FROM HOUSING TO HUMAN SETTLEMENTS

EVOLVING PERSPECTIVES

South African
CitiesNetwork

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ACKNOWLEDGEMENTS

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ABT	Alternative Building Technologies
AL&HDC	Affordable Land & Housing Data Centre
AMLSP	Accelerated Managed Land Settlement Programme
ASWSD	Accelerating Sustainable Water Service Delivery
BCM	Buffalo City Metropolitan Municipality
BEPP	Built Environment Performance Plan
BNG	Breaking New Ground
BRT	Bus Rapid Transit
BTO	Budget and Treasury Office
CA	Citizenship/Civic Academy
CDS	City Development Strategy
CFO	Chief Financial Officer
CIF	Capital Investment Framework
CIMS	Capital Investment Management System
CIP	Consolidated Infrastructure Plan
CIPA	Capital Investment Priority Areas
CMIP	Consolidated Municipal Infrastructure Programme

CRT	Community Research Team
CSIR	Council for Scientific and Industrial Research
CSVR	Centre for Study of Violence and Reconciliation
DAG	Development Action Group
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DHS	Department of Housing Settlements
DCoG	Department of Cooperative Governance
DoH	Department of Housing
DoRA	Division of Revenue Act
DPME	Department of Programme Monitoring and Evaluation
DRDLR	Department of Rural Development and Land Reform
DST	Department of Science and Technology
FFC	Financial and Fiscal Commission
FPA	Fire Protection Association
GDS	Growth and Development Strategy
GEAR	Growth, Employment and Redistribution

GGLN	Good Governance Learning Network		MLS	Managed Land Settlement
GIS	Geographic Information System		MPAC	Municipal Public Accounts Committees
GMS	Growth Management Strategy		MTEF	Medium-Term Expenditure Framework
HDA	Housing Development Agency		MWIG	Municipal Water infrastructure Grant
HDMS	Housing Delivery Management System		NDP	National Development Plan
HSDG	Human Settlements Development Grant		NDPG	Neighbourhood Development Partnership Grant
HSRC	Human Sciences Research Council		NEP	National Electrification Programme
HSS	Housing Subsidy System		NLTA	National Land Transport Act
ICDG	Integrated City Development Grant		NMBM	Nelson Mandela Bay Metropolitan Municipality
IDP	Integrated Development Plan		NMMU	Nelson Mandela Metropolitan University
IDT	Independent Development Trust		NPC	National Planning Commission
IHSP	Integrated Human Settlements Plan		NUSP	National Upgrading Support Programme
ILIS	Integrated Land Information System		PDG	Palmer Development Group
IPDM	Integrated Planning, Development and Modelling		PPMU	Programme and Project Management Unit
ISHSP	Integrated Sustainable Human Settlement Plan		PPP	Public-Private Partnership
ITP	Integrated Transport Plan		PSC	Public Services Commission
IWMP	Integrated Waste Management Plan		PTIG	Public Transport Infrastructure Grant
KZN	KwaZulu-Natal		PTISG	Public Transport Infrastructure and Systems Grant
LTDF	Long-Term Development Framework		PTNOG	Public Transport Network Operations Grant
MFMA	Municipal Finance Management Act		RDP	Reconstruction and Development Programme
MIG	Municipal Infrastructure Grant		RHIG	Rural Households Infrastructure Grant

SACN   South African Cities Network

SALGA   South African Local Government Association

SDBIP   Service Delivery and Budget Implementation Plan

SDF   Spatial Development Framework

SHP   Social Housing Programme

SHS   Sustainable Human Settlements

SHSUP   Sustainable Human Settlements Urbanisation Plan

SPLUMA   Spatial Planning and Land Use Management Act

SSPP   Sustainable Settlement Pilot Project

StatsSA   Statistics South Africa

StepSA   Spatial Temporal Evidence for Planning

TOD   Transit-Oriented Development

UDL   Urban Development Line

UISP   Upgrading Informal Settlements Programme

ULM   Urban LandMark

USDG   Urban Settlements Development Grant

WHO   World Health Organisation

WSDP   Water Services Development Plan

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PREFACE

The year 2014 marks the passing of a full generation of investments in the built environment to produce a more socially just, living environment for all South Africans. It reveals discernibly the human geographical fault lines of an inherited inequality in land and housing, and conditions that reproduce exclusion. Spatial fragmentation (and its application and incoherence) cannot be undone in a single span of 20 years (the global time horizon used to measure progress in the built environment). However, the past 20 years has seen a significant refining of housing and human settlement programmes and fixing of institutions for the building of new projects.

The co-production of our human settlements environment is centred on the consensus of the social contract contained in our Constitution, about redressing our inheritance, deconstructing the socio-spatial economic incoherence, and reframing for more socially just outcomes. Several pathways to a future defined by the National Development Plan (NDP) are proposed for co-producing a more equitable, just and vibrant set of human settlements. This timely publication aims to interrogate these pathways, the roles and the key factors that will have to be considered over the next 30 years to achieve the transformed future for South Africa, as highlighted in the NDP. Over this period, some critical considerations are:

- To learn from the previous 20 years in order to identify what needs to be done to unlock and catalyse the kinds of development that will transform urban space.
- To understand the notion of access and how citizens experience and navigate the city on a daily basis, so that interventions in human settlements, transport and economic development can contribute towards spatial transformation that enables poor communities to develop 'positive' economic and social investments.
- To know who bears the cost of development and who ultimately benefits from public investments in our cities, while recognising that investment on its own is not a panacea and that two critical issues should guide investment: (i) preventing the reproduction of ghetto economies, and (ii) consistent and effective urban management.
- To enable municipalities to fund development in their areas, in particular incorporating and growing poor areas as part of the overall city rates base.
- To allow for spatial planning and budgeting, which will require reviewing existing governance, institutional and financial arrangements, resolving distributional equity and determining the ideological framework for investments (is it about social returns or financial returns?) that reflect more of the social returns required by a developmental state.

The priorities set out in the NDP and the Medium-Term Strategic Framework for South Africa must guide and inform our interventions over the medium to long term. These set the parameters for funding and how resources are to be spent. The challenge is to determine the key strategic elements for cities over the next five years and to support cities in identifying these priorities and the required governance and institutional arrangements.

In this publication, it is important to distinguish between what is holistic and place specific. Place specificity is vital to the city's planning process and requires looking at the investment strategy that needs to be put in place, the aspects of existing programmes that should continue or be scrapped, and the financial framework and structure that will facilitate the effective and efficient delivery of interventions. In all this, the challenge is to ensure that the delivery of sustainable settlements by local government accords with the broader development agenda of the state to improve lives and secure future generations of South Africans.

Ahmed Vawda, Deputy Director General
Department of Performance Monitoring and Evaluation,
Presidency of South Africa.

INTRODUCTION

Stacey-Leigh Joseph and Geci Karuri-Sebina

THE WELL-KNOWN LEGACY OF APARTHEID PROVIDED THE BACKDROP FOR THE POLICIES AND INSTRUMENTS INTRODUCED AFTER 1994, WHICH WERE AIMED AT ADDRESSING THE CHALLENGES EMANATING FROM DECADES OF UNDERDEVELOPMENT AND DISCRIMINATION IN SOUTH AFRICA.

For the new democratic government, a critical priority was to deal with the lack of housing for black South Africans. Since the introduction of the 1994 White Paper on Housing (DoH, 1994), approximately 3.7-million housing opportunities have been created, ranging from the subsidised free-standing house to the more recent social and rental housing (The Presidency, 2014). This formidable achievement is perhaps unprecedented in its scale and approach.

Yet the lack of access to housing is a key reason for service delivery protests in South Africa, along with demands for economic access, inclusion and plans to address the growing inequality.[1] Furthermore, the housing provided has been on the periphery of cities, which reinforces the spatial legacy of apartheid. Not helping the situation is

1.   Allan K and Heese K. 'Burning issues at the core of community protests', *Sunday Independent*, 30 August 2009. Available online at http://www.municipaliq. co.za/publications/articles/sunday_indep.pdf.

the inability of government to establish an integrated, accessible public transport system, resulting in many poor communities remaining excluded from the benefits of the city. It is in this context that the National Development Plan (NDP) has identified the spatial transformation of South Africa's large cities and towns as the catalyst for transcending our apartheid legacy (NPC, 2012: 260). Key to transforming this spatial context is developing integrated and sustainable settlements that include adequate housing and shelter, as well as livelihood opportunities that build an active and engaged citizenry.

Over the past two decades, housing delivery has shifted from an emphasis on building houses to recognising the importance of providing access to resources and opportunities, which would facilitate active participation in the social and economic fabric of South Africa. This shift is illustrated by the introduction of the Comprehensive Plan for Sustainable Human Settlements (commonly referred to as BNG – Breaking New Ground) in 2004 and the renaming of the Department of Housing to the Department of Human Settlements (DHS) in 2009. Moving from this narrow conceptualisation ('housing') to a more holistic framing ('human settlements') requires considerable conceptual, political, and practical adjustment. This means reflecting on aspects such as:

- The meanings, components, outcomes, and measures of having made this shift.
- Citizen expectations of a particular kind of public housing delivery programme, making housing political and fraught with complexity.
- The intricate financial flows and institutional arrangements necessary for delivery.

- The ability of metros to deliver effectively on the broader conceptualisation of housing, in light of devolving the housing function to capable municipalities, which is currently underway.

This publication explores the housing and human settlements context in South Africa and the particular challenges and opportunities that will affect the delivery of sustainable human settlements (SHS). This will be informed by an understanding of the city as a settlement made up of components that together add to its successful functioning and also to its ability to give effect to spatial transformation.

EVOLVING CONCEPTS: 'HOUSING' TO 'HUMAN SETTLEMENTS'

THE HOUSING QUESTION HAS PREOCCUPIED SOUTH AFRICA SINCE THE 1955 KLIPTOWN FREEDOM CHARTER. FOLLOWING THE DEMISE OF APARTHEID, THE EVOLUTION OF HOUSING POLICY AND THINKING CAN BE SEPARATED INTO THREE PERIODS: 1994–2003; 2004–2009 AND POST-2010.

