money.
- ◇ Make land parcels larger.
- ◇ Adopt a four to five year plan before increasing rental rates (social housing).
- ◇ Put burglar bars on windows/doors.
- ◇ Provide a safe communal braai/entertainment/playground area.
- ◇ Houses should be more aesthetically pleasing.
- ◇ Provide a crèche/school and clinic within walking distance.
- ◇ Set up skills transfer programme and SMME training in order to start own business and employ others.

The needs of settlements reported by beneficiaries are:

- ◇ Tar or pave access roads to the settlement with street lights.
- ◇ Attend to the stormwater drainage and sewerage systems.
- ◇ Provide social amenities: healthcare facilities, community halls, churches, schools/crèches, playgrounds/amusement/recreational parks/areas for children and youth.
- ◇ Ensure that shopping complex/malls or economic opportunities are located nearby.
- ◇ Educate the youth and ensure educational facilities such as libraries and access to life skill and training workshops.

- ◇ Include police stations with 24-hour policing to ensure safety and security for residents.
- ◇ Install water and electricity with proper functioning basic services.
- ◇ Raise awareness among the youth of existing youth facilities.
- ◇ Create walkways or paths for pedestrians.
- ◇ Create waste disposal areas.
- ◇ Address drug and alcohol abuse among the youth.
- ◇ Provide business incubators.
- ◇ Assist with availing/accessing loans for those who want to extend/renovate their homes.
- ◇ Plant trees in the settlement.
- ◇ Remove illegal people without passports who live in the settlement.
- ◇ Improve communication with tenants (social housing).
- ◇ Provide communal land urban farming such as vegetable gardens.

Access to economic opportunities, infrastructure, and social amenities

Linked to the desirability of location is proximity to areas of opportunity and social amenities.

The average location split⁵³ of the housing projects is as follows:

- ◇ Infill: 28%
- ◇ Integration: 28%
- ◇ Outskirts of town: 36%
- ◇ Middle of nowhere: 8%

The majority of **social** housing projects are infill or integration and within major centres.

Approximately 8% to 10% of the projects evaluated are not well located. They are situated in poor communities in remote locations (40 km or more from the nearest economic centres), isolated from major developments, and with limited or no means of accessing services and amenities. There are few distractions, entertainment facilities or pursuits for beneficiaries in these isolated communities. Such projects are not conducive to sustainable settlements and restructuring aims.

Slightly more than one third of projects are situated on the outskirts of towns, although still with reasonable access of opportunities. More than half of the projects are considered well located and are infill or integration projects. Well-located projects are:

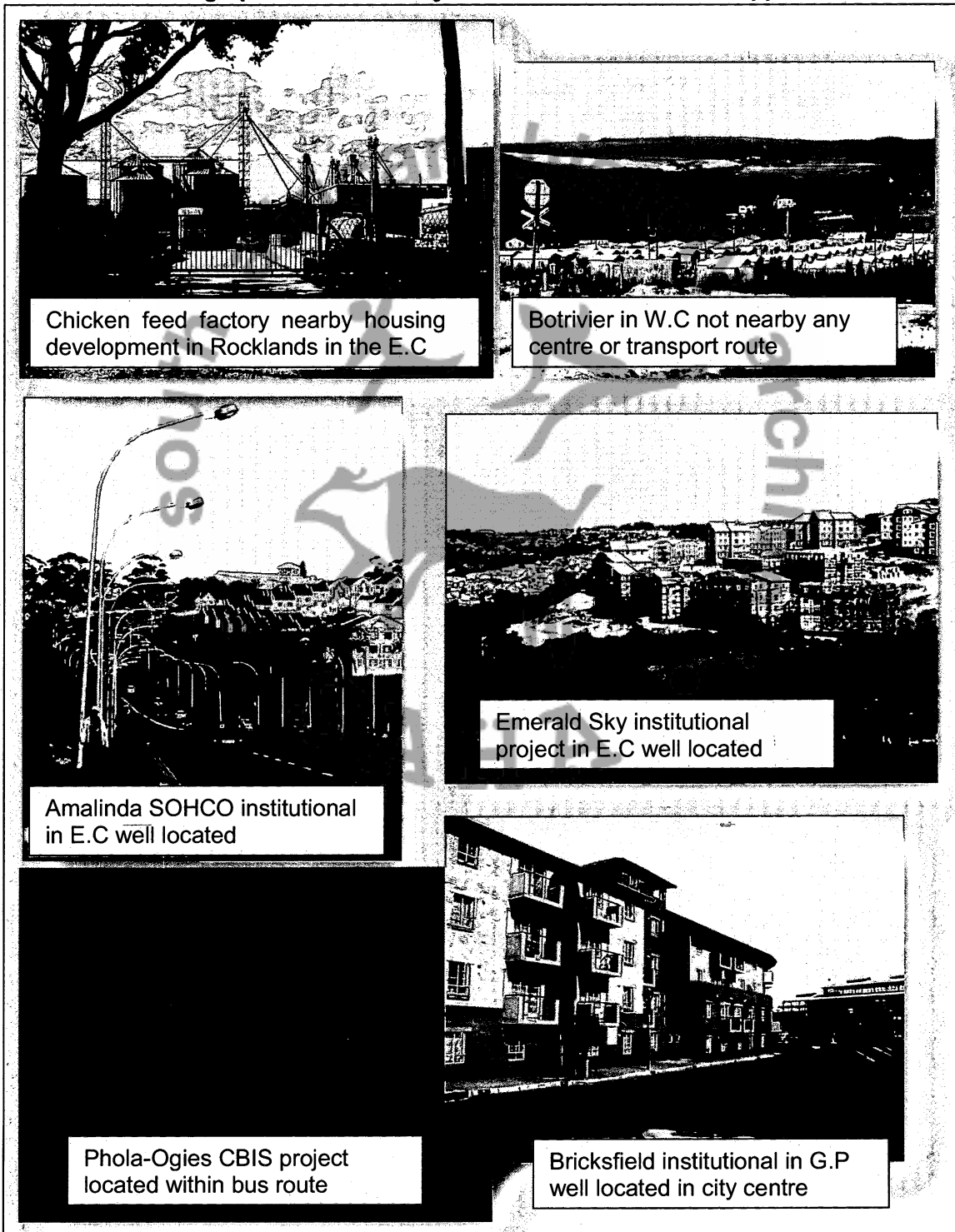
- ◇ Mostly located within 5 to 10 km of social amenities
- ◇ Located on main roads where taxis and buses operate, and some are close to rail transport
- ◇ Located relatively near employment opportunities
- ◇ Have access to social amenities: community halls, clinics, hospitals, police stations, schools
- ◇ Situated near middle-income areas, and sometimes integrate old black and white townships

⁵³ Source: Municipal project specific questionnaire and confirmation on the ground through project evaluation sheet; n=64

- ◆ Near industries/major farms/mining activity
- ◆ Near CBDs or nodal points
- ◆ Near business/economic/commercial/industrial centres

Photographs 3.4 below provide an indication of desirability of location of projects in relation to employment opportunities.

Photograph 3.4: Desirability of location and access to opportunities



These economic activities were observed near well-located projects:

- ◆ Abattoir
- ◆ Agricultural packaging and processing mills (seasonal employment)
- ◆ Brick making
- ◆ Business areas within economic nodes: motor dealerships, restaurants, services, etc
- ◆ Civil engineering industries
- ◆ Correctional services
- ◆ Farming (chicken, cattle and fruit)
- ◆ Fish markets
- ◆ Government departments/offices
- ◆ Health-sector employment opportunities in major government hospitals
- ◆ Industrial activities
- ◆ Mining activities
- ◆ Miscellaneous/informal: motor car repairs, car spares, steel works, chicken sales, hardware stores, hair salons, dress makers, fruit and vegetable sellers, mechanics, spaza shops
- ◆ Motor dealerships and/or transport/freight companies
- ◆ Near ports/harbours with related employment opportunities
- ◆ Near tourism regions (seasonal employment opportunities)
- ◆ Nurseries and/or wood mills
- ◆ Public works service centres

While the location of settlements is often still on the outskirts of town, **social** housing is a key improvement and promotes integration and equality. Certain transformation is taking place, and some low-income areas are being developed close to higher-income areas. It will take time to allay fears, and break down the 'not in my backyard' syndrome, but progress is being made. Income still plays a major role in the current state of housing distribution. More land needs to be made available in economic active areas to further transform the apartheid structure. The geographical distribution of wealth, however, has changed somewhat, and economic opportunities are spread across larger areas.

Beneficiaries reported changed in levels of access to infrastructure is shown in table 3.23.

Table 3.23: Change in access to infrastructure

Access to infrastructure		Pre assistance	n	Post assistance	n
Access to piped water	No access	16%	786	1%	792
	Inside dwelling	16%		48%	
	Inside yard	38%		43%	
	Communal tap	30%		7%	
	Total	100%		100%	
Access to electricity	No access	46%	783	8%	791
	Inside dwelling with meter	15%		16%	

Access to infrastructure		Pre assistance	n	Post assistance	n
	Inside dwelling prepaid	36%		76%	
	On stand not dwelling	2%		1%	
	Total	100%		100%	
Access to toilet facilities	None	10%	769	1%	776
	Pit latrine	54%		10%	
	Flush toilet	36%		89%	
	Total	100%		100%	

Source: Kayamandi beneficiary survey, 2010

Infrastructure access post-housing assistance has improved drastically. Hardly any differences in access to infrastructure are observed between the RDP and BNG regime beneficiaries.

Access to facilities and services (F&S) is shown in table 3.24 below.

Table 3.24: Access to facilities and services

Facility and service	Within same settlement	Within walking distance in same area	Within reach with transport daily accessible	Not nearby not able to travel to and fro daily	No proximity unable to make use of F&S	Total
Primary education	36%	49%	14%	1%	0%	100%
Secondary education	23%	54%	19%	4%	0%	100%
Health: mobile clinics or clinic	28%	42%	26%	4%	0%	100%
Hospital	1%	18%	72%	9%	0%	100%
Social: MPCC/hall	29%	37%	24%	5%	5%	100%
Police station	10%	44%	40%	6%	0%	100%
Park / playground	21%	38%	28%	3%	10%	100%
Library	8%	35%	46%	5%	6%	100%
Telephone (landlines)	34%	23%	23%	6%	14%	100%
Cellular reception	92%	4%	3%	0%	1%	100%
Bus rank/route	35%	38%	13%	3%	11%	100%
Minibus taxi rank/route	55%	38%	3%	0%	4%	100%
Supermarket/ shop	8%	46%	40%	6%	0%	100%
Small shop or spaza	74%	26%	0%	0%	0%	100%
Street market	55%	35%	8%	2%	0%	100%
Place of work	4%	28%	64%	4%	0%	100%

Source: Kayamandi Municipal project specific survey and project evaluation confirmation on the ground; n=78

All projects have access within walking distance to a small spaza shop. Transport is mostly accessible, with at least 93% of projects being located on a minibus taxi route. Primary and secondary education are available within walking distance to beneficiaries from 85% and 70% of projects. Lastly, nearly 32% of projects are at least within walking distance of a place of work, while 96% of beneficiaries in projects are at least within daily reach with transport to places of work.

Many settlements however are not yet considered sustainable as they mostly entail mere raw housing, not linked to any social amenities, which still creates a problem for communities because they have to travel far for those amenities. To improve this one needs to revisit beneficiary communities and construct some of the most needed social amenities, for example clinics, land for churches and business space, and try to make settlements more functional.

However, sustainability has mostly been a goal over recent years. In the first decade of housing delivery more single residential units were built. The focus is now on maximising the resources and infrastructure. Some housing subsidies recently include double-storey buildings to increase density.

Change in time and cost to destinations

Shorter transport distance is related to shorter transport time with lower transport costs, lower infrastructure costs, and lower pollution costs. All of these impact on the creation of sustainable human settlements.

The degree of change in **costs** occurred by beneficiaries in accessing facilities and services brought about by the move to current dwelling, that is, post-housing assistance, is shown in table 3.25.

Table 3.25: Change in costs incurred to access facilities

	n	Major decrease	Some decrease	Unchanged	Some increase	Major increase	TOTAL
Educational facilities	780	9%	12%	54%	14%	11%	100%
Health facilities (clinics/hospitals)	781	9%	15%	54%	12%	10%	100%
Social facilities (church, library, parks)	778	10%	10%	61%	12%	7%	100%
Public transport	777	9%	15%	49%	18%	9%	100%
Super market/grocery shop	777	9%	13%	51%	16%	11%	100%
Place of work	774	9%	9%	69%	10%	3%	100%
Urban/economic opportunities	756	8%	13%	65%	10%	4%	100%

Source: Kayamandi beneficiary survey, 2010

Beneficiaries have generally incurred unchanged costs to access facilities post-government housing support. However, for some household beneficiaries, decreased costs in accessing these facilities have been noted:

- ◆ Educational facilities: 21%
- ◆ Health facilities: 24%
- ◆ Social facilities: 20%
- ◆ Public transport: 24%

- ◆ Super market/grocery shop: 22%
- ◆ Place of work: 18%
- ◆ Urban/economic opportunities: 21%

For these household beneficiaries, decreased costs of accessing facilities have vast impacts, related to better health (because of improved cost of accessing), decreased expenditure with increased income for savings and/or other expenditures, etc.

However, another unintended consequence of housing delivery is that for some household beneficiaries increased costs are incurred in accessing facilities.

The degree of change in **time** taken to access facilities and services brought about by the move to the current dwelling that is, post-housing assistance, is shown below in table 3.26.

Table 3.26: Change in time incurred to access facilities

	n	Major decrease	Some decrease	Unchanged	Some increase	Major increase	TOTAL
Educational facilities	779	12%	20%	42%	18%	8%	100%
Health facilities (clinics/hospitals)	778	13%	24%	39%	17%	7%	100%
Social facilities (church, library, parks)	776	11%	17%	47%	18%	7%	100%
Public transport	778	12%	21%	47%	13%	7%	100%
Supermarket/grocery shop (eg Spar)	775	11%	22%	43%	19%	5%	100%
Place of work	770	5%	9%	68%	12%	6%	100%
Urban/economic opportunities	756	6%	17%	61%	12%	4%	100%

Source: Kayamandi beneficiary survey, 2010

Again, beneficiaries mainly reported that time to access facilities had remained unchanged post-government housing assistance.

It is unlikely that government housing assistance is able to improve costs and time to access facilities for all households. Decreased time in accessing facilities has been reported by these percentages of household beneficiaries:

- ◆ Health facilities (clinics/hospitals): 37%
- ◆ Educational facilities: 32%
- ◆ Public transport: 33%
- ◆ Super market/grocery shop: 33%
- ◆ Social facilities (church, library, parks): 28%
- ◆ Urban/economic opportunities: 23%

- ◆ Place of work: 14%

Again, another unintended consequence of housing delivery is that for some household beneficiaries increased time in accessing facilities has occurred.

BNG regime beneficiaries to a larger degree revealed that time and cost of accessing facilities and services remained unchanged or decreased slightly more in comparison with RDP regime beneficiaries. This shows improvements in location in relation to time and costs incurred in accessing facilities and opportunities.

Increased density and mixed income and race

Density, mixed-income and mixed-race achievements are all associated with spatial restructuring and attainment of sustainable settlements.

Government policies have begun to acknowledge the limitations of ongoing patterns of unequal development. In 2003, the state began a process of self-examination after the first decade of democracy. Government's Ten Year Review refers to the need to place more emphasis on overcoming the spatial disjuncture between home and work by promoting more compact designs that increase residential densities and reduce long-distance commuting (Napier et al, n d).

Project evaluations identified the degree of desirability with regards to density to determine whether medium to high density is promoted without overcrowding. 'Perceived density' refers to the level of density which people feel an area has and is dependent on the individual and his/her background culture and on the nature of the built-up area. Crowding is closely linked to density and refers to too many people living or working in a room, dwelling, neighbourhood, or on a plot. There is an important difference between crowding and density: it is possible to have high-density housing without crowding (such as with social housing). The following with regards to density of subsidy housing settlements were noted:

- ◆ Many older projects have lower density, but lack strategic development or integration without any apparent layout planning.
- ◆ Many more recent projects promote medium density without overcrowding and show well-planned street patterns and integrated communities.
- ◆ Many housing settlements are not overcrowded in comparison with nearby informal settlements.
- ◆ Some settlements have high building density and overcrowding with virtually no space in between housing. See photograph 3.5 below.

Photograph 3.5: Example of high-density single residential housing

- ◇ In many projects, medium density is provided, but by virtue of additional structures being built next to dwellings and with these structures or even rooms in the house being rented out, more people are brought into the settlement than were intended, which is causing overcrowded occupation of settlements. That is, because of additional informal dwellings and backyard shacks, the result is higher building and occupancy densities with overcrowding. See photograph 3.6 below.

Photograph 3.6: Example of overcrowding from additional structures

- ◇ Social housing projects generally have higher building densities than their surroundings and other subsidy housing programmes. However, social housing projects often incorporate open space areas in their developments. Inspections and surprise visits are undertaken regularly in social housing projects to ensure that occupancy density or overcrowding does not occur.
- ◇ Owing to more active beneficiary involvement in PHP projects, PHP projects have fewer additional secondary dwellings, with resultant less overcrowding.
- ◇ Housing projects in rural areas have lower densities because of availability of land. See photograph 3.7 below.

Photograph 3.7: Example of lower densities in rural areas

Density is one of the most important indicators of and design parameters of sustainability in the field of housing and human settlement planning and development. Density is critical for the assessment of the distribution of land, as well as infrastructure and service delivery with financial implications.

In more recent projects, medium building density (number of dwelling units per area) is being promoted, although the occupancy density (number of people per dwelling unit) is not addressed sufficiently. Beneficiaries are not being consulted, and no matter the size of the beneficiary household, the same size of housing is provided.

Economic factors influenced by density include:

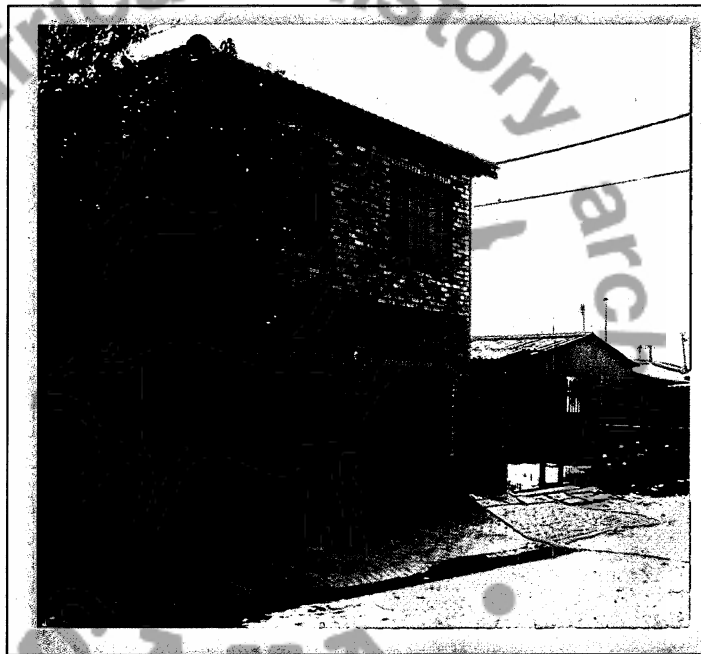
- ◆ Health and safety
- ◆ Cost of bulk infrastructure and service delivery
- ◆ Affordability for end-users
- ◆ Public transport thresholds
- ◆ Local economic development thresholds

The following regarding the degree of creating mixed housing typologies from project evaluations—and municipal interviews were noted:

- ◆ The majority of housing subsidy projects have the same type of brick structures within the same mono functioning areas, the only exception (occasionally) being a change in exterior paint colour or in layout (not strictly following grid-like pattern).
- ◆ PHP projects show a greater mix in housing types and diversity because of greater beneficiary involvement during the construction phase.
- ◆ Social housing all looks the same, with the occasional exception of some social housing offering one or two rooms at slightly different rentals. Only a small number of beneficiaries in more recent projects obtained rent-to-buy options.