A housing policy framework (1994–2003)

The White Paper on Housing (DoH, 1994) provided the policy for a housing programme to address the acute shortage of quality housing in South Africa and was informed by some critical developments. These included the National Housing Forum (1992), which laid down the principles to inform a housing policy, and the 1994 Reconstruction and Development Programme (RDP), whose aim was to provide an 'improved standard

of living and quality of life for South Africans' and to build more than one million housing opportunities over five years (RSA, 1994b). The Constitution of South Africa (Act 108 of 1996) also enshrined the key tenets of providing access to the economy and society, basic services, quality health care and education and shelter. Specifically, the Constitution (S26(1)(2)) tasks the state with ensuring the right to housing by taking 'reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right' (RSA, 1994a).

The vision set out in the 1994 White Paper is 'the establishment of viable, socially and economically integrated communities, situated in areas allowing convenient access to economic opportunities as well as health, educational and social amenities' (DoH, 1994: 19). This includes progressive access to a permanent residential structure with secure tenure and basic service provision. The White Paper further outlines the key roles and responsibilities of the different levels of government in housing delivery: national and provincial spheres are primarily tasked with policy development and implementation, while local government has to identify and plan for suitable land, bulk infrastructure, provision of related community services and facilities, and create an environment suitable for housing delivery (DoH, 1994). The White Paper envisages a more significant role in the future for municipalities, which would be allowed to implement housing programmes in their areas by applying to the relevant provincial department. It notes that bodies similar to the provincial housing boards 'may also be justified in the larger metropolitan and local authority areas or in rural districts in order to devolve

the decision making and fund allocation processes to the closest local level' (DoH, 1994: 35).

Despite considerable housing delivery during the period 1994–2003, the housing policy was reviewed following various criticisms of the housing programme, which included:

- the cost of the housing product (for beneficiaries and the state),
- poor location,
- poor quality of housing, and
- poor integration with other socioeconomic facilities.

The most damning criticism of the housing programme was that the delivery of housing has not contributed towards spatial and economic transformation of cities and towns (DHS, 2004 cited in SACN, 2012). Some of the reasons for this lack of transformation were the high cost of suitably located land, the absence of a single property market that included subsidised houses, and insufficient private sector involvement. During this period, a growing number of households no longer qualified for subsidies (as their monthly income was above R3500) but were unable to access housing finance from the private sector, which expressed no interest in providing loans to this income category (SACN, 2012). Essentially, despite massive investment, the state had failed to drive the development of a property market that incorporated subsidised and affordable housing (for lower-to-middle income households) or to stimulate inclusive private sector engagement. Providing houses is not only about shelter but also about growing the value of the housing asset in order to eliminate generational poverty.

A policy shift – Breaking New Ground (2004–2009)

The introduction of the Breaking New Ground (BNG) policy represented the most important shift in the mandate of the Department of Housing to the delivery of 'human settlements', and reinforced the notions of spatial transformation and integration.

BNG defined SHS as 'well-managed entities in which economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity'. It identified the following objectives:

- Accelerate the delivery of housing as a key strategy for poverty alleviation.
- Use housing provision as a major job creation strategy.
- Ensure property can be accessed by all as an asset for wealth creation and empowerment.
- Leverage growth in the economy.
- Combat crime, promote social cohesion and improve the quality of life for the poor.
- 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.
- Use housing as an instrument for developing SHS that support spatial restructuring.

In spite of this broad specification, no guidance was given on how this expanded mandate could in reality be coordinated. In the absence of a planning ministry with a functional mandate, the Department of Housing (renamed the Department of Human Settlements (DHS) in 2009) could be regarded as the most logical coordinating function. However, such a department would have to coordinate both housing and those functions that contribute towards a sustainable settlement e.g. public transport, land-use planning and management, local economic development, health, education and social development. This presented a challenge, given the department's specific sectoral mandate of housing. Further complicating the challenge of coordinating and delivering the much broader human settlements mandate is the fact that housing is extremely political. Local politicians often use housing as electioneering/lobbying tools, while in turn social delivery protests are often associated with unmet promises, largely linked to housing.

An incremental approach (post-2010)

In 2009, the national DHS reviewed the BNG programme and found that the key focus remained housing (i.e. shelter aspect) rather than human settlements development. Some of the concerns raised included the measurement of housing delivery performance (which continued to be based on the number of houses built), the lack of public

participation, the location of housing (on the periphery of cities) and the alignment of funding for human settlements across different functions (DHS, 2009).

In response, new grant instruments were introduced: the Upgrading Informal Settlements Programme (UISP) and the Social Housing Programme (SHP). The UISP promotes an incremental (or phased), holistic and developmental approach to upgrading human settlements, while the SHP seeks to develop rental options aimed at people earning more than R3,500 who are unable to access mortgage finance. The SHP is also meant to address the provision of inner city accommodation, and urban restructuring and development.

Other subsequent funding instruments include: the Neighbourhood Development Partnership Grant (NDPG),

which was introduced in 2007 by National Treasury, with the aim of enabling a more integrated approach to local area development and catalyse active involvement and investment of the private sector in community economies (National Treasury, 2008); and the Urban Settlements Development Grant (USDG), which was introduced in 2010 as another attempt to facilitate more integrated design and development of settlements at local level. Considered the catalyst for improving implementation at local level and for unlocking urban spatial transformation, the USDG was essentially meant to 'supplement eligible municipalities' capital investment programmes for infrastructure development directly linked to human settlements development planning and implementation' (DHS, 2013). For more details on this grant, see Tshangana's chapter].

The effect of legal judgements on housing policy

The increasing role played by the judiciary has added to the challenges of this changing policy context. From the Grootboom case[2] in 2001 to the Blue Moonlight judgement[3] in 2011, a number of Constitutional Court cases have tested the housing policy and affected in particular the role of local government. In 1999 Irene Grootboom resorted to the courts after an eviction resulted in the evictees being left without alternative shelter. In a ground-breaking judgement, the Constitutional Court ruled that the state was not only responsible for providing medium to long-term responses to shelter but also had a responsibility for providing emergency shelter where the evictions resulted in no alternative shelter for evictees. The 2011 Blue Moonlight judgement took this a step further, when the Court ruled that the state (and local government in particular) was responsible for finding alternative accommodation, not only for people evicted from state property, but also for people evicted from private property. The Grootboom case led to a revision of the Housing Act of 1997, and a similar process will likely be followed to reflect the Blue Moonlight case, which will have critical implications, not only for settlement planning at the local level, but also for financial planning.

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2.   *Government of the Republic of South Africa and Others v Grootboom and Others* (CCT11/00) [2000] ZACC 19; 2001 (1) SA 46; 2000 (11) BCLR 1169 (4 October 2000).
3.   *City of Johannesburg Metropolitan Municipality v Blue Moonlight* (338/10) [2011] ZASCA 47 (30 March 2011).

SUMMARY OF THE KEY SHIFTS

As the previous section illustrates, over the past 20 years, the housing programme in South Africa has undergone a number of articulations. The RDP was the backbone of government policy from 1994 until 1996, when it was replaced by the Growth, Employment and Redistribution (GEAR) policy, which emphasised economic growth. This refocusing was considered a move away from the more inclusive developmental ideals of the RDP and criticised by some as a departure from the redistribution agenda towards a neoliberal focus that disadvantaged the very poor (Reitzes, 2009). The changing political and economic discourse resulted in a shift, from seeing housing mainly within a rights framework, to recognising its role in improving the broader socioeconomic participation of beneficiaries. The main shifts are summarised below:

From houses to neighbourhoods and communities

Addressing effectively the spatial and economic fragmentation of South Africa's cities would require the housing mandate to expand beyond mere shelter concerns, to build integrated neighbourhoods and communities rather than houses.

From top structure to services

Given the above shift, delivery of housing would have to go hand in hand with the effective delivery of basic services (e.g. water, electricity and sanitation), as well as social and educational amenities, and access to livelihood opportunities and resources through improved transport and economic opportunities. The broader debate around delivering human settlements that are close to services and opportunities is informed by the recognition that housing is an asset.

DELIVERY OF HOUSING WOULD HAVE TO GO HAND IN HAND WITH THE EFFECTIVE DELIVERY OF BASIC SERVICES.

From shelter to asset

Housing delivery creates financial, social and economic assets for households excluded from accessing the formal property market and the economy (Shisaka, 2011). Housing is also an asset for the local economy, as including housing beneficiaries in the larger property market grows the rates base, which is crucial for local government. A component of the BNG's vision is '[e]nsuring property can be accessed by all as an asset for wealth creation and empowerment' (DoH, 2004), while land and housing are critical to reducing the asset poverty of poor households (The Presidency, 2003, 2008).

From quantity to quality

Recognising housing as an asset, the housing norms and standards introduced through the 1997 Housing Code (DoH, 1997) were aimed at improving the delivered housing product. However, the recent expansion of the norms and standards may have had the unintended

consequences of resulting in a product that is not only too expensive for the state to build (to the possible exclusion of other types of shelter options) but also possibly too expensive for households themselves to maintain.

From formal to informal

Informality is likely to be a feature of the future South African urban housing landscape. Informality is increasingly recognised as how new arrivals enter the cities, and so informal practices (employment as well as shelter) provide important coping mechanisms and should be harnessed, especially where they reflect the investment and agency of individuals, households and communities.

From national to local as the sphere of delivery

The role of local governments (particularly metros) has been established as critical for local development and spatial transformation. The housing assignment process will enable municipalities to plan and integrate human settlements across the different built-environment functions, and this accountability is also likely to improve performance and spending (SACN, 2012). The developmental role of municipalities is not contested, but what is important is how (and whether) evolving policy, capacity constraints and institutional and financial arrangements are geared towards effectively delivering this expanded mandate and, in so doing, spatially transforming the apartheid city.

PROVIDING SOME PERSPECTIVES

The post-apartheid challenge continues to be how to integrate people into the economy and society in South Africa. Therefore, to give effect to the broader developmental goals, the role of space and the transformation of the built environment should be at the forefront. Cities are the site of this struggle, and effective responses to human settlement creation are critical for success. This requires human settlements to be understood as a function of a broader built environmental agenda and that 'key elements for successful urban restructuring include higher-density housing development in well-located areas, major improvements in public transport to bring fragmented places together and higher employment levels in townships and informal settlements' (SACN, 2011). The starting point is to understand what SHS are.

Definition of sustainable housing settlements

There are various interpretations of what exactly constitutes SHS (see for example the Du Plessis 2009 reference in the chapter by Charlton et al.). A useful starting point is the official policy definition provided in the BNG.

> Sustainable human settlements are well-managed entities in which economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity.

Some additional elements towards the definition that are emanating from the concerns presented in this chapter might include:

- The understanding of human settlements as they relate to the broader economic goals of a city.
- The recognition of social cohesion and integration.
- The flexibility and capacity for human settlements responses that are context specific and respond to diverse needs.

The evolving conceptualisation of access to housing and livelihoods should go hand in hand with reflecting on what a transformed urban built environment in South Africa looks like more generally. This may require a move away from a utopian built-environment vision (often informed by international ideals and principles), towards recognising the unique characteristics of African and South African urban futures – for example, where informality remains a permanent and significant feature. Here, both the formal and informal activities of city residents must be understood as interconnected and should be harnessed (and supported) by any human settlements responses.

Issues addressed in this publication

For South Africa to begin to transition effectively to SHS, some of the issues that need to begin to be addressed are:

Land and land use management

Comprehensive urban land reform (restitution, redistribution and redress) in South Africa has lagged. The high cost of well-located urban land has been identified as an impediment to providing better located housing.

This has contributed to making it much easier to develop greenfield public and private housing estates (generally on lower-priced peripheral urban land) than to deliver on infill housing projects closer to economic opportunities and urban resources. Public developments are further encumbered by poor intergovernmental alignment caused by the disjuncture in policy, planning and funding. Existing spatial planning and land use management instruments have been unable to steer development of both public and private projects towards more integrated and equitable cities. The new Spatial Planning and Land Use Management Act (SPLUMA) is intended to contribute to addressing this situation. Given the imminent implementation of SPLUMA, the chapter by Denoon-Stevens attempts to understand how the BNG concepts can be incorporated into existing land management tools such as spatial development frameworks (SDFs) and zoning schemes. It further takes a conservative look at how incentives and the purchase of private land for housing purposes can be used, in light of the severe strain that state financial resources are already under.

BOTH THE FORMAL AND INFORMAL ACTIVITIES OF CITY RESIDENTS MUST BE UNDERSTOOD AS INTERCONNECTED.

Policy development

A significant policy gap remains in terms of defining and guiding the SHS response in South Africa. The lack of an updated human settlements policy has critical implications for the devolution process currently underway, as such a policy should inform and support the

ability of cities to implement SHS within a transformative agenda. The policy gap also has funding implications and affects the way the institutional architecture is able to respond to the human settlements mandate. The chapter by Graham et al. uses the experiences of three metropolitan municipalities (eThekwini, Buffalo City and the City of Johannesburg) to examine the planning framework and existing municipal plans that affect the built environment and to propose a revised approach to the planning framework to improve the creation of SHS.

Instruments

In order to give effect to spatial transformation, the institutional mechanisms and instruments to implement an effective human settlements approach should be carefully considered. City governments have to be able to make sense of, coordinate and implement the various functions and financial flows that converge at the local level. This requires several important issues to be resolved and clarified, such as what instruments and practical arrangements are required and how they link or relate to other local government mandates, priorities and realities, as well as the enabling and facilitative mechanisms needed to bring about a different kind of urban spatial and settlement formation. Tshangana's chapter analyses the evolution and impact of the local government infrastructure grant framework on municipalities, which are at the coalface of delivering basic services and bulk infrastructure. It examines the challenges from a municipal perspective and considers to what extent recent reforms and changes to the fiscal framework will address those challenges, and whether the reforms will result in a grant framework that facilitates municipal delivery of human settlements rather than housing.

CITY RESIDENTS THEMSELVES ARE ALSO ABLE TO DETERMINE AND PRODUCE THEIR LIVING ENVIRONMENTS.

Agency and participation

The development of SHS can no longer be considered the role of government only. Given the scale and nature of human settlements requirements, co-production must be encouraged. Instead of continuing with top-down, mostly public sector delivery, more effective partnerships must be achieved between government, the private sector, as well as communities and individuals. Private sector investment in isolation is also often unchecked and sometimes in direct contradiction to the broad development goals and intentions of city governments. City residents themselves are also able to determine and produce their living environments. The chapter by Charlton et al. illustrates the investments made over time by beneficiaries of the housing programme and the implications for the growth of the house as an individual asset and the resulting positive impact on neighbourhood growth and development. The creation of viable, vibrant communities, able to participate in a range of social and economic activities and integrated into the broader fabric, becomes an important imperative. Thinking through the design of individual shelters as well as from the neighbourhood perspective in a consultative manner will contribute towards more effective place making, as the contributions by both Pieterse and van Donk and Cross attempt to show.

Capacity

The changing concepts, relations and approaches to human settlements mean that cities may lack the capacity to quickly grasp and deliver on the evolving human settlements mandate. This does not negate the fact that they are the best placed to respond and to transform urban space. However, what cities will need in terms of institutional and human capacity building must be considered. At present, there are a number of institutional challenges, highlighted by Zitumane, that are impeding effective municipal service delivery. Strong and decisive leadership, as well as a significant amount of introspection and clear plans for responding to the institutional malaise, are essential across the system to effectively enable performance at the local level.

This publication reflects on the questions, challenges, visions and possibilities of a spatially transformed post-apartheid city. The actual content and outcomes of SHS in such a transformed city are yet to emerge clearly – and may in fact look different depending on the various local situations – but hopefully these chapters will give some guidance for South African cities of the future.

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INTERGOVERNMENTAL FUNDING FRAMEWORK

Alison Tshangana

INTRODUCTION[1]

CITIES ARE BUILT AS THEY ARE FUNDED. PUT DIFFERENTLY, WE GET THE RESULTS THAT WE INCENTIVISE.

In exploring the shift from housing to human settlements, one of the critical questions to ask is whether the funding framework enables and incentivises the delivery of human settlements, as opposed to housing. How should

1.   The author wishes to acknowledge Ulrike Rwida from National Treasury for her assistance with key concepts in this chapter.

the grant framework be designed to ensure the delivery of human settlements? What does a human settlements-friendly funding framework look like?

OVERLAPPING RESPONSIBILITIES FOR THE VARIOUS ELEMENTS OF HUMAN SETTLEMENTS CONTRIBUTE TO A FRAGMENTED AND COMPLEX FUNDING FRAMEWORK.

This chapter lays out the fiscal context for the shift from housing to human settlements. Its scope is limited to the intergovernmental grant framework, which funds municipal expenditure on public infrastructure and human settlements. It does not extend to other important aspects of the overall funding framework, such as private household investment in the house as an asset; the subsidisation, pricing, development and financing of land; and the role of property rates and other municipal own revenue sources in funding human settlements.[2]

A discussion of the fiscal framework for human settlements cannot be separated from issues related to the powers and functions of the three spheres of government with respect to human settlements delivery and (more broadly) the built environment. Housing is classified as a concurrent[3] function concerned mainly with the erection of top structures, whereas human settlements encompass additional components, including: the provision of basic services (water,

sanitation, refuse removal, electricity); town planning and land use management; roads and public transport; sports and recreation; as well as the provision of clinics and schools. Provinces and municipalities largely share responsibility for these aspects of human settlements, in addition to housing itself. While local government's chief task is the delivery of basic services, both provinces and municipalities manage large components of the road and public transport networks and share responsibility for planning. Local government is also responsible for other community amenities, which form often-neglected but critical elements of human settlements: parks, sports and recreation facilities, and street lighting. These overlapping responsibilities for the various elements of human settlements contribute to a fragmented and complex funding framework for these functions.

A short analysis of how local government infrastructure grants have evolved since 1994 is followed by an exploration of the impact of the grant framework's design and complexity on municipalities that are at the coalface of delivering of basic services and bulk infrastructure. Having identified some of the challenges from a municipal perspective, the chapter then considers to what extent recent reforms and changes to the fiscal framework will address those challenges, and whether the reforms will result in a grant framework that facilitates municipal delivery of human settlements rather than housing.

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2. Nor does this chapter take a broader life-cycle definition of human settlements, which would necessitate considering the operational costs to deliver those services (including maintenance) that are included in integrated human settlements.
3. Concurrent functions – as listed in Schedule 4 of the Constitution – are shared competencies of provincial and national government.

EVOLUTION OF INFRASTRUCTURE GRANTS FOR LOCAL GOVERNMENT

THE EVOLUTION OF THE LOCAL GOVERNMENT INFRASTRUCTURE GRANT FRAMEWORK IS SHAPED BY TWO KEY THEMES.

First, repeated waves of the proliferation of local government infrastructure grants are followed by moves to simplify and consolidate. As shown in Figure 1, despite efforts to pool multiple sector-based grants into larger multi-sectoral grants, the overall trend is towards the proliferation of specific-purpose grants. The second main theme since 1994 has been the gradual realisation of the need to shed a one-size-fits-all approach and to experiment with differentiated frameworks that recognise the considerable variation between high and low capacitated municipalities and between rural and urban environments.

Figure 1: Evolution of infrastructure grants for local government
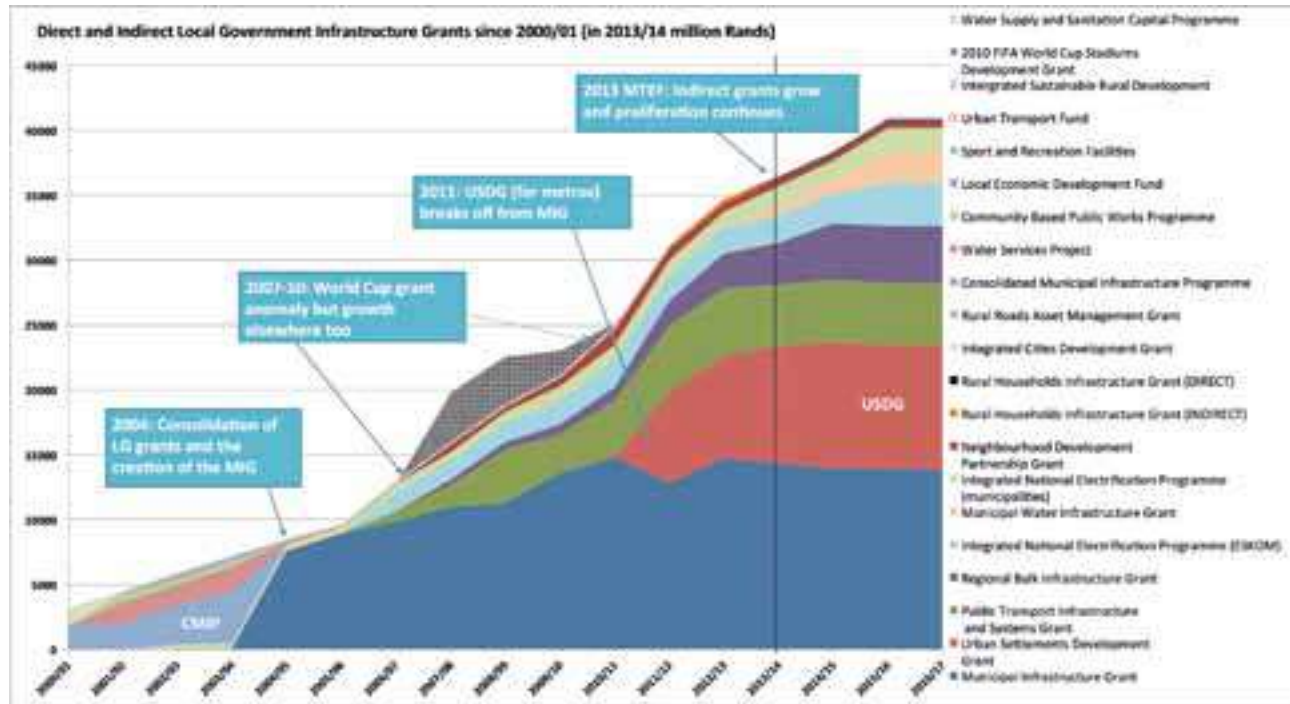
Source: National Treasury (2013b)