- ◇ In more recent BNG projects, a mixture of tenure type is noted with some full ownership and some bonded options, which depicts a mixture of income groups. The houses have more than merely one look and some project extensions have a mixture of tenure and finishing's. As far as possible attempts are made to give every project unique-looking houses that reflect different income groups.
- ◇ Some projects show housing type differences because of unique upgrades, expansions and renovations undertaken by beneficiaries.
- ◇ In some settlements there appear to be older, larger and more upmarket housing units (probably built by households with higher income), among government subsidy housing. See photograph 3.8.

Photograph 3.8: Example of housing type differences



Besides mixed typologies and housing types, housing delivery is focused on integrating and mixing communities along racial and income lines. Effective integration leads to improved social mobility, long-term improved employment chances, and better educational and health outcomes for all.

Project evaluations and interviews (municipal and beneficiary) revealed the following regarding mixture of race:

- ◇ The majority of projects cater for the African black racial group, though some provide for mixed cultural groups.
- ◇ Some projects provide for a mixture of African black and coloured racial groups.
- ◇ Some projects cater purely for coloureds.
- ◇ One white family was catered for in one of the projects.
- ◇ Social housing projects have a greater degree of catering for a more rainbow nation, and

many social housing projects cater for blacks, coloureds, whites and Indians.

Project evaluations and interviews with municipalities and beneficiaries exposed the following regarding mixture of income:

- ◆ Housing settlements cater more for a mixture of income groups than mixture of race.
- ◆ Many of the mono-functional housing typologies do not offer a mixture of income and cater mostly for low-income unemployed households.
- ◆ Some projects have been observed with a mixture of income in that unique housing additions and renovations reflect different income groups. Some beneficiaries in these projects obtain a good stable formal income.
- ◆ More recent BNG regime projects cater for a good mixture of income groups and provide low- and medium-income housing with bonded houses and normal subsidy housing.
- ◆ The income levels catered for by social housing projects differ, and a mix of income levels is provided for.

Increased mixed-income developments, as advocated in the BNG policy, are attempts at addressing mono-functioning areas and poorly located housing developments in relation to economic opportunities. However, few developments have been undertaken with the mixed-income approach and those that have are too recent in order to evaluate or understand the impact on spatial restructuring.

Nonetheless, the concept of inclusionary housing and an increase in the number of developers of higher-income residential projects investing in subsidy housing have been emerging in the last couple of years with greater integrated higher- and lower-income households within the same developments.

Evidence nonetheless suggests that urban land ownership is changing to incorporate an African middle class. Viruly (Urban LandMark, 2007c) states that broker estimates suggest that between 20% and 30% of property sales are to black households. Increased mixed racial suburbs are also being noted. The creation of an African middle class, able to afford to leave the townships, did not happen overnight. The Absa residential property market database for South Africa suggests that a black middle class has sustained demand for properties in former 'whites-only' residential areas.

Besides mixed typology, race and income, the location of housing plays a major role in spatial restructuring and creating sustainable human settlements. The bid-rent principle clarifies why informal townships are often located on low-valued urban peripheries. If they were more centrally located, and close to economic opportunities, they would be more exposed to eviction from competing higher-return land uses. The same bid-rent principle thus explains why housing programmes have delivered the majority of houses on the urban periphery over the last sixteen

years (Urban LandMark & UN Habitat, 2008). For the government to deliver on free housing to the poor, it had to locate houses where land was relatively cheaper.

However, as cities expand and grow, areas that were once on the periphery are becoming more centralised because of the creation of new nodes. For instance, Mamelodi and Soweto in Gauteng find themselves with greater access to urban amenities.

Housing has not adequately succeeded in achieving the particular outcome of spatial restructuring and integration. However, attempts are increasingly being made to locate housing within access to opportunities, amenities and facilities, and thereby to contribute to residents' quality of life. For some, housing delivery over the last 16 years has provided more (and better) public and private services, enhanced the economy, boosted the sense of community and attachment to place, reduced mobility and costs, provided greater residential stability, led to improved upkeep of houses, properties and gardens (for those who are financially able), added to educational and work outcomes, and increased access to facilities and connectivity with other places.

Many departments are responsible for the delivery of sustainable human settlements, so a central decision-making structure around the location of settlements is required. Even though in recent years the Department of Human Settlements has put in place a number of intergovernmental agreements with other government departments (and parastatals) to assist with the identification of land in their possession and future settlement development planning, alignment and coordination and implementation remain daunting.

Since BNG, numerous interventions have been suggested to socially, spatially and economically integrate South African cities and towns. Because of the latest intervention, namely the Department of Human Settlements' response to Government's Outcome 8, one should start to see acceleration in the delivery of serviced sites (as well as concurrent construction of houses and other housing units), mainly in informal settlements. The top structures for these sites may come years later. The recent informal settlement upgrading subsidy allows for the needs of a whole community in an existing settlement to be addressed, not only the qualifying households. If a squatter community is settled on suitable and well-located land, this instrument allows them to remain there and to become formalised. That is, the greater drive to implement this instrument will enable increased spatial restructuring.

Another direct land intervention is the government-funded agency known as the 'special purpose vehicle' (SPV), which is responsible for identifying, acquiring, assembling, holding, managing and disposing of land (mainly state land) for promoting housing development (Department of Housing, 2006 in Napier et al, n d).

Lastly, Cosmo City, a flagship BNG project, is a desirable place to live, with numerous secondary property market transactions taking place among non-government subsidy residents and property prices being on the increase. BNG developments throughout the country promise similar outputs, and suggest the possibility of an integrated future for South African cities with the prospect of overcoming racial and socio-economic boundaries entrenched during the apartheid period.



4. RECOMENDATIONS TO IMPROVE ECONOMIC IMPACT

The study is concluded with recommendations to maximise positive economic benefits and to minimise some of the often-unintended negative economic consequences in order to improve future investment in the development of sustainable human settlements and to maximise economic spin-offs.

Many of the recommendations are not new, but are issues that have still to be addressed adequately, while some are based on best practice drawn from many parts of the world, and from replicating successful practices in enhancing economic outcomes locally.

These sub-sections form part of this section:

- ◆ Maximise local job creation
- ◆ Enhance skills transfer
- ◆ Improve consumer education
- ◆ Enhance income generation post-housing assistance
- ◆ Improve quality, building materials and the use of renewable resources
- ◆ Improve municipal service delivery and income generation
- ◆ Improve location, density and access to economic opportunities
- ◆ Address property market and ownership
- ◆ Enhance departmental collaboration and coordination
- ◆ Speed-up delivery to address backlogs
- ◆ Improve monitoring and evaluation and HSS database
- ◆ Undertake continued research and development

4.1 Maximise local job creation and support for SMMEs and B-BBEEs

One of the key recommendations for maximising local job creation is to ensure, as far as practically possible, that opportunities created lead to employment of local residents. Labour-intensive employment opportunities during construction should be targeted at local residents and people from the surrounding townships.

Non-locals should be hired only when specialist skills are required that are not available locally, and local businesses cannot be created to provide such skills. These aspects should receive priority:

- ◆ Labour-based construction methods should be used whenever practically possible.
- ◆ Local residents and communities should be employed, wherever possible.
- ◆ Local construction companies should be used whenever possible, especially for subcontracting work.
- ◆ Local suppliers should be utilised if possible.

The use of local labour should be approached in such a manner that large numbers of residents benefit from this action, rather than only a select few.

Fair employment criteria should be used in sourcing employment from the surrounding area, to avoid the situation in which many unskilled and unemployed people from the surrounding area are not employed during construction, which can cause potential conflict.

As successfully implemented in some municipalities, in anticipation of a housing delivery project, the municipality should set up a database of skilled and unskilled labourers that can be utilised by housing contractors. The municipality should insist on ploughing back some of the income generated to the community, for instance 1%. If, however, there is not enough time to undertake a skills register or a labour desk for local unemployed people, employment could be undertaken through assistance from the ward councillors and local NGOs and community leaders.

The opportunity for employment should be communicated in a fair and transparent manner, while being sensitive to the possibility of creating false expectations. Or else a situation is likely to occur whereby unemployed persons whom are willing and able to be employed where not employed which could lead to conflict. In the event of there being an excess of local unemployed persons, it is suggested that certain measures for selection be implemented, such as:

- ◆ Employing one person per household so that as many households as possible can benefit from the employment.
- ◆ Level of skills.
- ◆ Previous construction experience.
- ◆ Employment record.

Only if, there are not enough willing and able unemployed persons locally, employment from other nearby neighbourhoods should be sought. Commuting needs to be implemented to avoid large workers camps locally.

Furthermore, since termination of temporary employment is unavoidable, a process of social planning should be initiated during the construction phases. Local economic development units of municipalities and the developers could be mindful of this, and look at developments and opportunities in the local economy that could be made available after the construction phases have been completed.

The importance of local job creation is often overlooked, as housing delivery is not only about providing houses. A policy compelling contractors to follow the EPWP (or similar set of criteria purposefully developed for government housing programmes) and to use local labour should be established. This would be the only successful means of ensuring that local labour gets utilised, efficiently, effectively and within the requirements.

The EPWP has been implemented for some time, and the Department of Human Settlements housing delivery programmes are part of the scope of the infrastructure sector in line with the EPWP, although EPWP procedures are not always followed when a new housing project is undertaken. EPWP procedures were never officially recorded, as many departments were not aware that these are requirements. This is due to a lack of coordination in council, and only some provincial departments have registered with the Department of Public Works.

From a job creation perspective, objectives and indicators that are critical to measuring labour-intensive housing construction programmes⁵⁴ include:

- ◆ Job opportunity (collected monthly)
 - ↳ Type and number of work opportunities disaggregated by gender, age and disability
 - ↳ Person years of employment created
 - ↳ Number of people exiting the programme
- ◆ Government expenditure (collected monthly)
 - ↳ Total expenditure per programme
 - ↳ Percentage of allocated budget spent
 - ↳ Total expenditure per work opportunity created
 - ↳ Training unit cost
- ◆ Training (collected monthly)
 - ↳ Number of people trained
 - ↳ Number of training days
 - ↳ Type of training and accreditation status
- ◆ Sustainability of employment (collected annually)
 - ↳ Number of people exited to employment
 - ↳ Number of people exited who secure employment within a year of exiting
 - ↳ Relationship between employment secured and training
- ◆ Project wage rate
- ◆ Public sector transformation (collected annually)
 - ↳ Percentage of departmental budgets committed to EPWP
 - ↳ Communication and coordination between departments
 - ↳ Expansion of service delivery
 - ↳ Quality of service delivery

There is a clear need for implementing the EPWP (or similar) in housing delivery projects. Though following the EPWP would probably be expensive, the trade-off is necessary for enhanced contribution to economic growth. The Department of Human Settlements need to learn lessons from

⁵⁴ Developed by the National Department of Public Works' Expanded Public Works Programme Unit.

other Departments, such as DEAT that have agreements in place with the Department of Public works and are strictly following the EPWP in all projects.

In order to maximise the number of job opportunities that any project should create, the job creation related Social Responsibility Programme criteria of EPWP, which the Department of Human Settlements are advised to adhere to or modify for applicability in housing construction, are:

- ◆ A minimum of 35% of the Project budget must be utilised for labour intensive wages.
- ◆ A maximum of 3% of the project budget shall be used for other wages.
- ◆ A maximum of 7% of the project budget shall be utilised for implementers fee (ie a set profit amount which in the case of housing delivery will limit contractors from maximising profits through minimising quality and will also limit other contractors from being bankrupted).
- ◆ A maximum of 3% of the project budget shall be utilised for administration costs.
- ◆ 90% of temporary job days must be reserved for local people.
- ◆ 40% of temporary job days must be reserved for women, 30% for youth (ages 16 to 35 years) and 3% for persons with disabilities.
- ◆ 50% of SMMEs used must represent enterprises with at least 70% of equity owned by HDIs.

The Department of Human Settlements should perhaps consider the development a **job creation strategy** to encourage labour-intensive practices during construction and housing maintenance. This strategy should include labour intensive targets (70% as postulated in BNG) which must be enforced, as well as the targets set by EPWP (or modified for housing delivery applicability). The strategy should provide details about onsite housing material production. Growth and support strategies for SMMEs and B-BBEEs in the construction sector must be provided. Methods for improved monitoring the implementation of labour-intensive methods also require attention. The strategy should consider the creation of district-level SMMEs, among others, to develop and supply locally manufactured materials for housing projects. Once created, these entities require support from housing delivery projects so that white elephants do not result. The strategy should enable better regulation of appointments and of minimum payment to sub-consultants. A decision-making tool to simplify the selection process of projects and contractors in terms of its impact should be considered.

For instance, to enable the use of local SMMEs and B-BBEE, larger projects should be broken down into more manageable delivery of units, as is currently the practice in some provinces. However, the projects should not be split up into too small delivery components, as the study results have revealed that the key to being profitable in low-cost housing is to construct high volumes. To prevent SMMEs and B-BBEEs being liquidated as a result of late payments, the establishment of a trust should or voucher system from which organised communities and SMMEs could access building materials should be considered.

The proposed job creation strategy should also address how to enable local purchasing. Key to

profit maximisation is not to purchase locally, but to negotiate the best deals nationally. Due to price competition, enforcing local purchases is a challenge. Local purchasing could however be improved through municipalities having closer relationships with industry role-players and providing assistance to contractors in order to source competitive material locally. Strict policies should be utilised to compel contractors to 'keep it local', from labourers to supplies/material purchases. Some degree of local purchases thus needs to be enforced on contractors in order to ensure that as many of the positive benefits as possible accrue to the local area.

4.2 Enhance skills transfer

With large-scale employment creation, albeit mostly temporary, potential for skills transfer with lasting economic effects could occur. Measures can be put in place to enhance the impact of skills transfer. Skills transfer is required to take place to ensure that local labourers are not being used merely as unskilled labourers.

To date, contractors mostly bring a core of skilled workers who train local labourers on the job. Skills training is thus mostly limited to in-service training during the project, on components such as bricklaying, carpentry, scaffolding.

Job training programmes for area residents may be necessary if local recruitment goals are to be achieved. Training should be concentrated on skills that are readily transferable to other employment opportunities in the local area to avoid people with skills leaving the area for work elsewhere. To improve skills transfer a training programme for local workers should be enforced. Ideally, a comprehensive programme for recruiting, hiring, training, orienting and counselling could be established. Such a programme has the added advantage of enhancing local hiring. Special training to prepare workers for jobs in the facility may be conducted by local and regional technical institutions, often with support from government. Training may reduce the project's competition with other local employers and need not be limited to specific projects.

For instance, during earthwork components of sites, training of workforce can start with training of artisans and plumbers and electricians, etc. Though the training would not be able to make fully fledged electricians, for instance, it should be able to ensure that a large component of the electrical required work can be undertaken by the trainee.

Again, it is advised that these principles of the EPWP (or similar) with regards to skills transfer are applied:

- ◆ Firstly, upon budget approval from EPWP, the social responsibility programme management deducts 5% of the total project budget for purposes of undertaking accredited training and this is administered separately through a process of engaging accredited training providers.
- ◆ A minimum of 2% of the Project budget shall be utilised for non-accredited training.
- ◆ Training person days must be equal to 9% of temporary person days.

Skills development targets thus must be clearly set out, as well as unambiguous procurement policies to guide the use of local labour and materials, etc.

Increased formal training programmes with certification need to be in place in all projects. However, the dropout rate on formal training programmes is high. Most leave to find a job to support families, and cannot afford to study full time. Short courses are thus recommended.

It is also advised that **PHP** projects be facilitated properly. A housing beneficiary cannot lay foundations, and put up a roof with limited skills and knowledge. A contractor has to do the elements that require skills and expertise, such as foundations, plumbing, wiring, the outside walls and the roof, for quality purposes. The beneficiaries can then do the basics, such as plastering, construction of the inside walls, and installation of cupboards.

As part of skills transfer, the research revealed that policies pertaining to housing are not clearly understood by all municipal housing officials. All officials involved in housing delivery, albeit at provincial or municipal level, must be continuously and fully informed and 'tutored' on existing programmes, policies, outcomes, strategies, targets, etc.

4.3 Improve consumer education

Improved consumer education is advised coupled with engaging more youth in workshops to educate them in contributing to the economy.

Consumer education is important, and beneficiaries should be educated in terms of the full value of their asset, as a house itself does not guarantee survival. Beneficiaries are given ownership of the stands that houses are built on. Some people do not value their houses, and do not collect their title deeds, and others rent or sell their house informally. Beneficiaries should be educated in maintaining their properties and encouraged to invest in their properties and gardens. The beneficiaries should view their newly obtained house as a long-term commitment and home for future generations.

Consumer housing programmes should be enhanced, and attendance at consumer education workshops should be a requisite for everyone. Proper consultation with beneficiaries is required. Beneficiaries must understand that they have to work to be able to pay the bills and put food on the table. Beneficiaries must understand the value of the unit. Beneficiaries should be encouraged to pay for services, so that the municipality can better their livelihood. The beneficiaries must be educated so that they are empowered to not become dependent on government handouts. Beneficiaries should be educated about responsibility. They should be taught how to maintain their houses properly and cost-effectively as a house needs continuous maintenance.

If proper consumer education is not provided, beneficiaries will continue to expect to be spoon-fed,

and assume that government will look after the house after they have moved in. People must start to take 'ownership' of their homes.

A manual could be supplied along with the keys to the house. This manual should explain aspects such as maintenance dos and don'ts, and provide information about the cost of building a house, and the recommended resale price, contractors' details and basic suggestions to ensure an educated and happy beneficiary, dos and don'ts of selling, formalities involved in legal sale, differences between legal and illegal sales, and their pros and cons.

Beneficiaries must be informed that the provision of free houses by the state is not sustainable. A perception has been created that the state 'owes' everybody a free house. This has dampened the intention of those who might be in a position to help themselves, and can only be reversed if ownership of their towns is to be assumed by communities. Funding allocations for community facilities should be increased. Municipalities must accept responsibility for maintenance of community facilities, but communities must assume ownership of facilities, which should result in less vandalism and lower maintenance costs, with higher resultant economic impacts.

Lastly, in the case of social housing institutions, it is suggested that an exit fund should be made available, because the beneficiary contributed to the 'welfare' of the SHI. Beneficiaries do not get anything when they move out of the project with the result that they don't even deregister meaning that that they cannot be supported by government housing in the future. Beneficiaries should thus be better educated on the reasons and need for deregistering. If they deregister, they should receive an incentive. This will also motivate them to deregister.

4.4 Enhance income generation post-housing assistance

There is a high level of unemployment in the communities supported by housing delivery projects. Permanent job opportunities must be created. Employment is the crux of creating sustainability. Government departments and the Land Bank need to come on board, and promote local economic development in these communities.

Post-housing assistance, some beneficiaries are able to improve their employment, but the employment status of many remains unchanged. To improve this, other than through increased skills transfer and improved identification of location in relation to economic opportunities, comprehensive, coordinated sustainable local economic development initiatives are required. This should especially be a requisite in peri-urban, small towns, and rural areas where employment opportunities are limited.

In **social** housing projects, economic opportunities should be infused, and business space provided on the ground floor of all projects. This holds numerous opportunities and benefits for beneficiaries. This should be a policy requisite.

To date, limited provision has been made for designated commercial areas such as market stalls and spaza shops as part of housing programmes. Beneficiaries currently convert houses to informal shops because of the absence of commercial areas. To improve this, areas for trade should be provided as part of the housing programme.

Business sites should be provided in all projects, as well as social infrastructure. These should be determined through community profiles and facilities audits to ensure appropriate targeting of facilities or business space created. Businesses and social facilities do not have to be established immediately or by the Department of Human Settlements, but space should be made available if a beneficiary should want to start a business later on. Space should also be provided for schools, clinics and social amenities (if they have not been built or are not available close by).

In terms of increased economic impact, more attention should be placed on creating cash flow than on the value of the assets. Other activities to be undertaken in an attempt to enable increased income generation:

- ◆ Inclusionary housing zoning: Laws should be revised to accommodate the needs of poorer households and emerging businesses, for example inclusionary housing zoning. This will require a greater degree of differentiation in types of zoning applied as well as increased and effective monitoring and enforcement.
- ◆ Upgrading of existing household rental: A programme that incentivises the development of new household rental should be implemented.
- ◆ Sub-letting: Households should be encouraged and supported to sub-let units in and on their properties. Good-quality backyard rental accommodation should be stimulated. In other words, the home creates an ability to generate an income. There is a reality of renting that needs to be supported. Many projects in Gauteng now have a room with a separate entrance that can be used for rental and income generation.
- ◆ Home-based enterprises: Households should be encouraged to use their houses as a base for entrepreneurial activity.
- ◆ Upgrade informal trading areas: Informal trading areas should be upgraded in a manner that promotes access to markets.
- ◆ Emerging business premises and support: Innovative models that provide premises for emerging businesses with appropriate business and linkage supports should be developed (Urban Landmark, 2007c).

Municipalities will remain the primary implementation agencies for job creation post-housing assistance, although various initiatives can be initiated by housing or brought to the attention of municipalities in which housing projects are being delivered.

The Community Economic Development (CED) approach is seen as being important. It is a community-based process that engages local communities to identify, implement and manage their

own solutions to local economic problems through the commercialisation of community-owned assets. CED is a process that increases and expands local ownership of assets and capital, and leads to increased retention and reinvestment of wealth through greater circulation of capital in the local market. Ultimately, CED activities seek to transform the second economy through community-owned pro-poor employment and wealth creation.

The objectives of the CED approach are to ensure that the community can serve their own needs and to create long-term improvements in living conditions. A particular opportunity is for the development of car-pooling cooperatives, where shared use is made of a vehicle to transport members regularly to and from town/work. A crèche cooperative could involve mothers rotating the duties of looking after the children of all the members for one day a week, thereby freeing up the remainder of the week to look for and take up employment opportunities.

Community gardens should also be considered more actively, coupled with skills training. The key to success of community gardens lies in equal adult resident ownership of the garden, a renewal of tradition that now includes women. That means that all receive equal 'garden use rights' once a year. These they buy and sell among themselves so that, for the first time, a price arises. Ownership brings a dividend, garden use rights, which means that all are willing to invest cash and unused labour. After the first year, they 'buy' their use rights for a figure below the ruling price of the previous year. In that way, the garden, run like a democratic property company, gains the income to manage and to maintain itself, with monies left over for further investment. That investment can be more than matched by equal member labour contributions. This formula can be applied to all jointly owned resources: grazing, irrigation, orchards, shops, workshops, markets, community banks or savings and finance schemes, etc. A settlement can then become a powerful, largely labour-driven, investment and resource management body.

Other than community gardens, community banks, car-pooling, etc, there are community economic development initiatives that are aimed at establishing income-generating activities. One of these is to establish a recycling depot or a buy-back centre. A lot of money is spent yearly on clearing up litter and illegally dumped rubble. This money could have been far better utilised on housing, and other socio-economic developments. Separating recyclable materials – glass, paper, metals and certain plastics – from the waste stream reduces the bulk of waste going to landfills, eases the strain on our natural resources, and helps to create employment in the informal and formalised waste reclamation sectors. By setting up local recycling banks or buy-back centres, scholars and household members can obtain vouchers to spend at shopping centres or on school needs. The recycling loop is complete only when materials that have been separated for recycling are processed and remanufactured into new products, which are then sold. Examples of community initiatives linked to recycling that could be undertaken locally include:

- ◆ Recycled outdoor plastic patio furniture
- ◆ Furniture from recycled materials
- ◆ Eco-friendly gifts and crafts from recycled materials

- ◆ Agriculture and landscape related inputs: mulch, compost, fencing, etc
- ◆ Recycled office supplies such as stationery and paper products

Other types of income-generating CED projects to be considered by municipalities include:

- ◆ Bakeries and sweets production
- ◆ Sewing and handicrafts
- ◆ Soap production
- ◆ Manufacturing of building materials and bio-degradable materials
- ◆ Bee-farming and honey production

Business incubator programmes could also be considered. An incubator can help to start up business and to survive the start-up phase. In incubators people are held accountable and are not left to their own devices. Incubators turn ideas into businesses as they can access funding and resources, assist with professional image and marketing, etc. In essence, an incubator is a big brother to a start-up business. There are several models, and some offer more than others, but the common denominator is business support.

The establishment and maintenance of an unemployment desk, with a skills register to support job placements, which includes a system whereby temporary placed workers are rated, is a cost-effective yet important starting initiative to assist with improving livelihoods. As an initial step, this could be linked to the Man on the Side of the Road (MSR) Project, which is aimed at linking registered members with work opportunities by providing clients with information about reliable people with verified skills.

Lastly, as noted from international experience, a **housing employment initiative programme** should be considered, which enables housing to 'open the door' to new opportunities. Such a programme assists residents in obtaining the skills and experiences necessary for successful employment. The goal is to help individuals enter careers that offer good wages and upward mobility. The programme could offer:

- ◆ Specialised career planning and job readiness workshops
- ◆ Ongoing weekly employment support groups
- ◆ Individual career counselling and coaching
- ◆ Ongoing computer training in commonly used computer applications
- ◆ Business communication classes
- ◆ Tuition assistance for qualified individuals
- ◆ Supportive services, such as transportation and childcare assistance (for qualified individuals)
- ◆ Referrals to community resources
- ◆ Assistance with job and internship placement
- ◆ Retention and advancement services

- ◆ Annual job fair and educational forum
- ◆ Summer youth programme for housing residents

For such a programme to be successful, partnering is required with educational institutions, business support organisations, community organisations, district or municipal one-stop centres (if available), etc.

4.5 Improve quality, building materials and the use of renewable resources

According to an article in entitled 'R58bn needed to fix govt houses' it is noted that the cost of rectifying and repairing badly built low-cost government houses is now estimated at R58-billion (Thabane zulu, the director general of Human Settlements as in www.property24.com, 2011). Accordingly the Department as still not managed to find a way to prevent companies responsible for building sub-standard houses from getting new contracts and he called for the establishment of a 'blacklist' that will name and shame companies and individuals involved in dodgy building practices. The development of such as blacklist should receive priority attention and should perhaps be done in collaboration with the Department of Public Works and the partnering EPWP Departments.

There should also be more focus on using building materials produced on site and utilising renewable energy sources such as solar panels to make houses more sustainable and economically viable in the long run. Little or no improvements have been made in building materials since 1994. Building materials used today for low-cost housing are similar to those used back in 1994, despite the obvious room for improvement in materials and systems.

Van Wyk (2010) states that building materials can be improved to ensure a better-quality house for a better living standard at the same cost, or lower. Research by the CSIR showed that through using innovative new building materials and methods, a 46% decrease in the amount of plumbing per unit, and a 50% decrease in energy use per unit can be achieved. This is crucial to decreasing service payments for beneficiaries. In addition, research showed that three units could be built with the same material mass as two units, meaning that through innovative technology and the same weight of building materials, an entire extra housing unit can be built.

A relatively large percentage of beneficiaries are about unit quality. Although poor quality and performance of government housing is due not only to contractors, but also to poor building materials, it is possible to deliver a good quality house within the budget provided by government, and too little money for the top structure is just an excuse (Van Wyk, 2010). By improving building materials and technologies, an even better house can be built.

The building sector supports extractive industries such as sand, rock, and iron-ore mines to obtain raw materials. These are non-renewable resources, and mining activities have detrimental negative impacts on the environment. Alternative building materials in the form of renewable materials are thus a possible solution. There is a trend towards 'growing' materials such as fibres and resin that

can be used in the fabrication of materials. Provincial projects could be developed to grow these materials with housing contracts or support agreements in place. This will create entire new industries that will stimulate the economy. Developing farmers in arid areas in South Africa can farm with resin plants to supply the manufacturers of building materials with raw materials. This will create an entire new value chain, which will generate additional employment and enable maximising economic stimulation.

Van Wyk (2010) suggests that housing units built by government should consist of at least 10% renewable materials. This should be strongly enforced, and contractors and builders should be penalised harshly if they do not adhere to these requirements.

Van Wyk (2010) revealed that research by the CSIR indicates that by using improved materials and better building technologies in housing foundations, one ton of concrete can be saved per unit. If the entire housing backlog of approximately 2.1 million houses is assessed, this amounts to 2.1 million tons of concrete that can be saved. A 5 000-litre water tank erected next to every house will save 10.5 billion tons of water on just the backlog housing. South Africa is a water-scarce country, and a saving of that amount of water would have a tremendous impact on water availability and service delivery in future. Government should invest in this, as it is in their best interest. More than two million water tanks would be expensive, but they would save money elsewhere, such as water purification works. Interventions such as these would add value to the development, and to the lives of the beneficiaries.

Continued research on new technologies and advances in existing and new (alternative) building materials certified through Agrément South Africa⁵⁵ should be supported. Research is needed in particular in building materials and new technologies to improve the quality of houses.

4.6 Improve municipal service delivery and income generation

Housing developments will lead to increased pressure on infrastructure in a new node/area. This cannot be mitigated, although proper planning must be undertaken. Owing to the severe size of the housing developments, the municipalities should inform authorities and bodies involved in the supply of bulk services (such as DWAF and Eskom) of the proposed geographic location of developments, so that they can ensure they are incorporated into their demand projections.

Bulk infrastructure upgrades are expensive. Research is needed to find more cost-effective solutions to infrastructure upgrades without impacting negatively on the existing infrastructure.

The large service payment arrears also need to be addressed. A national approach is to be applied in writing off and normalising municipal service charges and rates arrears to expedite the issuing of municipal clearance certificates.

⁵⁵ A centre whose primary business is the certification of non-standardised construction products.

Lack of payment for municipal service delivery by beneficiaries is creating a burden on municipalities. In terms of increased recovery of rates and taxes, many government housing projects have prepaid meters for electricity and non-payment results in electricity being blocked for usage. However, the same does not apply to water usage. These means of ensuring recovery of rates and taxes utilised by local municipalities should be rolled out to all municipalities in the country:

- ◆ Many municipalities take no steps to ensure rates and taxes are paid, other than submitting monthly accounts.
- ◆ In social housing projects, rates and services are included in the rent and a 'no-pay, no-stay' policy is implemented.
- ◆ Some municipalities institute a services restriction policy, based on a 50/50 rule. When a beneficiary pays for reinstating the service and for obtaining services, 50% of the amount spent is deducted from the amount owed, and the other 50% is used to provide services to the beneficiaries.
- ◆ Consumer education and mass meetings have been held to ensure that beneficiaries understand the need for service recovery.
- ◆ Satellite offices have been opened up next to or in housing delivery projects to assist beneficiaries in opening up consumer accounts
- ◆ Large services accounts accumulated by beneficiaries during construction are written off in some instances.

4.7 Improve location, density and access to economic opportunities

In order to improve access to economic opportunities and enable structural and spatial transformation of the previous Apartheid regime, improvements to location and access to amenities are required.

Government should strive to normalise the housing market. In theory, the value of any house should increase in value, but in low-cost housing, this is not always reflected. This might be due to poor built quality, but also to poor location. In this sense, if a house is poorly built in a bad location, it is not an asset. The easiest way to ensure an increase in the value of a house is to improve the location. Government should focus on building homes in economically active areas with good services, and promote the use of the house for economic benefits and purposes.

Over many years, government has made wrong investment decisions, building housing developments on the outskirts of town and in the middle of nowhere. By moving these developments closer to town and cities and economic opportunities, a significant difference can be made to the lives of beneficiaries of housing assistance. There is merit to the argument of limited land availability, but that should not stop government from trying to improve the location of housing developments and accessing well-located state-owned land.

Many inner city buildings are standing vacant, and they are the perfect solution to a large portion of the remaining housing problem. These buildings are ideally situated in terms of location (close to economic opportunities, etc), and are already connected to bulk services. Even though extensive upgrading and refurbishment are needed in many cases (which will inevitably be expensive), this is still better than locating people on the outskirts of towns and cities. This 'redevelopment' of areas will solve the issue of inner-city slums and the housing crisis at the same time, with people having direct access to good services and employment opportunities.

Inner-city housing developments (which is mostly rental), is in high demand, especially by the youth in South Africa. There is a bit of resistance towards rental housing from beneficiaries in all age groups and culture, as many desire their own house on a separate stand. The needs of different age groups and cultures need to be catered for as far as possible in the market strategy of government.

The design and layout of low-cost housing projects that have been used over the last 16 years also have to change. The first decade of housing delivery was mostly monotonous in that the projects looked identical. Every project should be unique, and this should be conveyed in its appearance. Surveyors are often responsible for the grid layout of these settlements, and too little time or none is spent on the design and beautification of projects. Urban designers and architects have to become involved in the design and layout of a project, as a multi-disciplinary approach increases the functionality and ultimately the success of any development. The argument that service delivery is easier and cheaper if a grid pattern is followed does not hold much value, as a slight increase in expenditure on service delivery will have enormous impact on the quality of life of residents of these projects. The additional R500 or R1 000 spent on the design and installation of services per unit can result in a 200% increase in quality of life. Government must decide which is more important.

Government housing projects are not always able to address the social proximity aspects of sustainable human settlements, as the location of the projects is not always ideal for sustainability. This is mainly because social amenities are not in close proximity and there are no employment opportunities close by. The delivery of all required amenities and job opportunities within close proximity to the housing project needs to be ensured as far as practically possible.

Densification, infill development, and containing outward expansion of urban areas are required. Sustainability has been a goal only over recent years. In previous years, more single residential units were built. Now the focus should increasingly be on maximising resources and infrastructure. Housing subsidies should include double-storey buildings, and possibly a minimum density in low-cost housing projects of, for instance, 60 units per hectare needs to be enforced.

Houses should be designed and constructed in such a way to break the monotony: for example single storey, double storey, free standing and semi-detached houses. Streets and houses should not be in a straight line. Parks and playgrounds should be incorporated. Subsidy houses should be integrated with other programmes such as social, GAP housing and credit-linked houses. Designs

should be aimed at energy efficiency and use alternative technology.

Issues impacting on the overall sustainability of housing are good location and higher densities; integrated approach to development; affordability of housing and services; a sustainable livelihoods approach; community participation; meeting the needs of vulnerable people; appropriate tenure choice (ownership, rental, rent-to-buy, etc), a range of housing typologies, good design and quality construction; and capturing land values.

Though many more recent projects are well integrated and sustainable, there is seldom enough transport to the location and no direct access from active areas. In the interviews it was suggested that the bicycle system should be implemented more vigorously in certain housing development projects. The Department of Transport has the responsibility of providing sustainable, reliable, affordable and environmentally friendly transport solutions that meet the needs of the users. Owing to the escalation in food prices, and continuous hikes in petrol price and fares, most low-income people cannot afford the cost of transportation. In many cases, families have to contend with non-existent or poor transport infrastructure and lack of public transport to access learning, social, health and other facilities. Cycling as a low-cost mobility alternative could serve as a catalyst to socio-economic transformation. As such, the Department instituted the Shova Kalula national bicycle programme to promote bicycle transport in South Africa among low-income earners, the youth, women, and farm workers in rural areas, townships, and medium-sized cities. This initiative should be supported in housing projects.

Through better enforcement of the EPWP and other recommendations made, government housing programmes could largely improve in transformation of the economic structure inherited from apartheid. However, simultaneously, because many municipalities across the country are still grappling with integrated development plans (IDPs) and spatial development frameworks (SDFs), as well as a myriad of other constraints such as limited land, lack of appropriate evaluation and selection criteria, lack of finances, etc a number of housing delivery projects during the current BNG regime are still being built along apartheid system lines.

There should be better spatial planning in government housing projects. Housing relies on the IDP, which is the municipalities' five-year working document. If a need for housing is not identified in the IDP, then it cannot be provided for; therefore the quality of the IDPs has to improve. Municipal human settlement plans as part of IDPs – which aim to coordinate housing development to promote urban and social integration, as well as poverty alleviation and wealth distribution – require vast improvement. The plans require spatial identification of future growth in relation to current and future economic job opportunities, to enable proper identification of settlement planning.

Economic and demographic scenario models are suggested to be used to give realistic future interpretations of growth in the format of land-use development per sub-place per period for the next 20 to 30 years. These models should take into account historical trends as well as future scenarios

developed around:

- ◆ HIV/AIDS pandemic and associated effects on population and economic growth
- ◆ Natural population growth trends
- ◆ Migration (domestic, international and illegal)
- ◆ Global and South African economic growth scenarios
- ◆ Economic sectoral growth
- ◆ Future growth areas and nodes
- ◆ Spatial initiatives.

The research to be incorporated includes land use and land availability, demographic, economic, and spatial forecast. The objectives of such a detailed study will be:

- ◆ To determine present population and socio-economic characteristics
- ◆ To provide estimates of future growth, based on historic trends and future growth scenarios (20 to 30-year period)
- ◆ To develop demographic and economic models to provide estimates of the future size and distribution of people and economic activities.
- ◆ To provide take-up rates of individual developments and densification

The research suggested must detail what is currently taking place, and then undertake future scenarios and growth analyses for each of the land uses, based on the expected growth. The results must then be represented spatially, taking into account environmental limitations or development constraints. Future spatial representation of demographic, economic and physical components of all the land uses should then be made available to municipal planners and incorporated into the Municipal Human Settlements Plans as part of municipal IDPs.

A map of the combined developments, from the spatial plans, must also be developed from which appropriate future planning can be undertaken. This should include existing urban areas, industrial developments, new developments, areas of growth, subsidy housing, additional households demand, commercial developments, land availability, densification, population growth, etc. The key is to enable locating settlements with economic opportunities.

As is increasingly the approach, informal settlements should be incrementally upgraded where appropriate, rather than automatically relocated (unless unavoidable). A register of all informal settlements must be kept. Informal settlements must be counted and 'ring-fenced' (as is taking place in Gauteng). All new informal settlements that are not registered should then become the responsibility of the local government. This is difficult, as the number of informal settlements keep growing, owing to increasing population. Gauteng is probably affected most, because of the large number of people migrating there in search of job opportunities.

4.8 Address property market and ownership

Many beneficiaries of housing assistance are unemployed, and do not have funds to undertake maintenance. They now have a home, but still no food on the table or clothes on their backs. This is why it is understandable that beneficiaries are selling their houses for meagre amounts.

A number of beneficiaries have to sell their houses or rent them out and go where there are jobs. To improve this situation, the renting and selling of BNG houses needs to be addressed. Consumer education is important, and the beneficiaries should be educated in terms of the full value of their asset. A simple sales office and more structured system (such as council signed letters) should be put in place to formalise informal undertakings for beneficiaries wanting to sell their houses in the interim. Such a sales office should make use of information through estate agents, brokers, beneficiaries, etc. Improved information will support upward mobility of people who can derive value for sales and horizontal mobility where they can move from one area to another.

However, this will still result in continued informal sales, which have far-reaching negative economic effects. When sales take place informally, they do not improve nation building, and result in loss of value. Because most secondary market activity takes place outside the deeds system, this will become a huge challenge for deeds registering over time. Increased access to the deeds registration system is required. To decrease informal property trade, perhaps the sales restriction should be lifted. This should improve the prospect of using the house as collateral for a loan.