From its origins in 1994, the Reconstruction and Development Programme (RDP) prioritised the rapid development and upgrading of household infrastructure. Yet long-term investment infrastructure was often sacrificed or deprioritised in the drive to deliver quick, visible results, within a context of fiscal constraints. A number of small grants funded the RDP and were mainly spent as indirect grants, whereby the national department would implement on behalf of the municipality, and – upon completion of the project – transfer ownership and responsibility for maintenance of the infrastructure to the municipality (National Treasury, 2013a: 5). The focus was on the speedy and large-scale provision of houses to poor households.

Consolidation and proliferation

The first 'wave' of consolidation of infrastructure grants came in 1996, with the establishment of the Consolidated Municipal Infrastructure Programme (CMIP) which created a single funding stream for the delivery of municipal infrastructure.

In these early years, the focus of national transfers to local government for infrastructure was on the delivery of services to poor households, for equity and poverty alleviation purposes.[4] The assumption was that municipalities must themselves develop the economic infrastructure to benefit non-poor households, financed via tariff policies that enable cross-subsidisation and ensure economic viability of those services. Municipalities were also encouraged to mobilise private investment and explore Public-Private Partnerships (PPPs), instead of relying solely on own revenue and conditional and non-conditional transfers (National Treasury, 2013b).

In the following years, the CMIP ballooned, reaching R2.2-billion in 2003/04. As it grew, various changes were introduced, including a shift from a project-based approach to a formula allocation. During the same time, despite the original intention that the grant would serve as a unified, single funding stream, other infrastructure-related grants emerged subsequent to 1996, and by 2002/03 nearly seven grants filled the local government infrastructure space (National Treasury, 2013a: 6).

As a result of this proliferation, a second push towards rationalisation ensued and, in 2004, a review of the local government fiscal framework was undertaken, which resulted in the introduction of the Municipal Infrastructure Grant (MIG).

With the establishment of the MIG, two processes came together: rationalisation and decentralisation, both of which support the delivery of human settlements as opposed to housing. The main aim of MIG was to provide a single, multi-sectoral, capital grant to municipalities to cover the costs of the infrastructure required to provide a basic level of services to poor households. The vehicle of a single capital grant was chosen to give municipalities the flexibility to allocate funds according to the specific circumstances in their jurisdiction, as reflected in the local priorities identified in the municipal integrated development plan (IDP) (DCoG, 2014a). In this manner, the MIG attempted to strike a balance between local priorities and the need to ensure national policy priorities are achieved.

The basis of the rationalisation argument was that a single capital transfer intended to supplement the capital budget of the municipality would minimise bureaucracy and facilitate delivery, as opposed to the separate planning and reporting processes associated with each of the sector-based grants. From a human settlements perspective, the introduction of the MIG was good news because it allowed municipalities to finance the various elements of human settlements (besides the top structure itself) from a single source. The MIG can be used for basic residential infrastructure, for water, sanitation, roads, refuse removal, street lighting, connector and internal bulk infrastructure, and other municipal infrastructure such as sports fields and community facilities (RSA, 2014b: 74). However, the MIG's project-based approach, as administered by the Department of Provincial and Local Government[5], somewhat undermined this efficiency and simplicity argument. Alongside the department's overarching role, seven sector departments were responsible for

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4.   Operational costs of providing services to poor households were, and continue to be, funded via the Equitable Share to local governments.
5.   Later the Department of Cooperative Governance and Traditional Affairs (DCoG).

monitoring and overseeing MIG-funded projects in their sector, thus creating a complex web of accountability and contributing to a fragmented portfolio of MIG projects.

In addition to rationalising the local government infrastructure grant framework, the MIG also marked an important step in decentralisation to local government. By providing some autonomy to municipalities to identify their infrastructure investment priorities, the MIG demonstrated the subsidiarity principle by acknowledging that such decisions are best taken at local level.

Differentiation

The next major development in the local government infrastructure fiscal framework was the move towards differentiation, as demonstrated by the establishment of the MIG-Cities grant in 2007. MIG-Cities was created because of the realisation that the larger, more developed and capacitated metropolitan municipalities (metros) did not require the same intensity of monitoring, assistance and support as smaller municipalities, which struggled to spend the MIG. The MIG-Cities grant was an experiment in using a programmatic approach to the administration of the grant. Instead of project-based approval, the MIG-Cities grant was disbursed based on approval of the metro's overall integrated plan for developing the built environment and its capital investment programme. Therefore, this new grant represented one of the first clear examples of a differentiated funding approach based on varying capacities and contexts of municipalities. From a human settlements perspective, the key contribution of the MIG-Cities was that it stepped back from a project-based approach and placed a strong emphasis on whether the metro had done its homework in drawing up an integrated plan for the development of the city. However, the focus on spatial restructuring and spatial planning had yet to gain momentum in the design and implementation of the grant.

The 2011/12 Budget introduced the new Urban Settlements Development Grant (USDG) for the metros, which replaced the MIG-Cities Grant and also drew from the Human Settlements Development Grant (HSDG). The USDG was intended to assist metros with producing serviced land for poor households and to improve spatial integration and densities in urban areas. In particular, the USDG grant framework and original draft policy emphasised the upgrading of informal settlements and the acquisition of well-located land. Following the same lines as the programmatic approach of MIG-Cities, the USDG was classified as a Schedule 4 grant to supplement the capital budget of the metros. Its designation as Schedule 4 meant that metros did not need to comply with the same intensive reporting procedures associated with Schedule 5 specific-purpose grants. Grant funding was released to the metros upon approval of a Built Environment Performance Plan (BEPP), which was evaluated by a panel that included National Treasury and the national Department of Human Settlements (DHS). Like the MIG-Cities, the USDG took a holistic approach to planning, but with an added emphasis (introduced in the BEPP) on spatial restructuring and the strategic location of infrastructure to maximise efficiencies, create economic

growth, and enhance densification. An important aspect of the USDG is that metros are measured against performance targets (outcomes) rather than outputs, which focus primarily on expenditure targets.

In keeping with the cyclical process of rationalisation and proliferation, additional grants were created subsequent to the MIG's establishment in 2004 and alongside the creation of the USDG. These specific-purpose grants emerged for a number of reasons.

SINCE 1994 THE EVOLUTION OF LOCAL GOVERNMENT INFRASTRUCTURE GRANTS HAS RESULTED IN A COMPLEX PATCHWORK OF CONDITIONAL GRANTS FOR INFRASTRUCTURE DEVELOPMENT.

First, grants continued to pop up, as sector departments felt local government's use of the MIG was not resulting in adequate progress towards the achievement of national priorities. The MIG instrument did not allow sufficient control to protect the pursuit of these national sector priorities. One means of addressing this discord is improved institutional arrangements to strengthen intergovernmental coordination and alignment, but this approach entails the slow work of strengthening communication, forging consensus and cultivating improved relationships between the three spheres. In contrast, a regulatory approach, which uses the Division of Revenue Act (DoRA) to ensure the ring-fencing of funds for specific purposes, is much more straightforward.

A second reason for the proliferation of grants was the need to differentiate between urban and rural areas, not only in terms of municipal capacity, but also with respect to policy priorities and service delivery environments and constraints. The Rural Households Infrastructure Grant (RHIG) and the Water Services Operating Subsidy Grant are examples of such grants. Another example of this differentiation was the Presidential Infrastructure Coordinating Council's identification of 23 priority districts, which were given extra funds via the Municipal Water infrastructure Grant (MWIG), as well as the RHIG (National Treasury, 2013a: 12).

In summary, since 1994 the evolution of local government infrastructure grants has resulted in a complex patchwork of conditional grants for infrastructure development. Some transfers flow directly to municipalities, while other funding arrives at the municipality via the province. Multiple national sector departments administer infrastructure grants for local government. Some grants are restricted to sector-specific programmes, while others can be used by municipalities to cover projects across multiple sectors. Some grants flow to all municipalities, while others flow exclusively to a prioritised list of municipalities, or are focused on rural or urban areas. Finally, not all infrastructure projects are implemented by local authorities themselves but may be financed through indirect grants, whereby a state entity, or national or provincial government builds the infrastructure on behalf of the local government. The following section asks how this ad hoc patchwork of grants affects the municipalities who sit at the receiving end.

CHALLENGES FROM A MUNICIPAL PERSPECTIVE

THE MIG HAD A NUMBER OF POSITIVE EFFECTS OR OUTCOMES FOR THE DELIVERY OF HUMAN SETTLEMENTS BY MUNICIPALITIES.

The direct grant mechanism allowed municipalities to do multi-year planning against the multi-year allocations in the DoRA, thus ensuring predictability and transparency (DCoG, 2014b). Municipalities also welcomed the spending authority provided by the grant; although a formula determines allocations, communities themselves can decide how the funding should be prioritised. However, the MIG design assumes that a credible IDP is in place to serve as the capital planning instrument. Yet some municipalities still struggle to develop and maintain

sufficient planning capacity to produce credible IDPs and continue to outsource. Further, municipalities must have sufficient technical engineering and project management capacity to be able to translate infrastructure investment plans into technical infrastructural requirements in conjunction with sectors (ibid).