In other words, the process of obtaining a house and full ownership of the house as an asset should be improved and speeded up to contribute effectively to structural transformation. Land ownership is still only in the hands of the minority. The Department of Rural Development and Land Reform must increase their budget in order to assist.

Full ownership of subsidy housing should be reconsidered in low-income housing developments to more closely resemble that of social housing. A management body, as with shared-title developments, should be contemplated. This should be cost effective in higher density developments. A management body or an effective support mechanism should be implemented to assist individuals in participating in the secondary housing market. The management body, which could be community driven, must ensure effective maintenance and management of common areas, implement regulations, monitor sales, etc. Improved management will improve the perception people have of those places, and they could eventually become places where people would like to buy.

Improved municipal investment in developing priority areas is critical. The municipality has unmandated funding, and must increase investment in whole areas. National and provincial government should provide focused support to local government to assist them in committing higher levels of investment and management, in order to secure the improved investment grade of government housing support areas. Area development should be put out to tender, as was done in Motherwell, where a developer is now developing the entire area. This tender is the first of its kind and is ground-breaking. In improving property market areas to realise increased value,

municipalities should increasingly consider private/public partnerships. Obviously different sub-markets require different interventions because some still require services in informal settlements. Housing stock needs to be seen as a social net and townships must be created as places where people live that are clearly linked into the economy.

4.9 Enhance departmental collaboration and coordination

All parties impacted on by housing development should come on board, such as the Department of Water Affairs, Eskom, and Department of Labour. A collaborative and coordinated approach to housing is needed to make it a success, and it should not be the sole responsibility of the Department of Human Settlements. But it is important to give a clear outline of responsibilities and deliverables to ensure that each stakeholder knows exactly what to do in the process. In other words, a multi-sectoral approach is required to enhance economic development potential.

These parties can provide joint funding to support land acquisition, housing developments, and innovation in building materials and technologies. For instance, water tanks will benefit the Department of Water Affairs in the long run; solar geysers/panels to heat water for household uses will benefit Eskom; and labour-intensive technologies will affect the Department of Labour. If Eskom is involved from the planning phase, provision of electricity can be made easier. If more people are living closer to job opportunities and schools, less money will be required by the Department of Transport for transporting people. It is therefore of vital importance to make the stakeholders aware of their interest in housing development, and how they can benefit if a different approach is taken.

Lack of integrated budgeting is a key issue. Policy is in place, but the funding sources are fragmented. For example, some housing projects include a school, but this school probably will not be built because of funding problems in the Department of Education. Infrastructure funding, such as the MIG, is available, but are not always aligned. To improve, this it is suggested that the term 'sustainable human settlements' should be defined by the National Department and included in the policy.

There is also a lack of integrated planning and support from all the departments in local municipalities. During the planning phase, the efforts of all departments of municipalities should be drawn together to inform the housing project. Better coordinated planning is required.

There is currently a lack of coordination as government departments are working in solo. Only if all the parties come together and work collectively can sustainable human settlements be achieved. Provision of other forms of activities in the communities that will sustain them after the housing project is complete is of vital importance. This is where the various sectors of government come in and should work collectively to create sustainable settlements.

Financial institutions must increasingly come on board. Increased access to credit is also required. The banks' performance is both a cause and a consequence of the performance of the secondary market. Since banks are not lending, the performance of the market is undermined, but since the

market is not performing, lending patterns are undermined. Various loan products should be developed and property-based collateral should offer security for loans for business finance and other income-generating opportunities, linked to savings and insurance cover, etc.

The private sector as well as NGOs, CBOs, and developers must also join forces. Sites reserved for commercial development and playgrounds should be utilised accordingly. Government departments cannot afford to hold weight independently. The communities should take ownership of the facilities provided. Community forums should be established to ensure facilities are maintained. Every citizen must participate. Public/private partnerships are important. Private sector investment is needed, but the private sector is slow to contribute and invest because of what they have seen and heard (corruption). Greater commitment in general towards sustainable human settlement development is needed.

The roles of supporting departments are briefly:

- ◆ **Land Affairs:** Land-use management and other planning legislation, relating to vesting and transfer of state land and the rural housing programme.
- ◆ **Department of Rural Development and Land Reform:** Managing and distributing land.
- ◆ **Public Works:** EPWP, asset register, the state land register.
- ◆ **Provincial & Local Government:** Urban Renewal Programme and Municipal Infrastructure Grant Programme, operational and maintenance budgets for municipal social amenities. Municipalities need to take part in a bigger way. At present there are many projects that cannot be implemented because municipalities cannot provide the bulk services and do not sign service agreements.
- ◆ **Environmental Affairs:** To ensure streamlined approval process of land-use applications and urban edge extensions in line with the environmental potential atlas.
- ◆ **Justice:** Relating to the vesting and transfer of state land.
- ◆ **Science and Technology:** Innovation, technologies and indigenous knowledge.
- ◆ **Arts and Culture:** Role of artists and designers in settlement creation, and support of heritage.
- ◆ **Health:** Provision of primary healthcare and crèche facilities requires consultation.
- ◆ **Sports and Recreation:** Provision of sports facilities requires coordination and consultation.
- ◆ **Transport:** Provision of taxi ranks and the role of transport subsidies vis-à-vis housing subsidy and land for housing, requires discussion and coordination.
- ◆ **Home Affairs:** Expedient resolution of illegal immigrant problems that may be identified at community survey stages.
- ◆ **DPLG:** To ensure that funding is supplied for bulk and connector services for the priority projects, to assist with the capacity building and restructuring of municipalities where required, as well as town planning legislation to facilitate fast tracking of development.
- ◆ **Education:** Alignment of planning of school facilities with township development progress.

One of the provincial departments has a memorandum of understanding (MOU) with the Department of Social Development. Based on the success of this, it is proposed that the head of each provincial department use coordinating structures and MOUs with all departments identified above (and others) to improve collaboration and coordination.

4.10 Speed-up delivery to address backlogs

Government must find a way of streamlining the process to ensure quicker housing delivery with fewer problems along the way.

It is widely acknowledged that the current housing development approach will not meet the current and future backlog. Alternative development and delivery strategies, methodologies and products are needed, including upgrading informal settlements, increasing rental stock, and promoting and improving access to housing opportunities in the gap market.

Provincial interviews stated that government must enter into public and private partnerships to reduce the backlog of housing. Private developers should also be forced to reserve a portion for low-income projects within their developments.

However, accelerated delivery requires greater rental and greater upgrade of informal settlements. Good planning can serve as a catalyst for economic development and job creation.

The Affordable Rental Housing Programme in the Department of Human Settlements is one of the initiatives towards eradication of housing backlogs, through provision of rental housing for low-income people who cannot be accommodated in the formal private rental market. Although the scale has been limited, two rental housing programmes have been introduced in the form of community residential units and social housing.

Interviews with provincial departments indicated that beneficiaries should be allowed to purchase and own serviced sites. This will increase the spend of housing delivery.

The research has shown that the housing financing breakdown or split will remain a problem for as long as it is financed by the government. If beneficiaries had to pay a portion of the costs, they would value their houses more. Fully financed houses should be given only to deserving individuals and a improved process of identifying them should be followed.

Government is a passive observer in the entire process of housing delivery. They provide funds, and are not really hands-on involved in the rest of the project, from planning to construction to final delivery. To rectify this, government has to become actively involved in the housing delivery process to ensure the desired results.

4.11 Improve monitoring and evaluation and the HSS database

Monitoring systems are not well developed, and monitoring and evaluation are still aimed mostly at numbers and quality of structures because of the lack of criteria to measure the socio-economic impacts on people and places.

One of the key challenges is capacity shortage. Project managers are supposed to check the quality of each project, but capacity shortage means that they do not ensure quality, never mind other targets. Improved monitoring and evaluation requires addressing human resources needs and capacity at provincial and local level because these sections are generally small and under-staffed, which results in poor monitoring.

To improve diligence and commitment by all stakeholders, employment equity levels have to be monitored, and council should insist on skilled personnel in all areas. A large number of officials sit in council for the benefits (car allowance, medical aid, cellphone allowance, etc), not because they are passionate about what they are doing. To improve this, the right people should be appointed for the right job, and rewarded for their performance. A clear distinction should also be made between politics and administration. Continuous training of personnel is required. Committed quality-control officers should be employed per project and they should have incentives to keep them focused and committed to their work.

According to some municipal and provincial officials, quality is not an issue of monitoring, and monitoring has no impact. In addition to improved monitoring and evaluation, there is greater need for education and clarity on the effects and importance of monitoring and evaluation and resultant increased accountability.

Some have reported that monitoring system has been improved, because it has now been aligned with EPWP criteria. However, the study results revealed that limited strict EPWP criteria are being followed.

An improved system must be implemented, which determines whether policy is effectively and efficiently being met, and for monitoring the impacts of government housing expenditure on the population and space economy of an area. This should be aligned with scorecards with targets for employment, skills transfer, etc. The proposed indicators for monitoring the economic impact of government housing programmes should be easily administered and should take into consideration the shift to the development of sustainable human settlements.

Lessons can be learned from two provinces, namely Western Cape Provincial Government, which has developed a model for application in evaluations; and North West, which uses a one-page monthly progress sheet to capture project-related information, including job creation and labour intensiveness. Other provinces reportedly undertake monthly progress reviews, but no detailed progress monitoring sheets have been noted.

The housing evaluation criteria developed by the Western Cape Provincial Government (2006) are as follows:

◆ **Economic efficiency (prosperity)**

- ◆ Enhance economic security and/or promote employment (job creation): access to economic opportunities (eg low and medium skilled)
- ◆ Promote an affordable range of options: ability to leverage resources: ability to mobilise commercial housing finance, cross subsidisation of housing by other departments, mixed uses including commercial, business industry (hives), mixed income communities.
- ◆ Promote optimal use of space and infrastructure: extent of bulk infrastructure (existing): bulk services, eg water, sewerage, electricity and roads, transport capacity, including public transport linkages, provision of higher density housing which supports efficiencies such as along major routes (eg public transport corridors/routes/interchanges), around open spaces, and underdeveloped sites with development potential
- ◆ Promote economic activity and SMMEs: layout and/or design promoting and/or supporting economic activities, eg support to small business sector development and building connections between the second and first economy
- ◆ Make provision for commercial/SMME activities (eg innovative designs and layouts which provide commercially feasible formal and informal small business premises and trading areas)
- ◆ Foster creativity: ability/measures to reduce risk and enhance access to commercial housing credit (redress redlining) and application of alternative construction methods to promote cost efficiency and/or employment creation.

◆ **Social justice (people)**

- ◆ Enhancing quality of life and access to resources: improved access to social development resources – reliable basic services (education, recreational, cultural, health, welfare and policy). This could be achieved through the quality of design (for example the strategic location of the project close to such amenities and/or through the provision for the amenities within the overall project development plans)
- ◆ Promoting social and spatial integration: proximity to and/or linkages with other income or social groups/communities (extent of integrated/mixed communities and income groups (in close proximity)
- ◆ Building communities (including upgrading of informal settlements): involvement of communities at early stage in planning process and establishment/implementation phases. Note evidenced by records of community consultation, provision of beneficiary lists, community management and ownership structures and plans (eg community forums, body corporate and trusts), and provision of new social facilities and amenities integrated with the project

◆ **Ecological integrity (planet)**

- ◆ Attaining sustainability (eg incorporating ecologically sensitive settlement design alternatives): compatibility with existing cultural landscapes, artefacts and buildings, application of building materials to conserve costly resources (recycling, insulation, solar heating), demonstrate the minimisation of the consumption of scarce environmental resources: water and electricity, promote ecologically sensitive settlement design alternatives (eg water saving potential, waste disposal, power, appropriate orientation), must have an EIA (if relevant).

The monthly progress sheet used in North West is designed to capture:

- ◆ **Project information:** Project HSS number, project name, developer, project manager, number of stands, date of contract signing, date construction commenced, housing programme, local authority, township, town, average household size, average erf size, longitude and latitude
- ◆ **Subsidy information:** number of subsidies, number of applications to PHB, number of beneficiaries approved, and number of disabled beneficiaries approved
- ◆ **Design and installation of services information**
- ◆ **House construction information**
- ◆ **Job creation information:** total number of jobs created (temporary), total jobs created (permanent), percentage of women employed, number of local contractors used, daily wage, percentage unskilled labour, percentage semi-skilled labour, percentage skilled labour, percentage non-local labour professionals, EPWP conditions met Y/N, mechanisms used to ensure that transfer of skilled labourers becomes a success, number of women employed, number of youth employed, number of disabled people employed
- ◆ **Financial information:** original approved amount, plus geotechnical allowance, plus inflation adjustment, plus disability allowance, etc.
- ◆ **General comments and hindrances to project completion:** land availability, services agreement, EIA, availability of bulk services, capacity of municipality, township registration, geotechnical conditions, subsidy admin approval, non performing contractors, final cost, cost escalation, community conflict, payment delays, acts of God, other.

It is important that the necessary monitoring and evaluation (M&E) infrastructure and frameworks should be put in place now if future large-scale economic impact assessments are to be commissioned. Such M&E infrastructure and frameworks will enable future officials and other stakeholders to keep better records of data and provide such data on a needs basis.

For this study, these core indicators were evaluated through desktop reviews and numerous stakeholder workshops, which should be incorporated into an M&E sheet:

- ◆ **General project information**
 - **Project name and number**
 - **Project location:** Local authority, township, town, longitude and latitude
 - **Subsidy instrument type**
 - **Project duration:** project start and completion date
 - **Project status:** started/active, in-active, completed
 - **Type of tenure**
 - **Size:** Average erf size, average stand size, average household size
 - **Name of developer and project manager**
- ◆ **Housing expenditure and delivery**
 - **Delivery of housing units:** number of approved and completed top structures, number of approved beneficiaries and number of actual beneficiaries
 - **Expenditure:** approved budget, actual expenditure, including variations, breakdown of expenditure on land provision cost, top structure cost, infrastructure provision cost, professional fees cost, hidden costs, other costs, and total project cost
 - Gross National Product (GNP) and additional business sales
 - Employment during construction and operation
- ◆ **Financial impact**
 - **Local municipality tax base:** total value of accounts submitted, value of additional income generated, cost of free basic services, value of additional expenditure, optimal use of infrastructure (bulk services existing)
 - **LM bulk infrastructure and service delivery:** type of basic services provided, contribution by LM, change in workforce, additional expenditure on bulk infrastructure upgrades, and cost of service delivery
 - **Social amenities provision:** value per type of LM investments, value per type of other departments' investments, other investments attracted. Specify investment source, type of investment, year of investment, rand value of investment
- ◆ **Job creation and income impact**
 - **Expenditure allocated to SMMEs and BEEs:** projects allocated to SMMEs, projects allocated to BEEs
 - **Project employment:** total employment in man months, employment distribution per skills type (skilled, semi-skilled, unskilled), employment distribution of special groups (women, youth, disabled), labour intensiveness and on site materials construction, daily wage per skills type, EPWP conditions
 - **Contractors' expenditure:** Breakdown of expenditure, Local expenditure, Availability of local materials and project delays, profit margin
 - **Skills development:** qualifications of workforce, training type and duration
 - **Beneficiary income:** employment status pre/post assistance, income per source pre/post

assistance, livelihood and income generating ability pre/post assistance, Use of living quarters for home based income earning activities, renting out living quarters (or part)

- ➔ **Beneficiary expenditure:** expenditure breakdown pre/post housing assistance, expenditure on housing maintenance and upgrading/extensions per unit per annum, ownership of households goods pre/post housing assistance per type, housing assistance affordability

◆ **Impact on human capital of beneficiaries**

- ➔ **Use of house (or housing support) as an asset (present and future):** Access to title, use of living quarters as asset/collateral for loans, Expansion/additions/renovations, future sale plans, awareness of informal sales, house price reductions, range of tenure options
- ➔ **Exposure to criminal activities:** Level and type of criminal activity pre/post housing assistance
- ➔ **School/work performance:** Time available for work/study, work/study stability, expected education attainment, expected work attainment
- ➔ **General health:** Cost of health services pre/post housing assistance, General health of surrounding environment pre/post assistance, Access to health services pre/post housing assistance

Desirability of location: Access to infrastructure and social amenities pre vs. post housing assistance, access to economic and urban opportunities, time and costs to destinations pre/post housing assistance, access to natural resources, sense of attachment to area, transport capacity and linkages, supporting targeted growth sectors, higher density of units, alternative construction methods, access to economic opportunities, mixed use including commercial and business industry (hives), mixed income communities, underdeveloped sites with development potential

In addition to improved monitoring and evaluation a need for improving record keeping of the HSS database is required. When the HSS database is compared with official delivery and expenditure statistics, it is evident that the database contains only about 69% of official housing delivery statistics and 67% of official expenditure. Furthermore, according to the HSS database, social housing represents 41% of houses completed and 53% of expenditure. Based on discussions with department representatives, it was felt that this database does not provide a true reflection of the programmes. A major limitation to future research is the lack of a sample frame. Though it is probably impossible to improve the historically captured data, future attempts at improved HSS data collection aligned with official expenditure and delivery is recommended.

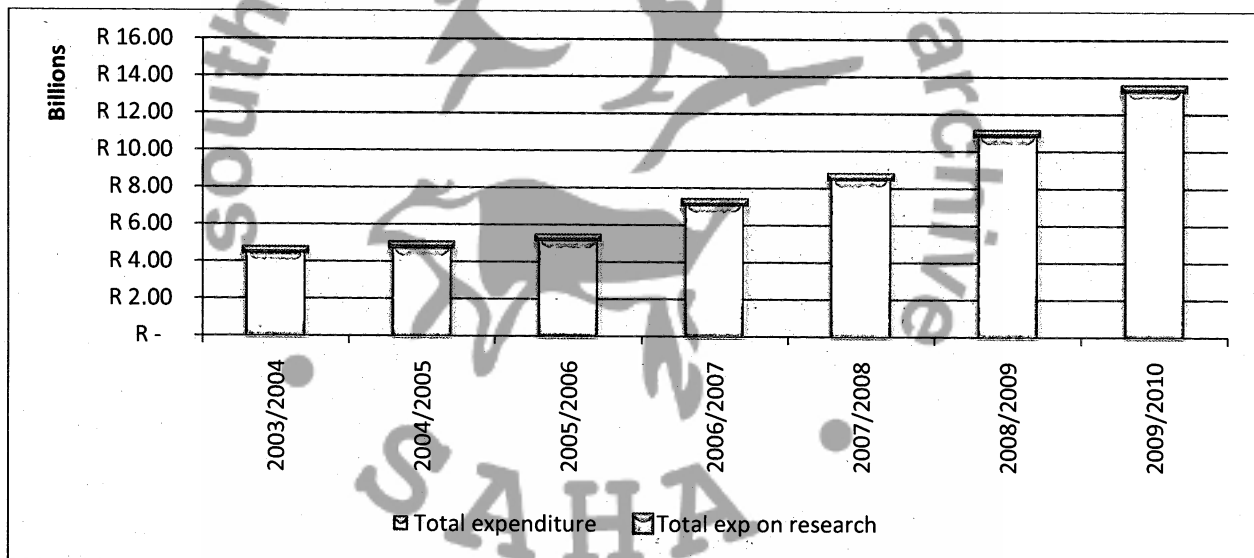
4.12 Undertake continued research and development

Government has an important role to play in research and development (R&D) in order to support the productivity and competitiveness of a country. This is recognised by national government. South African Development Indicators (2010, 13) states, 'R&D is vital to a country's economic growth as it determines its future competitiveness. South Africa seeks to maintain R&D expenditure of at least 1% of GDP.' Although the government has come close to reaching the 1% target, it has not reached it yet. In monetary terms, expenditure on research and development has been increasing steadily over the years as it increased from R2.8 billion in 1991/1992 to 18.6 billion in 2007/2008.

R&D also has a role to play in housing developments as it could assist in improving the approach to providing suitable housing, housing typologies, enhancing economic impact, etc.

Figure 4.1 below illustrates the spending that has been provided for research by the Department of Human Settlements. This spending is indicated for the 2003–2010 period because the directorate that is solely responsible for research began to operate only in 2003.

Figure 4.1: Spending on research and development by the Department of Human Settlements



Source: Urban-Econ Calculation based on Department of Human Settlements Annual Reports

Figure 4.1 illustrates that a very small proportion of the Department of Human Settlements' budget is spent on research, with an average annual expenditure in research of 0.05% of its total expenditure. While it is encouraging to note that research has been given some consideration, albeit marginally, the overall impact or utilisation of the research has not yet filtered down to grassroots level.

In short, major advances have been made in short period of sixteen years and in recent years homes are being emphasised over houses, quality over quantity and communities over residential developments.

However more expenditure on R&D is required. The CSIR and other research institutions are

available for research to improve the entire government housing aspect; they just need funding and support from government.

More research on allocations versus expenditure is necessary. This requires improved and continued monitoring on amounts spent and sources of funding (government department, private, international, etc). Information must be of such a nature that the true impact of government investment can be defined. This includes the number of jobs created, and facilities provided and whether they are being effectively utilised.

In short, to maximise the multiplier impact of the National Housing Delivery Programmes the following should be aimed for:

- ◆ Implement policies that assists in maximising local job creation and ensure that the benefits are also felt within the smaller economies. Consider using enforcing EPWP (or similar) criteria.
- ◆ Ensure that the sites identified for housing development are well placed with adequate densities that improves the level of accessibility of households to economic amenities and economic opportunities.
- ◆ Address property market and ownership.
- ◆ Enhance income generation post-housing assistance.
- ◆ Improve consumer education.
- ◆ Improve municipal service delivery and income generation.
- ◆ Increase the productivity of workers.
- ◆ Improve unit quality and decrease unit costs.
- ◆ Improve building materials and the use of renewable resources.
- ◆ Ensure maximum skills transfer.
- ◆ Increase implementation to eliminate housing backlogs.
- ◆ Enhance departmental collaboration and coordination.
- ◆ Improve monitoring and evaluation and the HSS database.
- ◆ Ensure increased and continued research and development on a myriad of topics to assist in improving cost, approach, building materials, housing typologies, location, etc.

BIBLIOGRAPHY

- ◇ Baade R.A, & Matheson V.A, 2004. The Quest for the Cup: Assessing the Economic Impact of the World Cup.
- ◇ Biermann, S 2006. A sustainable livelihood cost-benefit model to enhance the understanding of the dynamics between low income housing and location. *Town and Regional Planning* (Special Edition December 2006).
- ◇ Botha RF, Greyling L, Heyns J vd S, Loots AE, Schoeman C, vd Bergh, J. & Van Zyl G, 2001. Introductory Economics: Principles and Issues from a South African Perspective.
- ◇ Bramley, G and Karley, N K 2007. Homeownership, Poverty and Educational Achievement: School Effects as Neighbourhood Effects. *Housing Studies* 22 (5) (September): 693–721.
- ◇ Center for Housing Policy 2007. Positive Impacts of Affordable Housing on education: A Research Summary.
- ◇ Charlton, S 2005. Taking Stock: Outcomes of the South African subsidy scheme. Presentation. School of Architecture and Planning, University of the Witwatersrand, July.
- ◇ Charlton, Sarah, Silverman, Melinda and Berrisford, Stephen 2003. Taking Stock: Review of the Department of Housing's Programme, Policies and Practice (1994 – 2003).
- ◇ Coetzee, M n d. Local Pathway to Sustainable Development in South Africa: Summary Document on the IDP LA21 Relationship for publication and dissemination at the World Summit.
- ◇ CSIR, n d. Sustainability Analysis of Human Settlements.
- ◇ Daniels M.J, 2004. Beyond Input-Output Analysis: Using Occupation-Based Modeling to Estimate the Wage Generated by a Sport Tourism Event.
- ◇ Department of Public Works 2006. Property Sector Transformation Charter.
- ◇ Development Action Group, n d. Sustainable medium-density housing – A Resource Book.
- ◇ Dohmen, T 2005. Housing, Mobility and Unemployment. *Regional Science and Urban Economics*, 35, 305–325.
- ◇ DPW 2005. Framework for Monitoring and Evaluation of the Expanded Public Works Programme.
- ◇ DPW 2010. Construction sector Broad-Based Black Economic Empowerment Charter Version 6.
- ◇ DPW 2010. Expanded Public Works Programme Summary of Core Definitions for Monitoring Purposes.
- ◇ Dwyer L, Forsyth P, Spurr R & Ho T, 2004. The Economic Impact and Benefits of Tourism in Australia: A General Equilibrium Approach.
- ◇ Kasimati E, 2003. Economic Aspects and the Summer Olympics: a Review of Related Research.

- ◆ Kirkup N & Major B, 2006. Doctoral Foundation Paper: The Reliability of Economic Impact Studies of the Olympic Games: A Post-Games Study of Sydney 2000 and Considerations for London 2012.
- ◆ Knight R, 2001. Housing in South Africa.
- ◆ Madden J.R, 2002. The Economic Consequences of the Sydney Olympics: The CREA/Arthur Andersen Study.
- ◆ Napier and Nana Ntombela, n d. Towards Effective State Interventions to Improve Access by the Poor to Urban Land Markets.
- ◆ National Department of Housing, 2003. A Social Housing Policy for South Africa: Towards an Enabling Environment for Social Housing Development. National Department of Housing 2005. Housing Atlas: National Spatial Investment Potential For Housing,
- ◆ National Department of Human Settlements 2004. 'Breaking New Ground': A Comprehensive Plan For The Development Of Sustainable Human Settlements.
- ◆ National Department of Human Settlements 2009. Sustainable Human Settlements: Understanding the Settlement and the Sustainability Factors 'Conceptually Grounding Human Settlements'.
- ◆ National Department of Human Settlements. Department of Human Settlements Annual Reports 2003 – 2010.
- ◆ National Treasury, 1997 – 2010. National Budget
- ◆ Preuss H, Seguin B & O'Reilly N, 2007. Profiling Major Sport Event Visitors: The 2002 Commonwealth Games.
- ◆ Prinsloo J W & Smith, H. Developments In Fixed Capital Stock: 1960-1995.
- ◆ Quantec Research. Standardised Regional Data.
- ◆ Riccio, J A 2007. Subsidized Housing and Employment: Building Evidence about What Works.' Prepared for Revisiting Rental Housing: A National Policy Summit, November 2006.
- ◆ Rust, K 2004. Workings of Township Residential Property Markets.
- ◆ Rust, K 2008. Investigation into the Perceived Impact of Market Distortions Ostensibly Created within the Residential Housing Market as a Result of Government Subsidies.
- ◆ Sexwale, Tokyo, 2010. The Presidency Development Indicators Report.
- ◆ Sexwale, Tokyo, April 2010. Address by the Minister of Human Settlements, Tokyo Sexwale MP, on the occasion of the Human Settlements Budget Vote.
- ◆ Shisaka Development Management Services (Pty) Ltd in Association with CSIR Built Environment, 2006. Home Based Entrepreneurs.
- ◆ Social Housing Foundation 2009. Cost-Benefit Analysis: Social Rental Housing and RDP Housing.
- ◆ Social Housing Foundation 2009. Cost-Benefit Analysis: Think Pieces.
- ◆ South African Cities Network, 2007. State of City Finances Report.
- ◆ South African Human Right Commission (2004). The Right of Access to Adequate Housing.

5th Economic and Social Rights Report Series 2002/2003 Financial Year, 21 June 2004.

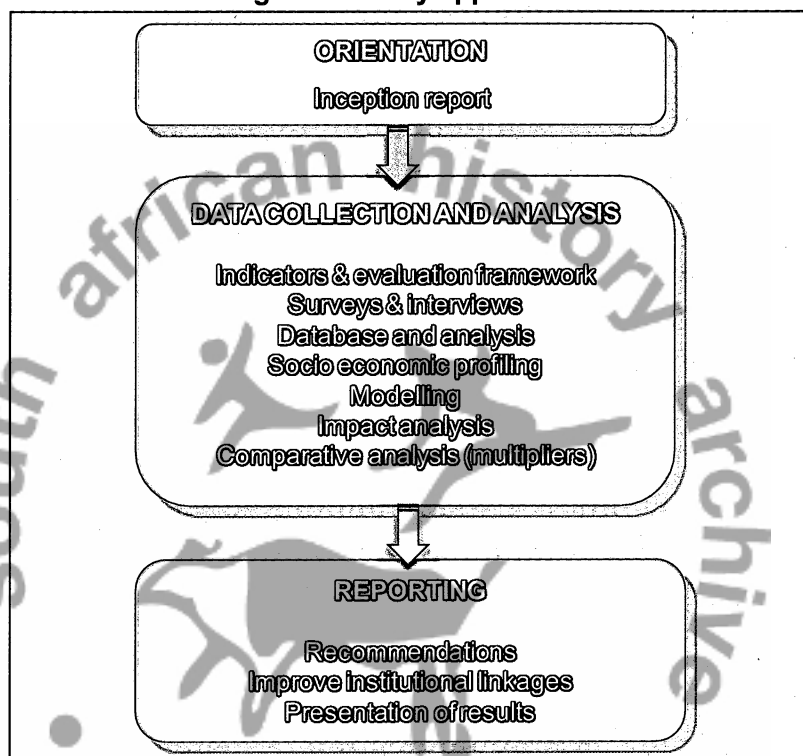
- ◆ South African Reserve Bank, 1994 – 2010. South African Reserve Bank Quarterly bulletin.
- ◆ Statistics South Africa, 2010. Concepts and Definitions for Statistics South Africa, Version 3.
- ◆ StatsSA Labour Force Survey, 2000 – 2010. Statistics South Africa.
- ◆ The Presidency, 2006. National Spatial Development Perspective.
- ◆ Thubelisha Presidential Study n d. Presidential study: Housing Infrastructure Investment.
- ◆ Urban LandMark 2007b. Voices of the Poor: Community Perspectives on Access to Urban Land.
- ◆ Urban LandMark 2007c. Overview of Urban Land as a Commodity in South Africa: Research Findings and Recommendations.
- ◆ Urban LandMark 2008b. Urban Land Markets and the Poor: New Findings
- ◆ Urban LandMark 2008c. How the Poor Access, Hold and Trade Land.
- ◆ Urban LandMark 2008d. Competing for Urban Land: Improving the Bidding Power of the Poor.
- ◆ Urban LandMark 2008e. The dynamics of the formal urban land market in South Africa.
- ◆ Urban LandMark and UN Habitat 2008. Africa's Urban Land Markets: Piecing Together an Economic Puzzle.
- ◆ Urban LandMark, 2007. Making Urban Land Markets Work Better in South African Cities and Towns: Arguing the Basis for Access by the Poor.
- ◆ Van Wyk, L, 2010. Interview with researcher in the field of building science and technology at the CSIR's Built Environment unit.
- ◆ Western Cape Provincial Government 2006. Consultative seminar: A Dialogue Towards Partnerships For Human Settlement Development: Economic Evaluation of Housing Projects
- ◆ www.property24.com, 2011. R58bn needed to fix govt houses.
- ◆ Zack, T and Charlton, S 2003. Better off, But ... Beneficiaries Perceptions of the Governments' Housing Subsidy Scheme. Housing Finance Resource Programme Occasional Paper 12, June 2003.

ANNEXURES

ANNEXURE A
Study approach

The study approach is shown and described briefly below.

Figure 1: Study approach



Phase 1: Orientation

This phase entailed clarifying the project process and developing consensus on the way forward. An inception report was produced and presented to the steering committee. It contained:

- ◇ Goals, objectives, milestones, and timeframes
- ◇ Methodology and approach
- ◇ Research plan
- ◇ Method of cooperation and communication between client and project team
- ◇ Clarification of project management issues
- ◇ Schedule of monthly progress meetings

Phase 2: Data collection and analysis

The data collection and analysis phase involved:

- ◆ Holding meetings with the Monitoring and Evaluation Directorate and Information Management Unit
- ◆ Reviewing desktop material, case studies and secondary data
- ◆ Developing a discussion report on the desktop review and variables for evaluation, which was produced and presented to the National Human Settlements Task Team
- ◆ Obtaining comments from task team members on the variables, while the variables were narrowed down to a second version of indicators, namely the core indicators
- ◆ Developing a list of core indicators (linked to goals and data sources) and a set of questionnaires (to obtain primary data) which were provided to the task team members for comment on the 1st and 2nd weeks of July 2010
- ◆ Training personnel from the Department
- ◆ Collecting data, which took place in August, September and October 2010
- ◆ Developing the economic impact model
- ◆ Producing a data collection results report
- ◆ Undertaking impact analysis

The literature review and indicators report contained:

- ◆ Department of Human Settlements mandate
- ◆ Relevant housing policy and legislation
- ◆ Housing delivery programmes
- ◆ Departments' monitoring and evaluation indicators per goal (over 200 indicators)
- ◆ Key definitions drawn from literature review
- ◆ Housing impact literature review and extraction of indicators per theme from national and international literature review, namely:
 - Housing product evaluation
 - Property market
 - Labour market and poverty reduction
 - Economic growth and development
 - Education
 - Health
 - Crime
 - Social cohesion
 - Transport
 - Spatial integration and sustainability

There is extensive national and international literature and research on the social and economic effects of housing. Very little, however, tries to measure the social and economic effects of government housing programmes and types of housing, never mind the impact over the years, or assessing whether the social and economic impacts were caused by incomes of households or by the housing itself. As such, primary data was collected.

In an attempt to gather as much information as possible to successfully undertake the study, the HSS database was used to extract the municipalities with the highest expenditure on housing delivery. It was not possible to randomly select local municipalities, as one could sample municipalities with insufficient delivery, project types, and representation of years.

The **cluster sampling method** was used to determine clusters of municipalities to be surveyed per province. This method is used when a survey needs to be undertaken across a wide geographical area, for example South Africa. The statistically most efficient cluster design is the one in which the clusters are chosen with probability proportional to size, and where the same number of projects is surveyed in each cluster. This method implied breaking down the geographical areas into clusters and then randomly selecting the cluster of municipalities to be surveyed per province. In other words, the HSS database was first sub-divided into provinces, then local municipalities, and then sorted by expenditure per municipality (from highest to lowest), project types, and year of delivery. Municipalities were selected with probability proportional to size at the stage of sample selection. This means that the municipalities with greater expenditure had a better chance of being selected than municipalities with smaller expenditure. The cluster sampling method was applied to each province separately.

The municipalities selected in each of the nine provinces from which projects were sampled included:

- ◆ **Eastern Cape:** Nelson Mandela Bay, Buffalo City, Ndlambe
- ◆ **Western Cape:** City of Cape Town, Drakenstein, Theewaterskloof
- ◆ **Northern Cape:** Sol Plaatje
- ◆ **Free State:** Matjabeng, Mangaung
- ◆ **North West:** Rustenburg, Madibeng, Matlosane
- ◆ **Limpopo:** Polokwane, Modimolle, Mogalakwena
- ◆ **Mpumalanga:** Emalaheni, Delmas, Govan Mbeki
- ◆ **KwaZulu-Natal:** eThekweni, Kwadukuza, Msunduzi
- ◆ **Gauteng:** City of Tshwane, City of Johannesburg, Emfuleni, Ekurhuleni

The study aimed for a **stratified complex probability sampling strategy** with a reasonable degree of representivity in order to sample projects. The explicit primary strata consisted of (1) province, (2)

type of municipality (and expenditure), (3) type of project, (4) before/after Breaking New Ground (BNG), and (5) start date. This was done to ensure that all subsidy instruments, time periods, etc, were included in the final sampling scheme, because not all subsidy instruments were applied in all provinces.

Considering budgetary and time constraints in line with project costing, the stratified sample included 81 projects, which is representative of 1% of the projects on the HSS database. Because the study did not have a sample frame, it is not possible to determine the sample size percentage, owing to an unknown amount of housing subsidy projects delivered in the country over the timeframe in question.

Although there are no statistically fixed rules as to how large sample sizes should be – since this depends on the extent to which populations being surveyed conform to statistical normality (and survey populations seldom do) – the number of sampled projects yielded a dataset robust enough for a higher level of reporting at national level. However, lower-level reporting, such as at programme level, should be cautioned against.

Without clarity on the split in expenditure per programme, a minimum of ten projects were sampled per programme with greater emphasis on sampling project-linked programmes because of known indications of greater expenditure.

Some projects in the sample cells were selected deliberately, in that the task team decided that provincial departments need to be allowed to make changes to the sampled projects, based on ensuring that good case study projects are included, the projects have delivery on the ground, and represent the sampled project type, etc. A list of such projects was requested prior to sampling, although it was not obtained, and therefore project replacements were allowed. The sample of projects chosen from the sampled municipalities thus spans a wide range of variables, such as location, size, subsidy type, before/after BNG, and good case study projects.

Within each sampled project, ten beneficiary households were sampled to collect data on the target market and to gain an insight into the impact of beneficiaries. The sampling technique employed to determine the households to be included in the survey entailed the random-walk method. The usual methods of systematic sampling require knowledge of all households available in the cluster and randomly selecting them for the survey. Such an option was not possible, given the limited information on project locations, project size, etc, and a random-walk method was employed. The method entails:

- ◆ Randomly choosing a starting point and a direction of travel within the sampled project. By following this approach and selecting a location prior to the field work, any bias in the choice of

location to survey was eliminated

- ◆ Conducting an interview in the nearest household
- ◆ Continuously choosing the nearest household for an interview until the target number of interviews has been obtained

Based on the date of occupation reported by the beneficiary compared with accounts from province, municipal housing officials, and contractors regarding date of project completion (which was not always known owing to lack of information keeping), it appears that between 9% and 11% of beneficiaries sampled are not the original beneficiaries. However, since the date of occupation cannot be confirmed accurately, and since many projects are completed over a couple of years, the extent to which 'new' occupants are the original housing beneficiaries that moved in a couple of years after some of the others or are rightful housing beneficiaries that managed to 'jump the queue' cannot be confirmed; nor was this part of the study scope. As such, the results of the survey are based on all beneficiaries sampled. Nor could the degree to which property transfers were legal or illegal be confirmed, based on the same indications as above; nor was this part of the study scope.

Lastly, a multi-dimensional methodological approach was adopted for the study, including a review of policy documents, interviews with all provincial departments of human settlements, interviews with sampled municipal housing departments, sampled research specialists, as well as private developers and contractors, to provide a detailed investigation into every project that forms part of the sample.

Wherever it was meaningful to do so, the same questions were asked of more than one of the parties to serve as a cross-check, and to test whether there is common understanding and interpretation of the impacts.

These questionnaires were administered:

- ◆ **Provincial surveys:** Surveys were undertaken with housing officials from all nine provincial departments of human settlements. A structured provincial interview sheet was utilised, which included general housing information, with open-ended questionnaires pertaining to housing identification, criteria for assessing project applications, degree of government housing programmes achieving intended outcomes, and perceptions to improve economic impact of programmes, etc. A one-page project-specific questionnaire was included to obtain, among others, expenditure breakdown, delivery, training provision, and socio-economic investments for the 81 sampled projects.
- ◆ **Municipal surveys:** A structured municipal interview sheet was utilised to obtain general background housing information and perceptions in order to improve economic impact, as well as a detailed project-related section containing similar information to the provincial sheet, but

with more detail, including aspects such as facility and services proximity, and degree of house sales, and with a detailed engineering-related section and treasury/finance-related section.