The metros welcomed the subsequent creation of the USDG, mainly because its broad purpose enabled them to use the funds to plug critical gaps. The more flexible USDG allowed for the financing of components of human settlements projects that could not be funded via the HSDG. It also resulted in reduced red tape and expedited approval and construction processes (DHS, 2013). However, to effectively spend their USDG, metros must have the requisite capacity to plan an infrastructure investment programme and to manage procurement and implementation processes.

Despite the advantages associated with multi-sectoral grants (USDG and MIG), municipalities also experienced growing administrative burdens, as the additional specific-purpose grants required ring-fencing in the municipal budget. Multiple conditional grants are accompanied by multiple business plans, payment schedules and reporting requirements, each of which often requires separate administrative personnel and/or systems. Another potential downside is that the present grant framework may weaken municipalities' incentives to obtain loan financing or crowd in private investment, especially given the limited effectiveness of municipalities in securing loan finance (DCoG, 2014b).

RECENT DEVELOPMENTS AND REFORMS

TO ADDRESS THESE CHALLENGES, VARIOUS FORTHCOMING CHANGES TO THE LOCAL GOVERNMENT INFRASTRUCTURE GRANT FRAMEWORK WILL DIRECTLY AFFECT THE ABILITY OF MUNICIPALITIES TO DELIVER HUMAN SETTLEMENTS, NOT JUST HOUSING.

Incentive grants and integrated planning instruments

Up until 2013/14, local government infrastructure grants were allocated primarily based on a formula, whose main factor was the demand for services as measured by the backlog. This approach reflected an overall policy emphasis on addressing poverty and inequality in order to fulfil constitutional obligations to provide a basic

level of service to all households. While this approach ensures areas with greater backlogs get more funding, it can also result in underspending, where historically disadvantaged areas are also home to less-capacitated municipalities.

International practice provides many examples of central government transfers that are designed to incentivise good performance or particular planning approaches, through matching grants or performance-based allocation formulas. The introduction of the Integrated City Development Grant (ICDG) in 2013/14 was the first attempt in the built environment sector to introduce performance-based grants. The ICDG provides metros with a financial incentive for investing in infrastructure that develops more compact and efficient urban environments (National Treasury, 2014: 104). Eligible metros receive allocations based on a formula that takes into account certain governance and financial management measures, such as an unqualified audit opinion and underexpenditure of their capital budget of less than 35% (RSA, 2014b:190).

Apart from the introduction of performance-based incentives, a second important development is the attempt to link funding flows to integrated, multi-sectoral spatial planning by municipalities. Introduced in 2006, the Neighbourhood Development Partnership Grant (NDPG) funds projects in townships to connect historically underserved communities to the wider city economy through transport corridors (National Treasury, 2014: 102). The NPDG's purpose is to facilitate the planning and development of neighbourhood development programmes and projects that provide

catalytic infrastructure to leverage third-party (public and private sector) development aimed at improving the quality of life of residents in targeted underserved neighbourhoods (RSA, 2014b: 194). The NDPG uses a carefully designed application process to make awards to municipalities that have developed urban network plans.

National government, led by National Treasury, is making an effort to simplify the planning framework. Instead of a separate plan required for each conditional grant, '[f]rom 2014/15, all projects funded by sector-specific infrastructure grants, including the USDG, PTIG, NDPG, and INEP must form part of a metropolitan municipality's built environment performance plan' (RSA, 2014a: 100). The BEPP will be a requirement for metros to receive the ICDG, with the main purpose being to show spatial targeting and alignment of projects funded across the three spheres of government.

Increase in indirect grants

Another emerging trend is the recent increase in indirect grants for local government infrastructure, whereby provinces and national departments develop infrastructure on behalf of municipalities. In 2014/15, R36.1-billion will be transferred to municipalities through direct conditional grants, and R7.7-billion will be spent on their behalf through indirect grants (National Treasury, 2014: 99). The 2014/15 Budget has multiple examples of indirect grants in the built environment sector. In 2014/15 funds were shifted from the direct to the indirect component of the INEP, from poor performing municipalities to Eskom. A new indirect component of the MWIG was also created to implement

water service projects in municipalities where the Water Service Authority has not performed adequately. The RHIG has direct (R48-million in 2014/15) and indirect (R66-million) components, to provide capital funding for on-site sanitation in rural areas of the 23 priority districts. In addition to the RHIG, a further R900-million has also been ring-fenced from the HSDG for bucket eradication projects in urban areas, to be spent on behalf of municipalities.

According to National Treasury, the growth of indirect grants reflects government's intention to ensure delivery takes place while more institutional capacity is developed at local level. As provinces and municipalities improve their ability to spend funds efficiently, indirect grants may be converted back to direct grants (National Treasury, 2014: 99). However, the concern is that indirect grants may undermine local government autonomy and make integrated delivery in the municipal space more difficult.

Devolution of housing, public transport and spatial planning to local government

The most important recent development in the human settlements sector is the accreditation and assignment of the housing function to municipalities, as per Section 126 of the Constitution. In keeping with the principle of subsidiarity, functions that can best be performed at the local level must be devolved to local government on an incremental basis. To this end, processes are currently underway to assign the housing function to six metros by 1 July 2014.[6] These six metros already have accreditation level 2, which means that the responsibility for programme management and administration for all national and provincial housing programmes[7] (as well as Level 1 responsibilities of subsidy budget planning and allocation) has already shifted to those metros (DHS, 2012).

Levels 1 and 2 of accreditation ultimately lead to assignment, which constitutes the formal transfer of the functions related to the administration of national housing programmes from the provincial MEC responsible for Human Settlements to a municipality. The most critical feature of assignment is that, from 1 July 2015, the HSDG will be transferred directly to the assigned municipality by the national DHS, instead of flowing to the provincial department and then being gazetted and transferred to the accredited municipality by the province.

According to the MINMEC-approved Accreditation Framework, the assignment of the housing function will unblock key obstacles in delivery and thus improve performance, by simplifying the accountability and resourcing for the delivery of the function. Assigning the housing function to the six metros will mean that the bulk of the human settlements functions will be centralised at local level. The idea is that assignment will facilitate the integrated planning of ancillary municipal functions, such as water, electricity and sanitation. In this regard, the devolution of the housing function will not only improve performance in the human settlements sector, but will also contribute to improved management of urbanisation and the built environment.

The process of assignment is not isolated to the housing function but is also being pursued for public

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6.   Cape Town, Johannesburg, Ekurhuleni, Tshwane, eThekwini and Nelson Mandela Bay.
7.   With the exception of individual, relocation and Finance Linked Individual Subsidy programmes, the administration of which remains the responsibility of the MEC.

transport provision and spatial planning (devolved to municipalities through the National Land Transport Act (NLTA) Act No. 5 of 2009 and the Spatial Planning and Land Use Management Act No. 16 of 2013 respectively). Spatial planning is a recently devolved function, and certain modalities still need to be addressed in terms of regulation. However, devolution of the public transport function is at an advanced stage, in particular in Cape Town. In 2013/14, over R5.5-billion was transferred directly to 13 municipalities for public transport provision, via the Public Transport Infrastructure Grant (PTIG) and Public Transport Network Operations Grant (PTNOG). However, progress has been slow in establishing municipalities as Municipal Regulatory Entities in terms of the NLTA and in taking over the bus subsidy contracting function, while municipalities are still grappling with the devolution of the operating license and bus contract functions (as provided for in legislation).

Reviews of local government infrastructure funding

Responding to the proliferation of local government infrastructure grants and the inefficiencies related to the current fiscal framework, the Minister of Finance announced in his 2013 budget speech that government would undertake a comprehensive review of local government infrastructure grants led by National Treasury, in collaboration with DCoG, the Department of Programme Monitoring and Evaluation (DPME), the Financial and Fiscal Commission and the South African Local Government Association (National Treasury, 2014: 101). Recommendations emerging from the review will likely appear in the 2015/16 Budget and could include

a consolidation of existing grants, changes to grant administration, the introduction of new or extension of existing grants to fill gaps, or reforms to DoRA (RSA, 2014a: 104).

This comprehensive review of the local government infrastructure grant framework is being undertaken simultaneously with two other review initiatives: a review of the design and implementation of the USDG (undertaken by DHS and DPME) and a review of the MIG policy (driven by DCoG). The findings of these three reviews must feed into one another and be considered as a whole, in order to ensure the chosen package of reforms is coherent and results in greater efficiency and effectiveness of infrastructure grants to local government.

CONCLUSION

The developments outlined above should have a positive impact on the delivery of human settlements. A grant framework, which incentivises and supports the delivery of human settlements, would first need to centralise the key functions related to human settlements at the local level, in order to enable integrated planning. With the assignment of the housing and public transport functions to municipalities, critical milestones are being achieved towards this end.

Second, a human settlements-friendly grant framework needs to provide municipalities with sufficient autonomy to identify their own infrastructure investment priorities. Hopefully the current reviews of the MIG and the local government infrastructure grant framework will result in reforms that retain the principle of a consolidated infrastructure grant for municipalities as set out in the MIG, while rationalising some of the smaller infrastructure grants that create administrative reporting burdens and undermine municipal flexibility. In keeping with the principle of simplicity and consolidation, it would be advisable to consider merging the HSDG and USDG for assigned metros, given the overlap in their purposes and the fact that both are administered by the National DHS.

Third, differentiating support and institutional arrangements between urban and rural may be key to improving human settlements delivery. In this case, multiple grants are inevitable and must be carefully managed to avoid duplication and overlap. To support the provision of human settlements, the grant framework must recognise that some municipalities are ready to take on the integrated spatial planning for the built environment required to deliver sustainable human settlements, while other municipalities continue to need intensive support around spatial targeting, capital investment programming and project implementation, in particular. The trend towards differentiation, as exhibited in the separation of the USDG from the MIG, and the creation of indirect grants for rural and/or less capacitated municipalities, is therefore welcomed. Finally, the shift towards basing grant disbursement on the approval of integrated built environment plans, as demonstrated by the revised BEPP process, is a necessary and positive move.

The forthcoming assignment of municipalities will irrevocably alter the institutional arrangements for delivering human settlements. However, assigned municipalities are still dealing with the same Housing Code and array of housing subsidy programmes as provincial departments. And issues remain with the HSDG. Since 1994, the number of subsidy programmes in the Housing Code has grown to 17. More recently, the housing subsidy has increased substantially; greater emphasis is being placed on the Upgrading Informal Settlements Programme (UISP) and providing serviced sites; and substantial allocations continue for rental housing despite poor performance in the sector. At present, the Provisional Restructuring Zones for social housing are the only tool for spatial targeting of HSDG expenditure. No explicit tools are in place to ensure the approval and funding of only well-located integrated

residential development projects, which means that projects located within the urban edge, but at some distance from public transport or economic hubs, continue to be approved.