- ◆ **Contractors surveys:** A short and pertinent structured contractor interview sheet was developed with some general contractor and housing information and then project information with the same information as the municipal questionnaire (excluding treasury and engineering). It included aspects such as types of skills developed, degree of local material purchased, use of local labour and SMMEs. Obtaining information from contractors proved extremely difficult; some are deceased; others have left the country; some have disappeared after 'failed' projects; some have been liquidated; and some refused to be part of the study. In some cases, neither province, nor the municipalities were able to provide contact details of contractors, while in others the contact details have changed and the contractors could not be traced. The community representative organisations (CROs) for PHP projects have mostly proven unattainable and hence few 'contractors' were seen in PHP projects.
- ◆ **Beneficiary surveys:** A detailed beneficiary questionnaire was developed, complete with post-coding. The questionnaire enabled the researchers to obtain background information (such as name and contact details of respondent), demographic information, economic information, household income and expenditure, dwelling information (previous and current dwelling), ownership of household goods, use of dwelling as an asset and change in access, as well as perceptions to improve the economic impact of housing programmes.
- ◆ **Project evaluation sheets:** Detailed project evaluation sheets were developed and administered by qualified town and regional planners. These sheets entailed obtaining background information, evaluating facilities and services proximity, evaluation of status of project and perceptions.
- ◆ **Structured interview sheets for research specialists:** These combined many of the general provincial and municipal questionnaire components without referring to specific projects.

After projects were surveyed and questionnaires were completed by stakeholders, data were captured and cleaned to comprise two databases, namely the beneficiary database, and the project-specific database. Data were analysed according to the adopted evaluation framework, focusing on these core indicators:

- ◆ Job creation
- ◆ Average income earned by employees
- ◆ Skills transfer
- ◆ Access to employment opportunities
- ◆ Change in livelihoods
- ◆ Gaps and opportunities for future investment

Phase 3: Reporting

Once data collection and impact analysis had been completed, this integrated comprehensive research report, inclusive of analysis findings and interpretations, was prepared in order to provide an understanding of the economic impact of government housing programmes since 1994. This report contains:

- ◆ An analysis of the economic impact of key housing delivery strategies
- ◆ Impact assessment, focusing on all the variables that measure the economic impact of the programme, including the sectoral multiplier effects of the programmes to the overall economy
- ◆ Recommendations on how government investment for provision of shelter, particularly for the poor, should be directed



ANNEXURE B

Economic impact modelling approach

The purpose of this section is to indicate the process followed in order to quantify the economic impact of the National Housing Delivery Programmes.

Economic impacts are the effects on the economy of decisions by economic agents. This concept is illustrated in figure 1 below.

Figure 1: Illustration of the economic impact concept

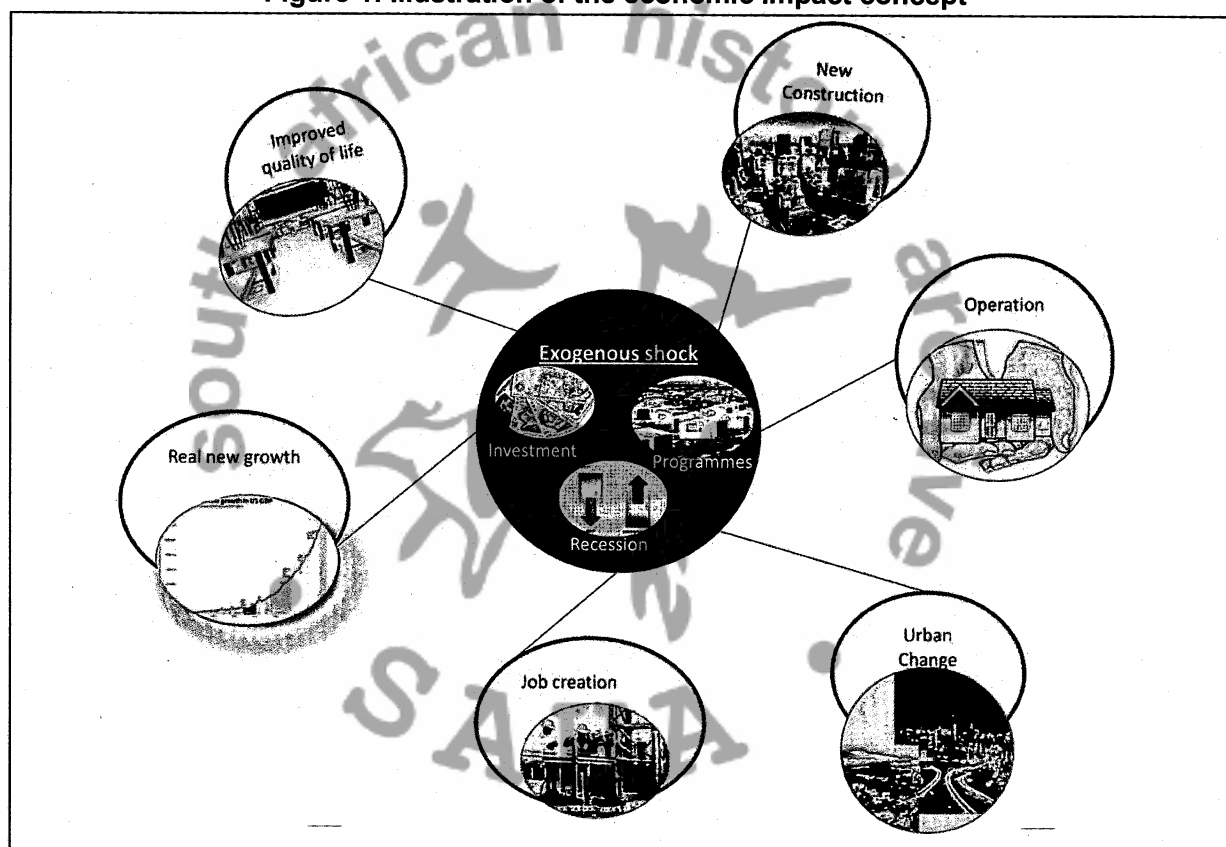


Figure 1 shows that any exogenous change, be it a recession, new investment or government programme, could result in a change to the economy. These economic impacts vary, and could include changes in employment levels, urban landscape changes, and economic growth.

Some of these economic impacts are easily quantifiable, while others are not. For example, improvement in the quality of life, indicated as an economic impact in figure 3.1, can be described as a subjective variable, and thus quantifying this impact is not easy. On the other hand, employment creation is much easier to determine, and therefore this impact can be quantified more readily. For

the purpose of this study the economic agent is government, and in particular the main decision maker is the Department of Human Settlements. The aim of this section is to conduct an economic impact assessment (EIA) to measure/quantify the effect of the decisions made by Department of Human Settlements and other departments in providing affordable housing in South Africa.

These economic indicators have been selected to measure/quantify the effects of the National Housing Programme:

- ◆ **Production:** According to StatsSA, (Concepts and Definitions for Statistics South Africa, 2010) production is defined as the process, carried out under the responsibility, control and management of an institutional unit, in which labour and assets are used to transform inputs of goods and services into outputs of other goods and services. All goods and services as outputs must be such that they can be sold on markets, or at least be capable of being provided by one unit to another, with or without charge. The level of production of various goods and services related to housing construction was required to increase in order to implement the National Housing Programme. Thus the economic impact assessment will measure the change in the level of production owing to implementation of the housing programme. Simplistically stated, the EIA measures the changes in the level of production for various goods and services in order to meet the demands required to implement the National Housing Programme.
- ◆ **Gross national product (GNP):** According to the National Spatial Development Perspective (2006), 'gross national product' refers to the total value of all final goods and services produced by a nation in a specified period (generally expressed quarterly or annually), plus the income earned by local residents in other countries through foreign investments, minus the value of income earned by overseas residents in the domestic economy. For the purpose of this study, GNP is the same as gross domestic product (total value of final goods and services produced by a nation in a specified period) as it is not expected that the housing programme will generate income for non-residents or residents in other countries.
- ◆ **Employment created:** The implementation of the National Housing Programme resulted in the creation of employment opportunities. The nature and term of the employment opportunities created, particularly those jobs created directly by the housing programme, may not necessarily be sustainable/long-term employment opportunities. This is so because it was estimated that on average it takes one person 3.1 man months⁵⁶ (13 weeks) to complete one housing unit. The short-term nature of some of the jobs also has an implication on the way the Economic Impact Assessment identified the number of jobs created based on the National Housing Programme. The Economic Impact Assessment results are not presented for the number of jobs created for a couple of weeks but instead it is presented for the number of jobs

⁵⁶ A man-month is equivalent of the amount of work that is performed by one person in a month. It reflects the productive effort made by one person in a 4-week period, assuming five days of work per week and eight hours of work per day.

created within one year (or 44 weeks). As a result even if for example within a given year 155 persons in total were employed, each of whom had to build one house each, the results of the Economic Impact Assessment will indicate that 50 employment opportunities were created. For the sake of this example one employment opportunity created per year is equal to about 3.1 actual jobs (155 divided 50). As such if a job has been created for less than a year it is not calculated as an individual employment opportunity instead the combination of various short-term job opportunities are added together to calculate the number of jobs created within one year. Therefore the results that are presented based on the Economic Impact Assessment, particularly for the construction related jobs are unlikely to reflect the actual number of jobs created but rather the employment opportunities created per year based on the assumption that one employee works for 3.1 man months to complete one housing unit.

- ◆ **Income created:** The implementation of the National Housing Programme increased the demand for goods and services, resulting in higher production and employment. This therefore created an increase in the level of income. The change in income generated will also be indicated. The income created due to the housing programme will be defined in the latter sections of the report in terms of the main individuals and/or organisations that benefitted from it.

Economic indicators can be differentiated in terms of their direct, indirect and induced economic impacts. Examples of the types of impacts are illustrated in figure 2, while an explanation of the types of impacts is provided below:

- ◆ **Direct:** 'Direct impact' refers to the known/planned operating expenditure. An example is the increase in employment opportunities, such as the employment of construction workers that work directly on building the houses.
- ◆ **Indirect:** This effect may also be referred to as 'supplier impact'. The implementation of the housing programme is expected to increase demand for products and services from suppliers. An example is the increase in the manufacture of construction materials to meet the greater demand. As such, the production of construction materials is expected to increase.
- ◆ **Induced:** Induced impact may also be referred to as 'consumer/household impact'. An example is the increased level of incomes that may be attained by employees who, as a result, would increase their demand for goods and services.

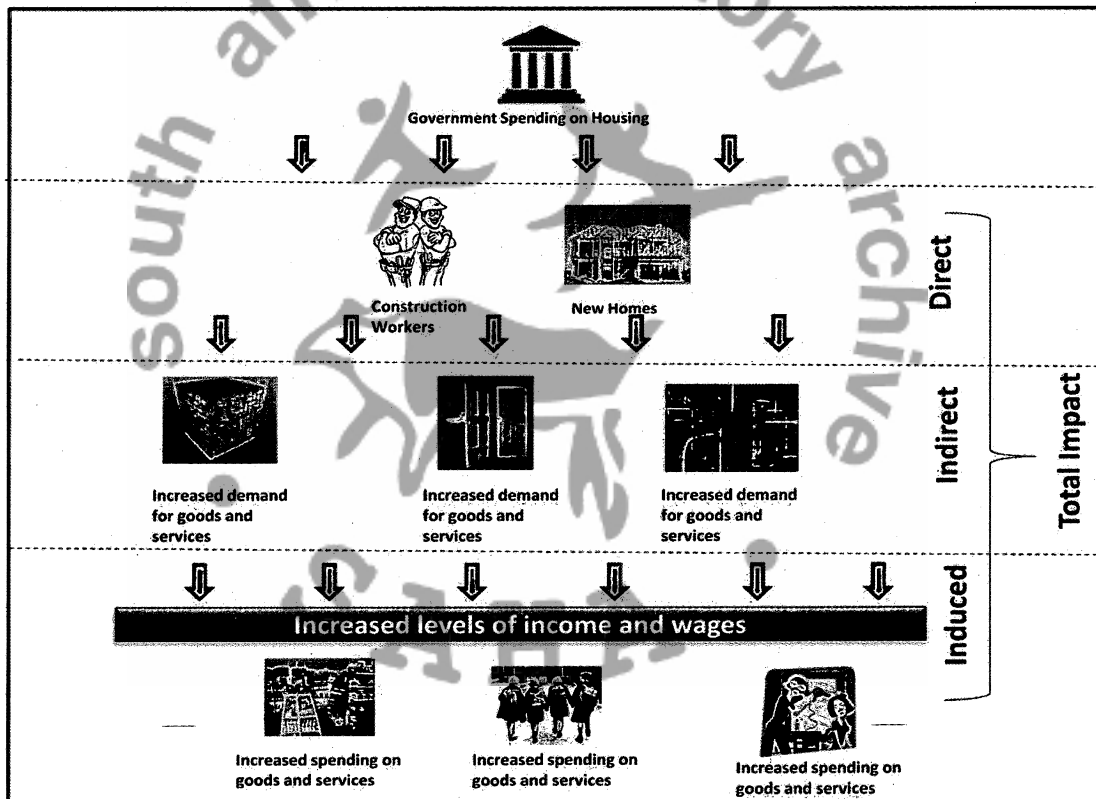
Furthermore, the different types of impact are expected to occur in two phases, namely the capital expenditure (CAPEX) phase and the operational expenditure (OPEX) phase. Each of these phases is defined below:

- ◆ **CAPEX:** This type of expenditure occurs during the construction period. Traditionally CAPEX could be described as less sustainable relative to operating expenditure. It occurs for a relatively shorter timeframe and can be described as the development phase of the project.

However, CAPEX in the context of the National Housing Programme cannot be classified precisely using the traditional/general definition, mainly because of the nature of the housing programme. In this instance CAPEX refers to all expenditure relating to the construction of the houses that has occurred in the last sixteen years, and is expected to continue in the foreseeable future.

- ◆ **OPEX:** Operational expenditure is viewed as more sustainable, occurs for a longer timeframe, and takes place during the operating phase of a project. The operating expenditure related to the National Housing Programme includes maintenance and upgrading of the housing unit; purchasing of furniture and appliances that would not have been bought if the housing units had not been built; rental paid to the social housing institute; and expenses for basic services, rates and taxes paid to local municipalities.

Figure 2: Types of economic impacts



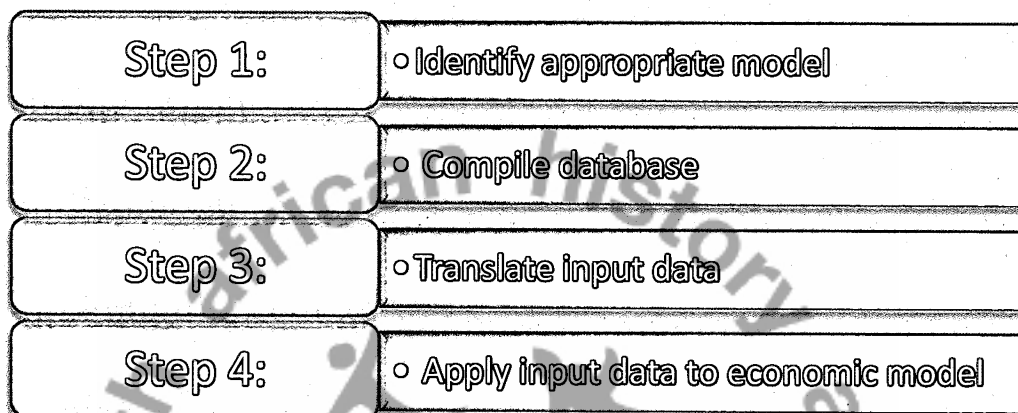
To quantify an economic impact, an economic model needs to be utilised. Various models are available, and given the data requirements, complexity, assumptions and limitations, the most appropriate model will be selected.

To quantify the impact, a database of current expenditure and number of dwellings (completed or in the process of being completed) must be developed. To allow for meaningful analysis, the data must be translated or converted to the same year. Distinction will be made between the capital

expenditure phase and the operational expenditure phase. As far as the operational expenditure is concerned, use will be made of parameters obtained through the primary data collection.

To be more specific, four steps are involved in conducting an economic impact assessment and each of these steps is outlined in figure 3 below.

Figure 3: Methodology for the identification of the National Housing Programme impact assessment



Step 1: Identify appropriate model

Economic impact assessments are conducted utilising an economic model. An economic model can be described as a simplified representation of the current reality. These models are useful tools in understanding economic changes although they do have limitations. The general limitations associated with economic models are as follows:

- ◊ **Assumptions:** Most models require the use of assumptions because there is always uncertainty when estimating or predicting impacts/changes.
- ◊ **Data availability and quality:** The lack of the required data may substantially limit the effectiveness of a model.
- ◊ **Dynamic nature of the economy:** The economy is always changing and thus is never in the state of *ceteris paribus* (ie everything else remaining equal) which could affect the effectiveness of the model.

There are a number of types of economic models. The most appropriate model would therefore need to be selected. In doing so, two models, namely the input/ output model and the computable general equilibrium model, will be examined. These models will be examined in terms of their model-specific limitations as well as their model-specific strengths/advantages. Each model will be discussed below.

Input-output (I-O) modelling

This model consists of an input/output table, which quantifies the transactions between the sectors in an economy, and presents the relationship/linkages between these sectors. Input/output tables allow for the identification of the quantity of inputs required by one sector from another. This allows for the identification of multipliers and understanding the relationships between the different sectors. Input-output analysis is a long-established technique that originated in the 1940s with Leontief, and is a popular mean of assessing economic impacts.

The input-output model would be compiled through the use of the social accounting matrix (SAM) data. SAM is a comprehensive, economy-wide database. It is a representation of the national accounts in a matrix format, incorporating various agents in the economy (Conningarth, 2007). This database contains information regarding the flow of resources that takes place between the economic agents in an economy, such as business enterprises, households, and government, usually during one calendar year. The economic agents that are contained in SAM are represented in accounts. The six main accounts in SAM are:

- ◆ Commodity accounts: capture value of goods and services traded in an economy and foreign market
- ◆ Activity accounts: capture value of goods and services produced in an economy
- ◆ Factor accounts: capture value of payments to essential factors of production (land, labour, capital)
- ◆ Institutional accounts: capture value of transactions by businesses, households and government
- ◆ Capital accounts: reflect savings and investments
- ◆ ROW accounts: capture value of imports and exports

The advantages and limitations of this model are discussed below.

Advantages of input-output analysis

- ◆ It provides a comprehensive view of a given economy.
- ◆ It focuses attention on sectoral interdependencies, that is, the relationship between the sectors.
- ◆ It has a flexible structure, allowing for researcher decision making, such as aggregation choices.
- ◆ It reduces subjectivity through the uniform treatment of sectors.
- ◆ It provides for direct, indirect and induced levels of impact. That is, it allows for differentiation between the types of impacts.
- ◆ It has led to improvements in data availability.

(Fletcher, 1989; in Daniels, 2004:75)

Limitations associated with input-output analysis

These are among the criticisms facing input-output analysis:

- ◆ This model fails to take supply constraints and price effects into consideration (Madden, 2002). However, this limitation is not expected to negatively affect the assessment of the housing programme as this project may be described as 'non-market related'.
- ◆ It is data and labour intensive (Daniels, 2004).
- ◆ It fails to adjust demand sales for margin activities (Henry and Johnson, 1993 in Daniels, 2004).
- ◆ It does not define the area of interest (Crompton, 1995; in Daniels, 2004).
- ◆ It does not take possible displacement effects into account (Crompton, 1995 in Daniels, 2005; Kirkup and Major, 2006).
- ◆ There are potential inaccuracies owing to a lack of knowledge (Crompton, 1995 in Daniels, 2005).
- ◆ Impact results could be overestimated (Daniels, 2004) owing to the use of incorrect multipliers (Baade and Matheson, 2004; Kasimati, 2003).
- ◆ It is possible to mistake all employment impacts as full-time employment.
- ◆ It is incapable of measuring most of the negative impacts (Kirkup and Major, 2006).
- ◆ Input-output models, for example RIMS, IMPLAN, need a realistic estimate of primary impact in the area, and available data is insufficient in many cases (Preuss et al, 2007).
- ◆ Some calculations could be missed if fixed technical coefficients are outdated.