Therefore, despite reforms to the funding framework and the architecture of powers and functions, the reality remains that government delivers what it measures. As long as provincial departments of human settlements and assigned metros are evaluated and driven by the pursuit of numerical targets for top structures and serviced sites, the complex work of ensuring the construction of well-located, integrated communities with social and economic amenities will likely take a back seat to meeting the annual financial and non-financial goals.

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THE MUNICIPAL PLANNING FRAMEWORK

Nick Graham, Meagan Jooste and Ian Palmer

INTRODUCTION

MUNICIPAL RESPONSIBILITY IN THE BUILT ENVIRONMENT IS CHANGING.

The Spatial Planning and Land Use Management Act (SPLUMA) No. 16 of 2013 increases the planning and land-use management responsibilities of municipalities, while the accreditation of the housing function outlined in the Housing Act No. 107 of 1997 is coming to fruition. In addition, municipalities, and in particular metropolitan municipalities, are assuming greater public transport responsibilities, as outlined in the National Land Transport Act (RSA, 2009), with the formation of transport authorities and the introduction of municipal mass transit systems.

These growing responsibilities are supported by an existing municipal planning framework, which is defined primarily by the Municipal Systems Act No. 32 of 2000 but is supplemented by other sectoral legislation. Over time, municipalities are preparing an increasing number of plans either because of the introduction of new legislation or new grants or because they are voluntarily introducing plans to try and improve some aspect of planning. But do these myriad plans, overlaid historically

one on top of another, facilitate a shift from housing to human settlements?

The national housing programme, as implemented in South African cities, has been relatively linear, silo-based and rigid. However, as municipalities assume greater responsibility for achieving a broader transformative agenda in terms of space, function, and efficiency of sustainable human settlements (SHS), as defined in the National Development Plan (NDP) (NPC, 2012), the implication is that planning needs to be more strategic and cross-sectoral (integrated). The intended end product is also materially different from the standardised housing units delivered on a mass scale.

This chapter assesses whether the existing municipal planning framework facilitates (or hinders) integrated planning for SHS and will result in a shift from delivering housing to creating SHS. The focus is on whether planning is integrated, meaning that an overriding strategy informs all planning and that all departments in the municipality coordinate their plans to deliver the required services in space at the same time. For the purpose of this chapter, SHS are defined as people-centred spaces, which provide the basic engineering and social services required for quality of life and access to economic opportunities to sustain livelihoods, while maintaining an equilibrium between inputs (money, land, time) and outputs (social benefit, economic growth) that can continue over time. The study is limited to local-level planning and its internal cohesion, and not to the alignment of intergovernmental planning, which was assessed in a previous study (DHS and SACN, 2013).

After a brief description of the planning framework and the existing municipal plans that affect the built environment, the body of the chapter discusses how these plans are used and experienced in three metropolitan municipalities: eThekwini, Buffalo City and the City of Johannesburg.[1] The data is derived from an analysis of the municipal plans and telephonic interviews with officials responsible for planning in each municipality. The conclusion draws out the implication of the research findings for the municipal human settlements planning framework and proposes a revised approach to the planning framework to improve the creation of SHS.

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1.   These metros were selected to provide a range of scales, based on the knowledge of the authors around the different organisational arrangements for planning responsibilities.

OVERVIEW

Overview of types of plans that affect human settlements

The municipal planning framework in South Africa has evolved into a complex inter-relationship of multiple plans covering different sectors and timeframes. Most, but not all, of these plans relate in some way to human settlements. In addition, external parties, including national government departments, provincial government, Eskom and the Passenger Rail Agency of South Africa (PRASA), undertake planning that affects human settlements at the city level.

This section describes the most influential of the statutory and voluntary plans relating to the built environment, in terms of their status, objective and relevance to human settlement interventions in cities.

Figure 2: Overview of the municipal planning framework
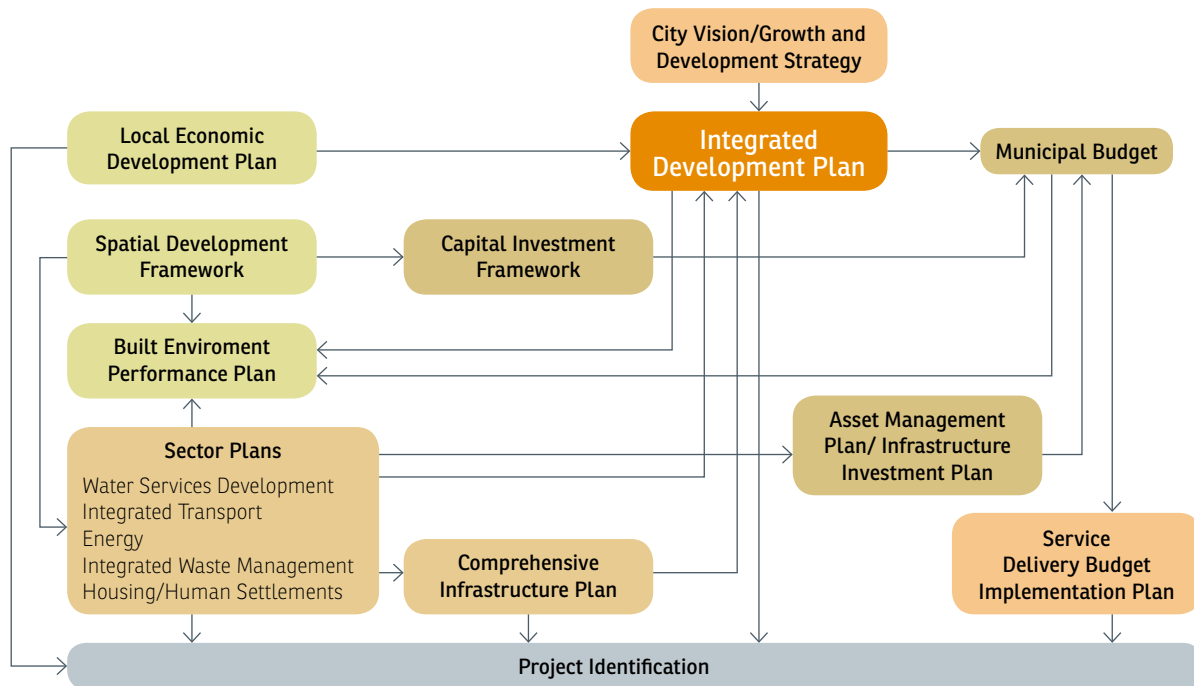
Integrated Development Plan

The key instrument in the municipal planning framework is the integrated development plan (IDP), required by all municipalities in terms of Section 25 of the Municipal Systems Act (Harrison, 2008). The prescribed core components in Section 26 of the Municipal Systems Act are:

- a long-term vision
- an assessment of current development needs
- development priorities
- development strategies
- a spatial development framework
- operational strategies
- disaster management plans
- a three-year budget
- key performance indicators and targets

Municipalities are required to produce five-year IDPs that are updated annually. These plans are intended to coordinate planning across departments within a municipality (and between spheres of government), to introduce citizen participation in the planning process and to allocate resources to political priorities. They are therefore critical to human settlement planning and theoretically serve to institutionalise the type of multi-sectoral thinking and planning necessary for the delivery of human settlements.

IDPs are funded by the accompanying municipal budget, which in turn is funded by the full suite of national and provincial transfers, municipal own funding and borrowing.

Spatial Development Framework

The Spatial Development Framework (SDF) is used to guide and manage spatial growth and development. The SDF is a statutory requirement and legislated through the Municipal Systems Act (as a core component of an IDP) and the SPLUMA, which prescribes the preparation and content of the SDF. The SDF must contain a five-year development plan and a 10–20 year vision. Public participation is compulsory. The SDF is intended to support the objectives of the IDP and the city vision in its spatial manifestation through land-use management guidelines.

The new SPLUMA requires SDFs to estimate the demand for housing and indicate the planned location and density of future housing developments, including incremental upgrading. Importantly, according to SPLUMA, the municipality's capital budget must be depicted spatially through a Capital Investment Framework (CIF). This means that projects in the capital budget have to be allocated to geographical areas, making plotting capital investment on a map possible. This new requirement will see a greater emphasis on the financial implications of SDFs. Both the Neighbourhood Development Partnership Grant (NDPG) and the new Integrated City Development Grant (ICDG) are contingent on spatial integration zones being identified as part of the SDF (RSA, 2013).

Housing/Human Settlement Plans

According to the Housing Act, housing planning must be part of the IDP process. To assist municipalities in drafting the housing chapter of their IDPs, or a separate Housing Sector Plan (HSP) that becomes an annexure to the IDP, a National Housing Programme was established. Since the changing of the name of the national department,[2] most municipalities have renamed these plans (Integrated) (Sustainable) Human Settlements Plans. The Housing Code (DHS, 2009) prescribes the contents of the plan, which must (inter alia) ensure that basic levels of services are provided to residents; set housing targets; identify land for housing; create and maintain a public environment conducive to housing development; and initiate, plan and coordinate land and housing development. With the assignment of the housing function to metros, the requirement to submit an annual business plan to the national Department of Human Settlements (DHS) will also apply to metros that receive the funds directly. The Urban Settlements Development Grant (USDG) must be aligned with the human settlements chapter of the IDP (RSA, 2013).

Medium-Term Expenditure Framework Budget

Under the Municipal Finance Management Act (MFMA) No. 56 of 2003, all municipalities must provide National Treasury with a Medium-Term Expenditure Framework (MTEF) budget covering the forthcoming financial year and the subsequent two years. Municipalities report spending against this budget, which National Treasury

THE URBAN SETTLEMENTS DEVELOPMENT GRANT (USDG) MUST BE ALIGNED WITH THE HUMAN SETTLEMENTS CHAPTER OF THE IDP.

uses to monitor financial performance. The budget is also a required component of the IDP. The budget links to all aspects of human settlement intervention, as funds may only be spent according to a council-approved budget. Projects are submitted by line departments and collated in the capital budget. Given that the capital available is unlikely to cover all the capital requirements, the list of desired projects needs to be prioritised in some way. The IDP is the primary mechanism for prioritising projects, as the budget must be aligned to the IDP. However, departments have significant scope to define their own priorities within the IDP's broad priorities.

The first step of the capital budget prioritisation process is that line departments draw up their own capital budgets. Individual projects, which are the responsibility of line departments, are located in space but may be contingent on an associated project being implemented by another line department. Thus, during this process, budgets for the municipality's multiple built environment functions need to be aligned. The more detailed breakdown of the municipal budget is linked to service delivery targets through the Service Delivery Budget Implementation Plans (SDBIPs), which are required by the MFMA.

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2.   In 2009 the name changed from the Department of Housing to the Department of Human Settlements.

INTRODUCTION   INTERGOVERNMENTAL   MUNICIPAL   HUMAN   POST   YOUTH, HOUSING &   ROLE OF LAND   PUBLIC   RESEARCH STUDIES   CONCLUSION
FUNDING FRAMEWORK   PLANNING   SETTLEMENTS   INTERVENTION   URBAN LOCATION   MANAGEMENT   PARTICIPATION
FRAMEWORK   MANDATE   ANALYSIS

35

Infrastructure Master Plan(s)

Cities produce a range of infrastructure master plans, including statutory plans such as the Water Services Development Plan (WSDP), the Integrated Transport Plan (ITP) and the Integrated Waste Management Plan (IWMP), as well as non-statutory plans such as electricity master plans, roads master plans and stormwater master plans. An asset management plan is a particular type of non-statutory infrastructure plan that focuses on maintaining and rehabilitating existing assets, rather than creating new infrastructure, and has less spatial implication for human settlements. Given the long lead time to develop bulk infrastructure, these plans tend to cover a longer term than the IDP (10–15 years). Some municipalities combine these plans into a Consolidated Infrastructure Plan (CIP), which is a plan conceived to ensure service delivery to each community through cross-sectoral integration.

Infrastructure master plans are technical in nature but are influenced by, and have an impact on, other human settlement planning. For example, the SDFs demographic and spatial growth projections will typically be used to project the demand for services in different areas in the infrastructure master plans, while housing plans will indicate where services are required over what time period. These infrastructure master plans also typically indicate where future infrastructure capacity (and budget) is required. The ITP is inherently spatial and has a significant impact on the functioning of human settlements and so is discussed separately below.

Infrastructure master plans are often linked to conditional grant funding. For example, the Integrated

National Electrification Programme (INEP) requires a bulk infrastructure master plan, and the Municipal Water Infrastructure Grant is contingent on the WSDP (RSA, 2013). In addition, these plans are used to guide the spending of more general capital infrastructure grants such as the USDG (for metros) and the Municipal Infrastructure Grant (MIG) for non-metro municipalities.

Integrated Transport Plan

Metro municipalities are transport planning authorities and therefore, in terms of the National Land Transport Act (NLTA) No. 502 2009, are required to submit five-year

ITPs updated on an annual basis. According to the NLTA, the ITP is an essential part of the IDP and is integrated into other land-use planning. While ITPs have to include commuter rail planning and a freight strategy, these plans are duplicated by the parastatals responsible for their implementation (PRASA and Transnet), and therefore the Minister of Transport must approve the commuter rail section of the ITP. In addition, the MEC for Transport must approve the ITP in order to ensure alignment with provincial and other municipal plans. The Provincial Land Transport Framework, which is also a statutory document, must summarise the ITPs in the province and thus inherently consider them in its formulation.

The ITP is meant to guide all transport capital investment, including the spending of the former Public Transport Infrastructure and Systems Grant (PTISG), which was split into a Public Transport Infrastructure Grant (PTIG) and a Public Transport Network Operations Grant in 2013 (RSA, 2013). However, these grants also require specific operational plans based on an Integrated Public Transport Network Plan and financial modelling, which is an additional level of detail required to supplement the ITP.

City Development Strategy/Growth and Development Strategy/City Vision

The long-term vision required in the IDP is often derived from a separate plan known as a City Development Strategy, a Growth and Development Strategy or a City Vision. These plans have long time horizons (20+ years) and are both strategic and aspirational. They tend to

deal with larger questions of economic growth, human development and sustainability. Being non-statutory, they serve merely to guide other planning and set a strategic agenda, which is then converted into practical application through the IDP. They tend to have a wider scope than just the city, taking into account global shifts and national dynamics. DHS and SACN (2013) found that the latest versions of these plans have taken strong direction from the NDP (NPC, 2012). City visions are not fixed plans and are regularly reviewed and, despite being more strategic, are subsidiary to the IDP.

The South African Urban Strategies alignment study assessed eight of these plans from five metros[3] (DHS and SACN, 2013: 12) and found that

> [c]entral to many plans has been the re-thinking of the role of housing and human settlements in restructuring space to create better integrated cities. Local plans also need to be able to influence plans at a higher sphere; in other words, influence provincial and national policy to achieve alignment with local priorities and needs.

The study also noted that these plans are not required legally and, as there is no guidance on their content or preparation, a high degree of inconsistency was found.

Built Environment Performance Plan

In 2011 the Built Environment Performance Plan (BEPP) was introduced, as an eligibility requirement for metros

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3.   Ekurhuleni, Buffalo City, Johannesburg, Tshwane and eThekwini

to receive the USDG (RSA, 2011). It originated from the performance targets required for the former MIG for Cities, which was replaced by the USDG. However, a BEPP Guidance Note for 2014/15 circulated by the Cities Support Programme of the National Treasury (National Treasury, 2013) widens the scope of the BEPP to include the ICDG, NDPG, INEP, PTIG and Human Settlements Development Grant, all associated with the National Treasury's Cities Support Programme. In the 2014 Division of Revenue Bill (RSA, 2014) the BEPP is no longer an eligibility requirement of the USDG, but is a requirement for municipalities receiving the ICDG and NDPG.

THE BEPP IS NOW A STRATEGIC PLANNING TOOL.

The purpose of the BEPP has evolved. While it originally served as an implementation plan and reporting tool for the metro's application of the USDG, it is now a strategic planning tool to coordinate capital spending spatially in cities. It complements existing plans and does not replace them: 'Given the range and content of existing statutory plans the BEPP is placed in between the MSDF and IDP with an explicit focus on the social and economic infrastructure components of the built environment as it manifests in space' (National Treasury, 2013: 3). The focus remains on transforming the urban form and is thus correctly linked more to the ICDG than the USDG.

APPLICATION OF THE MUNICIPAL PLANNING FRAMEWORK IN PRACTICE

THE PLANS WITHIN THREE SOUTH AFRICAN METROS WERE ASSESSED IN TERMS OF THEIR USE AND SIGNIFICANCE.

The hierarchy and inter-relationships between the plans (which informs which), and how the plans are used to select projects for implementation, in order to draw conclusions about integrated human settlement planning within each metro.

eThekwini

A functional separation between 'planning' and 'implementation'

eThekwini has a Long-Term Development Framework (LTDF), which has been branded as 'Imagine Durban' and sets a development trajectory for 2040. The IDP (eThekwini Municipality, 2013a) draws from the LTDF to define the first five-year 'bite' at achieving the longer-term objectives. The current IDP contains eight plans and six strategic priority areas forming a development matrix. Plan 1 ('Develop and sustain our spatial, natural and built environment') incorporates all aspects of spatial planning, while Plan 3 ('Creating a quality living environment') includes human settlements and infrastructure. Plan 8 ('Financially accountable and sustainable city') describes how the budget is aligned to the strategic priorities of the IDP. Plan 1 and Plan 3 are most directly related to human settlements, but the separation of these two aspects of human settlement planning illustrates an apparent divide between the 'planning' and the 'implementing' functions in eThekwini. This probably reflects the fact that housing is institutionally aligned with the transport and engineering services (in the Human Settlements and Infrastructure Cluster) and not with spatial planning, which sits in the Economic Development and Planning Cluster.

THE CURRENT IDP CONTAINS EIGHT PLANS AND SIX STRATEGIC PRIORITY AREAS FORMING A DEVELOPMENT MATRIX.

The planning process in eThekwini has been described as an iterative process between the departments, which try and align their individual sector plans to the IDP principles. Final plans are then checked back against the IDP. The alignment processes take place at two levels. Firstly, at the internal IDP forum, the 'owners' of the other plans come together to present and discuss their plans, and then refine them to align better with the IDP. Secondly, discussions are held at a programme or project level about the coordination of services. The second level is particularly challenging because the people involved and the departmental priorities are constantly changing.

The SDF and the IDP are not believed to be in the 'mainstream artery' of implementation; the capital budget and the line departments are the implementers. Although there are an increasing number of productive cross-sector debates about prioritisation, many projects still get prioritised by sector departments for purely technical reasons, or as a response to ad hoc political pressure. Historically every line department has made its own plan, and the varying institutional capacity between departments has dictated which plan dominates. Some plans are strategic and include spatial considerations, while others are not. This causes tension between departments when trying to coordinate planning, highlighting the importance of organisational capacity within the municipality.

Planning comes together in the housing prioritisation model

The HSP is not a separate plan and is guided by the other planning processes in the city (eThekwini Municipality, 2011). However, it has not been updated since 2011 and refers to old versions of the SDF and IDP. Many of the challenges in eThekwini are reported to be spatial, and so improved location of housing is a major goal of the HSP. Key challenges identified are low densities, the lack of viable public transport and the cost of providing bulk services. Thus, the location of settlements in space is a key planning priority, but the availability of suitable land is a big issue.

The housing department's housing prioritisation model prioritises housing projects according to location using:

- Geographic Information System (GIS) buffers around major transport routes drawn from the ITP; and
- the Cost Surfaces Model, which calculates the bulk cost of servicing different areas within the city, given existing infrastructure network capacity.

The Cost Surfaces Model was also used to derive an Urban Development Line[4] (UDL) for the SDF and, through prioritising housing projects relative to this line, the HSP links to the SDF.

However, 20% of new housing developments are still located outside the UDL. The HSP is mildly critical of the SDF, noting that it is (was) outdated[5] and that the SDPs do not give the spatial guidance required (eThekwini Municipality, 2011: 98). The HSP also mentions alignment to: the CIP, the Access Modelling for community facilities and the Municipal Services Finance Model for long-term infrastructure requirements. Interestingly, in terms of external planning processes, the HSP states that it is aligned to provincial priorities but informs provincial planning and budgeting. The HSP also notes that the Housing Development Agency is involved in identifying land and in developing the Cornubia project[6].

IMPROVED LOCATION OF HOUSING IS A MAJOR GOAL OF THE HSP.