To summarise, the input-output analysis enables a comprehensive overview of a given economy. This model allows for the identification of the relationship between sectors in a given economy and it distinguishes the types of impacts that occur. However, this analysis is not without its limitations. In particular, overestimation of the impacts could occur if the correct multipliers are not identified.

Computable general equilibrium models

The computable general equilibrium model incorporates an input-output (I-O) framework, but also models markets for goods and services, as well as factor markets; recognises resource limitations; models consumer spending; allows for government spending and taxing; and takes external constraints into consideration (Dwyer *et al*, 2004:9). CGE models thus combine input-output structure and behavioural functions (Kasimati, 2003).

Advantages in using the CGE

- ◆ It provides a complete representation of the economy.
- ◆ Many of its assumptions can be varied and a sensitivity analysis can be conducted.
- ◆ It allows for the inclusion of constraints not measured by an I-O analysis.

- ◆ It generally contains a high degree of empirical content.
- ◆ It allows for detailed inter-industry analysis together with supply-side constraints and an active price mechanism.
- ◆ It Includes more general specifications of the behaviour of consumers, producers, investors and employees.
- ◆ It provides more flexibility in allowing for macroeconomic policy stances of government.
- ◆ CGE modelling estimates economy-wide effects (Madden, 2002).

Disadvantages in using the CGE:

- ◆ More assumptions are made than an I/O analysis.
- ◆ it can be costly and time consuming to build and complicated to use.
- ◆ CGE analysis focus is on state-wide or economy-wide impacts rather than smaller local impacts.
- ◆ Sometimes I-O and CGE analyses come up with changes in activity of a similar order or magnitude and this does not justify the use of the more costly CGE model (Dwyer *et al*, 2004).

The CGE can briefly be described as a comprehensive model that incorporates the input/output framework while considering the other markets. However, the main challenges associated with this model are the high costs, time and data requirements.

Given these factors, the decision on which model to use depends on the availability of usable data in South Africa and the quality of the data, the purpose of the assessment, and the practicality/ease of usage of the model. The assessment of the models, based on these criteria, is indicated in table 1 below.

Table 1: I-O and CGE model assessment

	Input-Output Model		Computable General Equilibrium Model	
	Assessment value	Motivation	Assessment value	Motivation
Appropriateness of model	High	Model is used for impact analysis	High	Model is used for impact analysis
Availability of data	High	Freely available national data	Low	Data for use in the model needs to be sources/ derived
Quality of available data	High	National accounts compiled by StatsSA	Low	No data available
Ease of use	Medium	The model is relatively easier to use relative to the level of complexity for CGE model.	Low	High level of complexity

The input–output model utilising the SAM has been selected as the appropriate model to analyse the National Housing Programme impacts.

The main outcome of this step has been the identification of the input/output model (utilising the SAM) as the model to be applied to the input data in order to identify the economic impact of the National Housing Programme.

Step 2: Compile database

The purpose of this step is to compile a database. The main objective in compiling the database is to provide information about the housing programme. This means determining the costs associated with the programme, quantifying the costs for each of the factors, and identifying the number of dwellings built. This database relates to the total housing programmes that have been implemented and still being implemented for the 1994–2010 period. This data was obtained from the Department of Human Settlements.

Note the following regarding the input data:

- ◆ The main focus of the data relates to the provision of housing by the Department of Human Settlements. However, other departments and role players are involved in supporting or assisting in the provision of housing in South Africa. Contributions related to spinoff effects from other institutions such as local municipalities and other government institutions were identified.
- ◆ The expenditure occurred relates to the expenditure of 16 years and would therefore need to be adjusted to a 2010 value taking inflation into account. This is necessary because taking the expenditure for different years at their monetary value prevents accurate comparison of the data.
- ◆ Where detailed data was unavailable, certain parameters were identified in order to enable an estimation of the required input data over these last 16 years. The parameters have been identified through a number of sources, which include local municipality surveys, contractor surveys, household surveys, provincial surveys and the subsidy quantum. These parameters are discussed below.

'Capital expenditure parameters' mean all those factors that have been identified to assist in calculating the capital expenditure for the National Housing Programme. The capital expenditure parameters utilised include:

- ◆ The average number of persons employed is 3.1⁵⁷ workers per unit per month.
- ◆ The average wage of employees is R135⁵⁸ per day per worker.
- ◆ On average, approximately 25% of total expenditure⁵⁹ is used on labourers, 63% on materials and 12% on other.

⁵⁷ Kayamandi Contractors project specific survey, 2010; n=11

⁵⁸ Kayamandi Contractors project specific survey, 2010; n=8

- ◆ Average contractor's profit is 5%⁶⁰ per unit.
- ◆ The average split in expenditure per unit is 30% on services and 70% on top structures.
- ◆ Capital expenditure contributions by organisations other than the Department of Human Settlements in supporting the National Housing Programme have been identified and quantified. These contributions are:
 - The local municipality is believed to have contributed towards the socio-economic facilities, such as schools and health facilities, bulk infrastructure, and services. The estimated costs incurred by the local municipality for the socio-economic infrastructure are an average of R93⁶¹ per unit, while the estimated cost of contribution towards the bulk infrastructure as well as to line services is R437⁶² per unit from 1994 to 2004; R437.00 plus an additional 10% of total expenditure per unit from 2005 to 2006 (to represent the expenditure on land) and R22 000.00 per unit (to represent expenditure on services separate from top structure expenditure) plus 10% of total expenditure from 2007 to 2010.
 - Other departments, such as the Department of Education and the Department of Health, contributed on average R900⁶³ per unit towards socio-economic investments.
 - Housing beneficiaries need to contribute financially towards their homes, although limited financial contribution has been obtained. On average beneficiaries contribute an estimated R1 076⁶⁴ per unit immediately after occupation for upgrading, extensions, and improvements to the unit, such as plastering and painting walls, creating internal divisions, inserting ceilings.

Operating expenditure parameters are all those factors that have been identified to assist in calculating the operating expenditure for the national housing programme. Operating expenditure parameters include:

- ◆ Beneficiary maintenance amounts to R180⁶⁵ per unit per annum.
- ◆ Beneficiary expenditure on durable goods such as furniture and appliances amounts to an average of R540⁶⁶ per annum per unit.
- ◆ Expenditure on rates and taxes (and rental in social housing) has also been identified as an operating cost. These costs/factors have been classified as operating expenses because they might not have been incurred if the National Housing Programme had not been implemented. The average income for rates and taxes (and rental) is R169⁶⁷ per month per unit.

⁵⁹ Kayamandi Contractors project specific survey; n=10

⁶⁰ Kayamandi Contractors project specific survey, 2010; n=10; and in line with the Subsidy Quantum from the Housing Code

⁶¹ Kayamandi Municipal and Provincial project specific survey, 2010; n=81

⁶² Kayamandi Municipal and Provincial project specific survey, 2010; n=81

⁶³ Kayamandi Municipal and Provincial project specific survey, 2010; n=81

⁶⁴ Kayamandi beneficiary survey, 2010; n=772

⁶⁵ Kayamandi beneficiary survey, 2010; n=772

⁶⁶ Kayamandi beneficiary survey, 2010; n=772

⁶⁷ Kayamandi beneficiary telephonic follow-up and confirmation survey, 2010; n=56

The main deliverable of this step was the **compilation of a database** that indicates the extent of the National Housing Programme.

Step 3: Translate input/base data

The data identified in the first step assists in providing an indication of the various costs related to the National Housing Programme. However, the base/input data may be described as incomplete as it cannot be used in the economic models. As such, the base data is adjusted in this step.

First, as the input data/base data collected relates to different years, the raw data itself is not comparable. As a result, the data for all years need to be adjusted to current (2010) values. therefore taking into consideration the inflation rate for each year during the 1994–2010 period. Figure 4 indicates the adjustment factor and calculations that were applied to the real expenditure in order to transform the data to 2010 values.

Figure 4: Adjustment factor

Budget Year	Real Expenditure by the DHS for EC	Inflationary Adjustment Factor*	Expenditure @ 2010 values
	R'000	Adjustment Factor	R'000
1994/95	R 60,500	0.42	R 144,801,098.9
1995/96	R 64,300	0.45	R 143,489,139.3
1996/97	R 133,000	0.49	R 273,277,358.5
1997/98	R 274,300	0.52	R 526,830,158.7
1998/99	R 387,100	0.55	R 707,301,845.6
99/2000	R 325,200	0.58	R 563,921,656.1
2000/01	R 471,400	0.61	R 773,124,397.6
2001/02	R 293,242	0.67	$=((D24/P24)*1000)$
2002/03	R 465,014	0.70	R 660,235,001.3
2003/04	R 792,623	0.71	R 1,109,468,440.9
2004/05	R 572,843	0.74	R 775,903,018.7
2005/06	R 607,719	0.77	R 786,927,456.6
2006/07	R 636,899	0.83	R 769,550,733.6
2007/08	R 397,248	0.92	R 430,450,817.9
2008/09	R 981,016	0.95	R 1,036,204,087.0
2009/10	R 1,313,312	1.00	R 1,313,312,000.0
Total 1994 to 2010	R 7,775,516		R 10,455,266,928

Furthermore, the following adjustments were made to the database:

- ◇ To differentiate costs into two distinct categories, namely CAPEX and OPEX
- ◇ To create a detailed database by applying/multiplying the identified parameters to the number of dwellings.

The deliverable of this step has been the **creation of usable data** that can be used to determine the economic impacts of the housing programme.

Step 5: Apply input data to economic model

By utilising the transformed database and applying it to the SAM input-output model, the direct, indirect and induced impacts are then determined. The results of this analysis are presented in the latter sub-sections of this section.

The main deliverable of this step has been to calculate the economic impacts of the National Housing Programme.

ANNEXURE C**Lessons from successful and unsuccessful projects**

Recommendations and lessons from successful and unsuccessful projects as obtained from interviews with officials from provincial departments, municipalities, and contractors, are provided.

Successful projects and criteria for success

The eradication of informal settlements is considered highly successful, and will assist with accelerating housing delivery. However, because people are increasingly aware that informal settlements are being eradicated, they also know that if they are living in an informal shack, they will be prioritised, and informal settlements are mushrooming as a result.

A register should be kept of all informal settlements. Informal settlements must be counted and 'ring-fenced' (as is taking place in Gauteng). All new informal settlements that are not registered should then become the responsibility of the local government.

Generally **social housing** is regarded as being highly successful because it works through housing institutions, and because of the nature of the programme, in which these projects are positioned in economic opportunities. Increased demand and a strong future for social housing are also anticipated, in that many beneficiaries can afford to take out bonds or commit to long-term contracts. Government-subsidised rental helps bring people from **rural** areas into the city, therefore boosting the infrastructure of surrounding businesses. Social housing is considered to offer good value for money on the subsidy. For accelerated human settlement delivery, increased focus on rental-type housing is required.

According to the managing director of a large construction company, the involvement of the municipality as developer has pushed the private sector out of low-cost housing (with the exception of social housing). Municipalities use a different risk structure. Private developers have a return on investment, and face risks, whereas the municipality as a developer does not have the same risk profile (government funding, staff with salaries, etc), therefore costs can escalate. For private sector developers to be able compete they must reduce their prices. Projects that were considered successful were IDT subsidy/grant-funded housing projects in 1992–1994, where communities designed their own houses and chose materials. This will only work in certain communities, however, where buy-in and willingness to participate are obtained.

Project-linked projects are reportedly considered successful in that they do not have many restrictions; they are more contractor oriented; and contractors are responsible for delivering houses from start to finish. This eradicates the mushrooming of squatter camps; beneficiaries are readily available; and projects are focused on eliminating the bucket system.

PHP projects are regarded as highly successful in that larger-sized houses are delivered because of the contribution from the community, and because of the community resource organisation (CRO), which represents the community during construction. According to Hadidah Developments, a recent study in Welkom showed that subsidy home owners were prepared to sell their homes for R3 500, while self-build home owners were able to sell for as much as R25 000 because half of the subsidy is self-invested. There is thus greater ownership, and the product is less imposed, compared with other housing programmes.

Key lessons from successful projects (based on interviews with provincial departments, sampled municipalities and contractors):

- ◆ Set a target rate for labourers, not a daily rate.
- ◆ Source finance at a competitive interest rate.
- ◆ Make sure sub-contractors can deliver.
- ◆ Always set agreements down in writing.
- ◆ Build houses soon after infrastructure/services have been laid. Bulk infrastructure must also be installed.
- ◆ Community participation and a CRO are key, as well as obtaining buy-in from the community and advising them clearly on their rights and responsibilities.
- ◆ Develop separate entrances for rooms for rental as part of housing units.
- ◆ Outsource gardening, cleaning, maintenance, etc, as a rule to residents of social housing.
- ◆ Educating housing consumers is key.
- ◆ Make sure that all beneficiaries are available before contracts are awarded, in order to sign happy letters.
- ◆ Have maximum inspection, with set timeframes for inspections. Inspectors should be available when needed.
- ◆ Assist SMME and B-BBEE contractors to source local supplies/materials (referring to municipalities). Local SMMEs and B-BBEE companies also require assistance with managing funds. Women contractors require support to obtain bank loans.
- ◆ Make the HSS system and the tender awarding system more fair and transparent.
- ◆ Provide accredited training and facilitate skills transfer, as opposed to on-the-job training.
- ◆ Set up provincial project management units.

Beneficiaries were queried as to how housing assistance projects (house, settlement, process, etc) can be improved. In the main beneficiaries reported that projects could have been made better if quality houses, suitable for human settlement, with proper finishings, were developed. Other comments from beneficiaries included:

- ◆ Maximum inspection must be ensured.
- ◆ Greater involvement and consultation with beneficiaries should be included in the design phase in order to discuss aspects relating to their needs, family size, etc.

- ◆ Tenders should not be given to family members of officials, because inferior-quality products result. Experienced individuals (contractors and inspectors) must be appointed so that failure to deliver does not occur.
- ◆ Proper provision and installation of basic services are required.
- ◆ More employment opportunities and economic activities are needed.
- ◆ More social amenities are needed, as well as improved infrastructure: tarred roads, schools, etc.
- ◆ Greater inspection and monitoring of the implementation process and quality control are required.
- ◆ Greater track should be kept of what beneficiaries do with their houses.
- ◆ Contractors must be strict with labourers to ensure that supplies are not stolen/sold.
- ◆ Community members should monitor projects more intensely.
- ◆ The tender process for SMME and B-BBEE companies should be fair and transparent.
- ◆ Beneficiaries should be allowed to choose their houses from a number of designs.
- ◆ Improved internal fixtures are necessary, such as bathtubs inside the dwelling, kitchen and bathroom sinks, taps, toilets, geysers, ceilings, tiled floors, and burglar bars for security.
- ◆ Police services should be available close to each settlement.
- ◆ Airbricks or some form of ventilation should be provided.
- ◆ Houses that are shown should not be different from those that are to be delivered to the community.
- ◆ Nepotism/favouritism must be avoided in awarding contracts.
- ◆ Beneficiaries that are not available during the hand-over period should be given a limited period in which to do so. After that, the next available beneficiary should be given the house.
- ◆ Local labour is scarcely used, with minimal employment creation opportunities.
- ◆ Corruption must be fought and fraud investigated.
- ◆ Access to land and services should be provided at a faster pace so that more beneficiaries can build decent housing for themselves
- ◆ Properties should have walls or fences with a gate.
- ◆ Beneficiaries should be assisted in obtaining funding for houses.
- ◆ The poor should be aided so that they do not become comfortable with poverty.
- ◆ Standardised houses should be built for everyone.
- ◆ Contractors constantly sell construction materials such as cement to bystanders and replace materials with soil. This needs to be addressed.
- ◆ Government officials are noted for selling houses illegally.
- ◆ Community forums should be set-up in all projects to fight crime.

There are advantages and disadvantages to proper finishings in the house, such as tiles, cupboards, and extra plugs. Finishing a house can be one of the most expensive elements of the

unit. For the same outlay a 30-m² house can probably be built with all the desired finishes, or a 40-m² house without any finishings. The latter is a better option in the long run, as it is relatively inexpensive to lay tiles on a floor, compared with extending a house. If a ceiling with proper insulation will ensure fewer cases of pneumonia and other illnesses, there are definite arguments for it. The Department of Health's medical expenses might be reduced if houses are finished properly, as it will be warmer inside, and there will be less dust inside the unit if a ceiling is installed.

Unsuccessful projects and key lessons to be learned

The NHBRC is not equally efficient in all provinces. In some provinces it has been reported that the NHBRC is often absent, or inspectors lack technical expertise and do not fully know the NHBRC regulations. In North West a provincial project management unit has been established which inspects all houses. This works very well, and should be duplicated in other provinces. There is an overlap in responsibilities, so neither the Department nor the NHBRC nor municipal inspectors are willing to approve or reject units.

A key problem concerns site layouts that are provided by the province at the beginning of projects. Specifications on the drawing do not correlate with those on the ground, and municipalities do not always specify what is required from the contractors in terms of water and sewer connections, which differ substantially per municipality.

Cash flow in low-income housing projects is a key problem. Larger construction companies can withstand late or non-payments, but smaller and emerging contractors – who are increasingly being targeted as part of wealth distribution – can be ruined owing to late payments because suppliers and workers must be paid monthly. One of the larger construction companies proposed that a trust account should be used, from which money can easily be drawn once inspectors are satisfied and give the go-ahead.

Many provincial departments, contractors and municipalities believe that **PHP** projects do not work successfully because there are problems in getting the contributions from the beneficiaries. Most end up as managed PHPs, where a contractor is appointed and 'disguised' as a community representative. Contractors lack control, but are still liable for the project. PHP projects are fraud friendly, with no strong guidelines, PHP projects easily become blocked, and because the programme is people driven, people often pull out in the middle of the process. The problem thus relates to over-control versus trust. The PHP process is inflexible, and inspectors destroy the feelings of ownership through over-regulation. More flexible building planning requirements in PHP projects are suggested.

In the Western Cape **PHP** programmes are being promoted, and as a result housing quality remains a challenge. Ideally provincial departments should move to the enhanced PHP (CRO) programmes, in which PHP organisations are NHBRC registered. Unfortunately, developers are not capacitated for this yet.

Provincial Departments revealed that **social** housing is very expensive and funding is not readily available. Municipal officials in the Eastern Cape raised the problem that social housing institutions may face future vacancy rates as demand shifts to two-bedroom units. There may also be problems with cost recovery and future maintenance. Tenants increasingly want to own property, but they fall into the affordability gap, and are not able to pay more rent to buy. 'Downward raiding' is taking place, in that in demand in social housing is satisfied from top down. Increased ownership should be considered to prevent this from happening. Many municipalities have their own rental stock, which they find difficult to maintain and manage. It is becoming a cost burden because as additional units are added, the previous units do not fall away, and an ever-increasing personnel component is required.

Individual subsidies lead to queue jumping by beneficiaries, which is not in line with housing allocation policy.

Municipal perceptions of aspects that are missing or are not addressed well enough in terms of economic impact:

- ◆ Delay in releasing business stands is a major issue, as well as the inability of the municipality to create sustainable economic projects.
- ◆ Provision of services is not addressed well enough in terms of economic impact. It has become uneconomical for the municipality to generate income.
- ◆ Beneficiaries abandon their houses and move back home because they had only temporary work in the area where the house was built. Employment opportunities need to be addressed.
- ◆ Key strategies/goals are not being followed. House structures remain poor and constantly need fixing. The quality of houses is such that they cannot be called an asset. There is no capacity to provide procurement assessment from government.
- ◆ Contractors are not locally based, and thus do not leave a legacy or impact when the project is over. Contractors make all the money, and the community is left with houses. Locals must be prioritised in procurement.
- ◆ Subsidy houses should be developed around economic centres, so that people are able to find work closer to home.
- ◆ Unaccredited municipalities are not involved in the housing programmes apart from the provision of land and bulk services. What is required from all parties is 100% involvement of the local municipality in all the steps taken throughout the housing projects, whether they are accredited or not.
- ◆ Beneficiaries' mindsets must change and they must no expect the municipality to carry out maintenance. Housing is the creation of wealth on its own.
- ◆ Integration of beneficiaries and community involvement at early stages are not addressed well enough.
- ◆ It is common for beneficiaries to sell their houses before the end of the stipulated resale

restriction. Only a few use their houses to build onto and progress economically.

- ◆ The national housing policy is not revolving around or linked to longer-term financing. The municipality should be able to sell houses (for instance if beneficiaries cannot be traced) at 30% of the value in order to get some money back. This would increase the delivery of housing units. The municipality should be able to lend money against future allocations (loans based on this should be made available).

Key reasons for unsuccessful projects:

- ◆ Quantity is still considered over quality.
- ◆ There is no proper planning and management.
- ◆ Coordination within the municipality is poor.
- ◆ There is too much political interference.
- ◆ Beneficiaries' participation is limited.
- ◆ Funds are mismanaged by municipalities
- ◆ Lack of legal processes concerning land and registration of title deeds
- ◆ Stands are sold illegally.
- ◆ Some beneficiaries move back to squatter camps in the hope of getting another subsidy house to sell.
- ◆ Beneficiaries are approved in areas with no services.
- ◆ Beneficiaries are not available to sign happy letters.
- ◆ There are delays in the approval of subsidies.
- ◆ There are delays in contractors' payments
- ◆ Illegal occupation of houses and lengthy reaction results in the eviction process becoming difficult.
- ◆ Infrastructural services are uncoordinated.
- ◆ Monitoring and inspections are inadequate.
- ◆ Scale of projects is not always cost effective/efficient. It is not economically viable to build a handful of houses.
- ◆ Inspection delays are constant and resultant price hikes have to be absorbed.
- ◆ Site layouts do not correlate with those on the ground.
- ◆ Municipalities do not specify what is required of the contractor in terms of water and sewer connections. Every municipality uses different specifications.
- ◆ Contractors' cash flow in low-income housing projects is a problem. Large companies can withstand late payments or non-payments. but smaller and emerging contractors can be ruined because of late payments.
- ◆ There is a lack of project management skills in provincial departments.
- ◆ PHP projects mostly end up as managed PHPs, where a contractor is appointed and disguised as a representative for the community.

- ◆ Social housing or rental stock is a possible financial burden to provinces and municipalities.
- ◆ Downward raiding is taking place in social housing in that the demand in social housing is satisfied from top down.
- ◆ There are delays in releasing business stands.
- ◆ It has become uneconomical for municipalities to generate income from service delivery.
- ◆ The selection of local-based contractors and local spending are not being enforced.
- ◆ The importance of local job creation is often overlooked.
- ◆ EPWP procedures are not being enforced and followed at all times.
- ◆ Municipalities are finding it difficult to become accredited to oversee all aspects of delivery.
- ◆ Beneficiaries cannot maintain their assets.
- ◆ There is a lack of integrated planning and support from all the departments in the municipalities.

Remedial actions to rectify unsuccessful projects (as noted from provincial, municipal and contractors' responses):

- ◆ To avoid or respond to illegal housing occupations, surveys of beneficiaries occupying houses need to be undertaken with verification of approval status and possible title deed information, etc. Discrepancies noted from such surveys then must be dealt with. That is, beneficiary administration is important.
- ◆ Contractors can make a big difference in communities by giving beneficiaries life skills and opportunities to further themselves in life through training.
- ◆ Instead of giving tenders out to HDIs, especially large-scale projects, established contractors should be appointed to manage projects, and then be enforced (and monitored) to use HDIs as sub-contractors. This agreement should be stipulated in the contract, and specify the targets that each sub-contractor should obtain, who is responsible for handling logistics, etc.
- ◆ A trust account should be developed from which money can be drawn once inspectors are satisfied.
- ◆ The ideal project type is a mix between PHP and project linked to ensure fast delivery of quality homes. Departments should move to the enhanced PHP (CRO) programme in which PHP organisations are NHBRC registered.
- ◆ Quality assurance needs to be in place to monitor developers and government (as in Gauteng) and ensure that problems are identified and rectified immediately. Weekly site meetings must be introduced with the department, inspectors, the municipality and contractors.
- ◆ Municipalities should be able to sell houses when the beneficiaries cannot be traced, at 30% of the value, in order to get some money back
- ◆ Better coordinated planning in the municipality on housing projects is required.
- ◆ Better beneficiary education is needed.

ANNEXURE D

Base data

The purpose of this section is to examine and understand the input data.

The Housing Subsidy System (HSS) database was intended to be used as the study sample frame. At the time of the survey, this database contained 7 796 project entries with the following data fields:

- ◆ **Location:** Province, district municipality, and local municipality
- ◆ **Project description:** Project phase and type, and subsidy instrument
- ◆ **Project approval date**
- ◆ **Planned units**
- ◆ **Budget**
- ◆ **Delivery:** Sites and houses completed, and expenditure.

However, when the HSS database was compared with official delivery and expenditure statistics (see table 1), it was evident that the database contained only about 69% of official housing delivery statistics and 67% of official expenditure.

Table 1: Housing delivery and expenditure comparison between HSS database and officially published statistics

	HSS database		Official statistics	
	Sum of houses completed	Sum of expenditure	Sum of houses completed	Sum of expenditure
EASTERN CAPE	182 002	6 431 598 668	259 352	7 775 516 000
FREE STATE	154 236	4 845 733 081	197 738	5 613 918 000
GAUTENG	364 076	10 338 910 080	590 543	19 676 252 000
KWAZULU- NATAL	269 355	7 187 257 135	418 172	13 253 665 000
LIMPOPO	151 759	3 757 354 822	179 673	6 030 828 000
MPUMALANGA	120 117	3 485 324 344	178 576	4 857 113 000
NORTH WEST	137 915	5 595 640 571	212 375	6 540 173 000
NORTHERN CAPE	38 729	1 404 735 375	49 898	1 729 508 000
WESTERN CAPE	218 852	6 506 864 699	285 444	8 896 226 000
Grand total	1 637 041	49 553 418 775	2 371 771	74 373 199 000

See table 2 for detail and expenditure and delivery per programme as captured in the HSS.

Table 2 shows that according to the HSS database, social housing represents 41% of houses completed and 53% of expenditure. Based on discussions with department representatives, it was felt that this database does not provide a true reflection of the programmes. The HSS database was therefore utilised only to identify projects and not as a sample frame. A major limitation of the study was that a sample frame was not available, and therefore results could not be weighted. The table

also shows that use of the HSS database as a basis for assessing the impacts at provincial and national level posed numerous limitations to the research.

Table 2: Summary of HSS database per programme

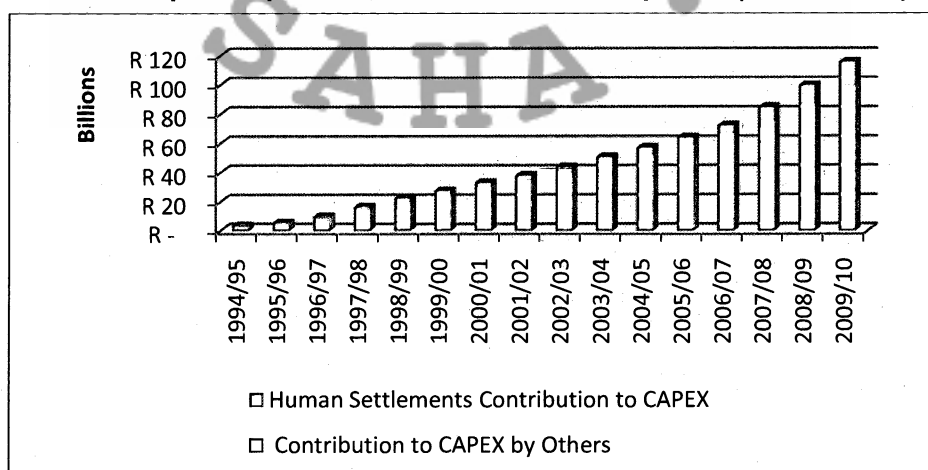
Grouped programmes	Sum of houses completed	Distribution of houses completed	Sum of expenditure	Distribution of expenditure
Consolidation	83 097	5%	1 245 907 430	3%
Emergency	5 261	0%	446 275 279	1%
Finance	530	0%	7 705 194	0%
Individual	12 724	1%	146 085 822	0%
NO DELIVERY	-	0%	157 134 569	0%
PHP	116 012	7%	4 088 737 757	8%
Project linked	382 563	23%	13 722 238 959	28%
Rural	61 519	4%	3 582 522 085	7%
Social	975 335	60%	26 156 811 680	53%
Grand Total	1 637 041	100%	49 553 418 775	100%

As such, official delivery and expenditure statistics was used to obtain an understanding of the scale and extent of the National Housing Programme in terms of the costs associated with the programme, the provinces in which the housing programme was implemented, and the changes and trends that have occurred in the last 16 years. Capital expenditure and operational expenditure input data will be analysed separately.

Capital expenditure analysis

Figure 1 below illustrates the cumulative capital expenditure for the National Housing Programme at constant 2010 prices for the 1994–2010 period.

Figure 1: Cumulative capital expenditure for the 1994–2010 period (2010 values)

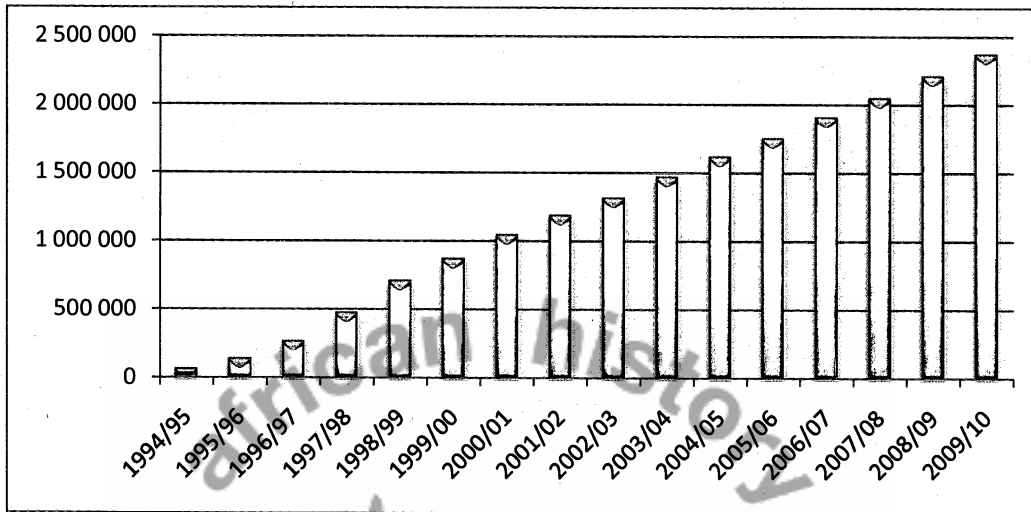


Source: Urban-Econ calculations based on Department of Human Settlements data and 2010 Housing survey

Figure 2 shows that a total of R115.56 billion in capital expenditure has been spent. Of the total capital expenditure, R99.41 billion was spent by the Department of Human Settlements and the

remaining R16.15 billion by other national departments, local municipalities, and the social housing institute. Capital expenditure has grown at an average annual growth rate of 10.3% in the last sixteen years.

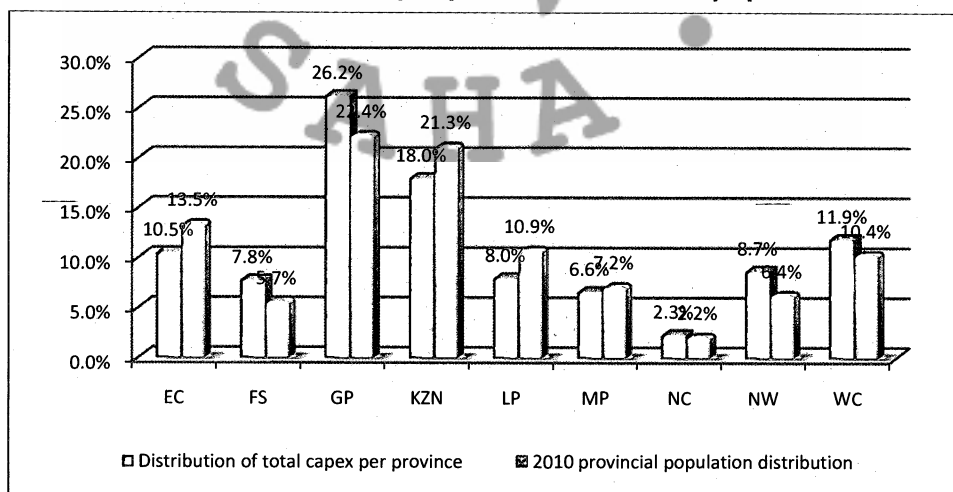
Figure 2: Cumulative number of dwellings constructed and site and services built



Source: UE calculations based on data obtained from Department of Human Settlements

The billions of rand that were spent translate into the construction of approximately 2.37 million houses for the 1994–2010 period, as indicated in figure 3.6. Given the 2010 mid-year estimate for the total South African population of 49 991 300 (StatsSA) and the beneficiary survey results that there are 4.6 persons per household, it can be assumed that National Housing Programme has resulted in the provision of homes for 21.8% (10 910 147 people) of South Africa’s population. Figure 3 illustrates the breakdown of the provinces in which the R115.56 billion was spent.

Figure 3: Capital expenditure per province relative to population for 2010



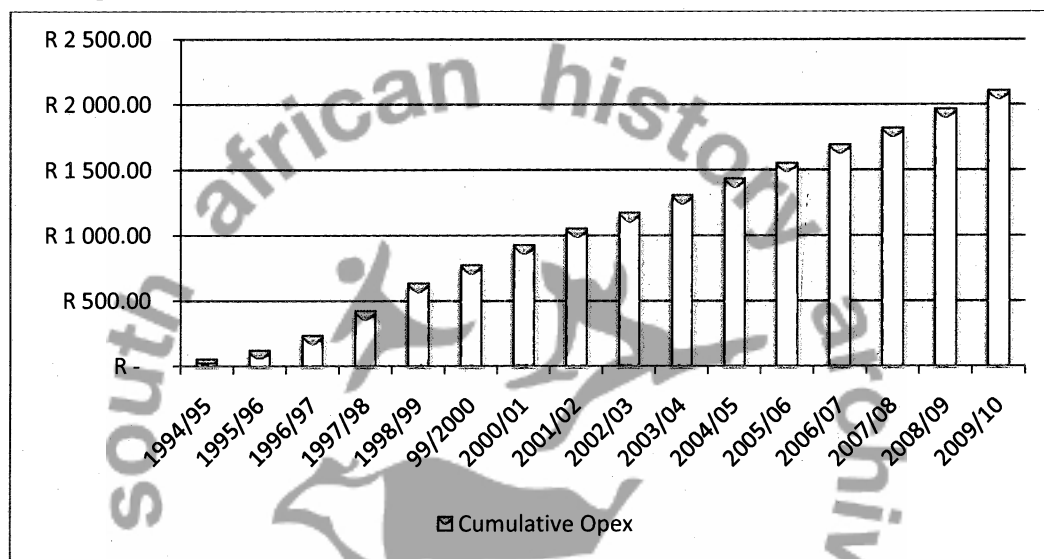
Source: UE Calculations based on data from Department of Human Settlements, 2010 Housing Survey and Quantec Standardised Regional Data, 2010

Figure 3 shows that the greatest proportion of capital expenditure for the housing programme was spent in Gauteng (26.2% of total capital expenditure), followed by Kwazulu-Natal (18.0%) and Western Cape (11.9%). The provinces that experienced the least capital expenditure are Northern Cape (2.3%) and Mpumalanga (6.6%). Figure 3 illustrates that in general the province with the greater population incurred a higher capital expenditure.

Operational expenditure analysis

The operating expenditure that was incurred in implementing the National Housing Programme is presented in figures 4 and 5.

Figure 4: Cumulative operational expenditure, 1994–2010 (2010 prices)



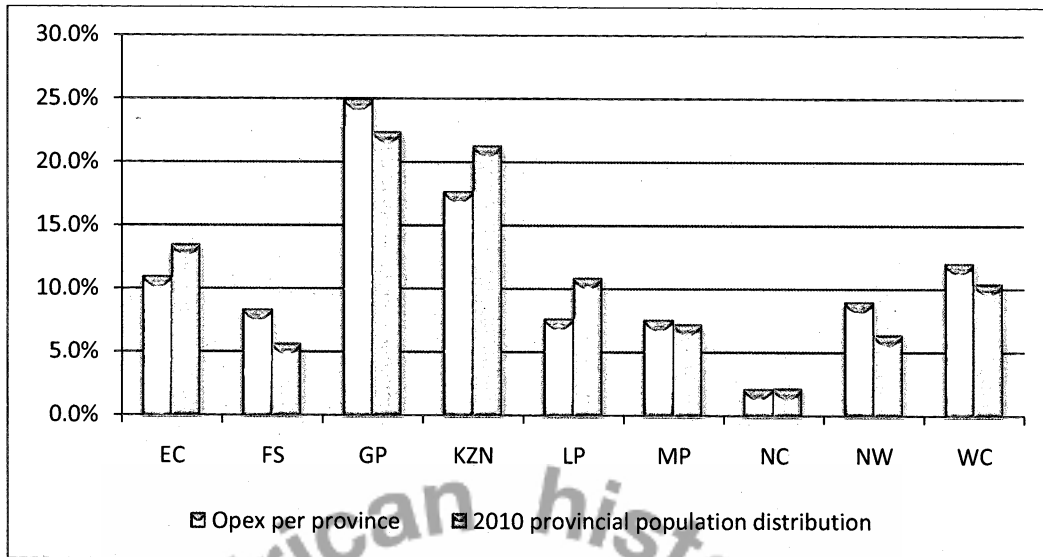
Source: UE Calculations based on data obtained from 2010 Housing Survey

The cumulative operating expenditure for the 1994–2010 period (illustrated in figure 4) indicates that the total operating expenditure at current 2010 prices is R2.11 billion. Operating expenditure refers to those expenses that would not have occurred if the houses had not been constructed. The operating expenditure consists of maintenance costs, expansion costs, purchases of furniture/appliances, services costs, rental expenses and rates and taxes. The operating expenditure is relatively smaller than the capital expenditure, although the operating expenditure will be experienced for longer period of time.

As indicated with the capital expenditure, the expenditure for operations has been spent mainly in Gauteng (25.7%), and KwaZulu-Natal (17.0%).

To summarise, the analysis of the input data indicates that totals of R115.57 billion and R2.11 billion had been spent on the construction of homes for the capital and operational expenditure phases of this programme, the result of which has been the development of 2.37 million houses.

Figure 5: OPEX per province relative to 2010 population



Source: UE Calculations based on data from 2010 Housing Survey and Quantec Standardised Regional Data, 2010