The housing prioritisation model is currently being updated and refined. However, an official noted that other subjective criteria are used to determine the final priority of housing projects. These include an even distribution of projects through the city, high priority cases, special cases and historical projects with heightened community expectations.

The current and future impact of grant financing

Since 1998 the municipality's housing vision has been to develop SHS. However, officials are critical of the housing programme and subsidy instruments, which do not facilitate SHS or produce products that the end users want, or types of development that the city would like to achieve – specifically, high-density units for low-income ownership. 'There is too much focus on chasing targets and churning out the numbers without taking

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4.   Equivalent to an Urban Edge.
5.   The HSP was prepared in 2011, and the 2006 SDF was updated in 2013.
6.   A mixed-use and mixed-income development incorporating 24 000 homes to the north of Durban.

a more closer look at urban design issues, orientation of buildings, creation of community space, creation of supporting land uses, etc.' (eThekwini official, personal correspondence).

Another two officials noted the influence of new national grants on reframing the city's investment priorities. In particular, the PTIG and the USDG have given more weight to public transport interventions and informal settlement upgrading respectively. The new ICDG has also resulted in spatial restructuring receiving added attention.

Current budget is not spatial

eThekwini has undertaken a process to try and balance the budget between economic and social spending (in line with the IDP). This has led to a strategic allocation of money to line departments but, within the departments, the allocation is believed to be less strategic and based on immediate technical priorities. The result is a sense in eThekwini that the investment decisions have lacked a spatial dimension. In theory this should come through the link between the SDF and the budget in the CIF. However, the SDF is weak on financial strategy data and notes (eThekwini Municipality, 2013b: 184):

> This assessment demonstrated a mismatch between the spending on key spatial locations and public sector investment in other areas of the city – a total of R2.94 billion being spent outside of the key investment locations. It was further noted that project life-cycles tend to be much longer than MTEF or even IDP periods, and it was not clear if the current mechanisms

are effective for long-term projects in view and in funds.

A process is underway to try and redirect the budget towards the spatial priorities in the city. One official believes that the reason why spatial planning does not have a significant influence on capital investment is because the plans are 'inert', not linked to the capital budget and do not have a champion. Part of the problem is that 'planners do not understand the capital budget process' (eThekwini official, personal correspondence). The main municipal strategies appear to be aligned at a strategic level, but the gaps are in 'the spatial expression of the main municipal strategies' (eThekwini official, personal correspondence).

Use of the BEPP to make human settlements investment more strategic

What appears to be missing is a short-term plan that takes the 'inert' plans (IDP, SDP, local area plans and precinct plans) and says what happens when – essentially a prioritisation process. This is the intention of SPLUMA, in introducing the CIF into the SDF, but does not seem to be recognised in eThekwini. An official felt that this prioritisation could rather happen through the BEPP process linked to the ICDG and will hopefully enable fiscal and sectoral integrations and spatial change in the metro. The BEPP, or a similar 'corporate spatial plan', could deal simultaneously with the 'breadth' challenges of providing universal basic services and the 'depth' issue of providing significant capital investment in spatially strategic locations.

Buffalo City

SDF is dominant in planning, but plans are poorly aligned

Buffalo City has a long-term CDS (BCM, 2007), but this plan is outdated and in the process of being updated to a new 30-year vision. The SDF lays out the policy response to the historical apartheid spatial pattern, which forms a section of the IDP (BCM, 2013a). The SDF is seen as providing spatial direction for human settlement development and informs both the BEPP and the Integrated Sustainable Human Settlement Plan (ISHSP). However, officials noted that the alignment is poor between the departmental plans and budgets, notably between engineering and planning. While Buffalo City has the full suite of planning documents, these appear to be fragmented and suffer from temporal misalignment.

The severe shortage of municipal land and protracted difficulties in acquiring state-owned land are frustrating the implementation of projects aligned to the SDF. Officials claimed that the SDF is not well appreciated and understood; external politics dominates over the intentions of the planners who conceived the SDF.

In theory, the ISHSP appears to be the ideal document through which to coordinate the integrated planning of human settlements (BCM, 2013b: 70):

> The ISHSP fits in between the Buffalo City Development Strategy (CDS) and the IDP, where it is seen as a strategic planning process intended to facilitate consensus regarding the policies and actions required to deliver a range of different types of accommodation in BCMM, within the broader framework of infrastructure, transport, economic and social development initiatives as set out in the Buffalo City Development Strategy and the 5-Year IDP.
>
> The ISHSP is more focused at identifying what is required for sustainable human settlement, with socio-economic elements/inputs becoming key driver(s) more than simply housing per se. That is, the Plan attempts to provide pointers towards what is required for communities to become more "sustainable" in the different localities across Buffalo City, with housing and associated services only forming part of the potential interventions.

The ISHSP is a 10-year plan that has been in the pipeline for six years but has yet to be published; it is due to be completed in 2014. Uncertainty and confusion has surrounded the status and future of this plan, which may be subsumed into the BEPP. While the ISHSP appears to have a broader human settlements focus, the more technical housing plans are derived from the HSP, which covers the period 2008–2012 and is updated annually as a chapter in the IDP. An official noted that the HSP was outdated and not linked to the current budget. The HSP is currently being revised but requires a finalised organogram in order to be completed.

The Transport Plan (BCM, 2006) was completed in 2006 and subsequently approved as the 2008–2013 plan. The

only review to date was in 2012, but updates are planned in a 2014–2019 or 2015–2020 plan.

Capacity shortage for planning

The municipal institutional structure has been in flux for a number of years; the final organogram was only approved in early 2014. Increased capacity is required to undertake truly integrated interventions in the future (BCM, 2013b: 69):

> In terms of the approved organogram for the Metropolitan Municipality there will be a co-ordinated Intervention Strategy relating to the development of Human Settlements in Buffalo City under the Human Settlements Department. Currently through the mechanisms of the SDF, the Housing Sector Plan, the Public Transportation Plan and the Water, Waste Water and Electricity Master Plans, the operational consensus is working towards building capacity to focus urban human settlement development in the priority areas proposed by the ISHSP (work-in-progress) over a 10-Year time frame.

The institutional instability and shortage of critical skills are mentioned in the planning documents as being an impediment to human settlement delivery.

Shift from housing to human settlements is externally driven

Some cross-sector planning discussions are taking place, but officials stated that overall human settlements management is poor. Although they believe that there

has been some shift in thinking, from housing to human settlements, the strong (politically driven) focus remains on top structures. A perception exists that the shift in thinking is coming from national government and is being imposed on the metro, as one official stated, '[o]verall though, the thinking is not emanating from within the city but rather from outside. So while we can go ahead with planning, implementation is misaligned thereto' (BCMM official, personal correspondence). Another official pointed out that '[u]ltimately, the city is still really only providing housing with services' (BCM official, personal correspondence).

Internally, councillors are putting pressure on officials to plan projects in every ward in order to satisfy constituents. This hinders the ability of the municipality to plan and implement projects that may not affect every ward but are required for strategic spatial transformation.

City of Johannesburg

Overall human settlement guidance provided by the GDS

The first City of Johannesburg Growth and Development Strategy (GDS) was approved in 2006, and the latest Joburg 2040 GDS Roadmap was approved in 2012/13 (CoJ, 2011). Figure 3 illustrates how the GDS links to the IDP and its associated Growth Management Strategy (GMS), which in turn informs the suite of spatial and operational plans. These plans then relate to the city budget through the CIF.

Figure 3: Hierarchy of policy, strategies and plans
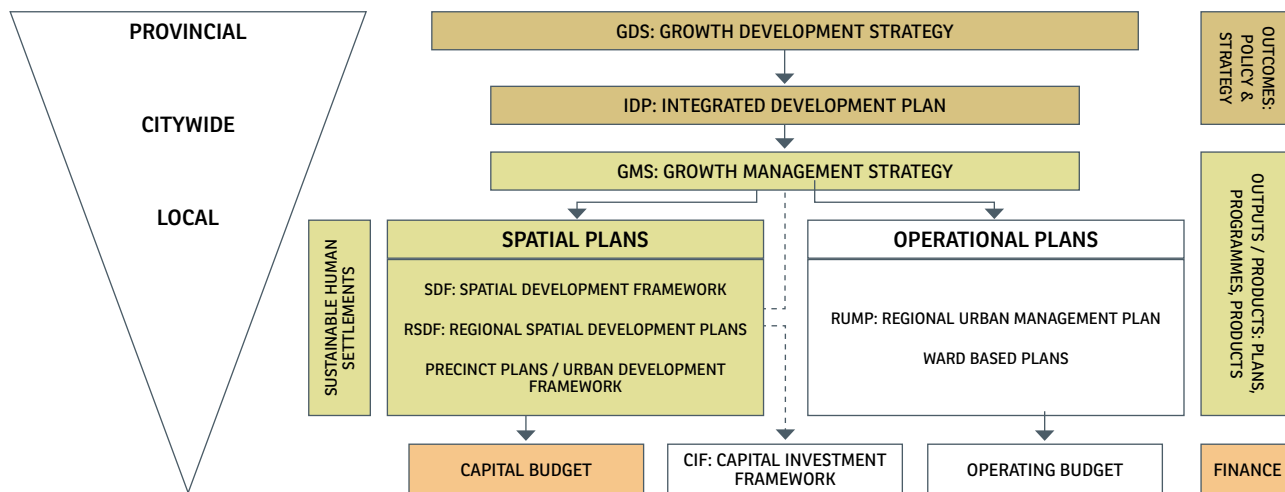
Source: CoJ (2010: 1)

While Figure 3 shows the IDP is near the top of the hierarchy of municipal plans, there is an ongoing process between the IDP, the SDF, the GMS, the CIF and the sector departments or entities.

Overall strategy is linked to the capital budget

The GMS and the CIF are the key plans that link the human settlements strategies contained in the GDS, the IDP and the SDF to the capital budget and, ultimately, to project selection. 'The Growth Management Strategy (GMS) interprets and prioritises the Spatial Development Framework (SDF) strategies from a spatial perspective and guides where short and long-term growth has to occur in the City.' (CoJ, 2013a: 43)

Initiated in 2008, the GMS was recently replaced by Capital Investment Priority Areas (CIPAs), which comprise:

- five marginalised areas: Ivory Park, Diepsloot, Alex, Soweto and Orange Farm
- transit-oriented development routes (Corridors of Freedom)
- informal settlements
- existing mixed-use nodes within the city

The CIF, through applying the strategies and guidelines of the SDF and CIPAs, is the method used by the City to identify and prioritise capital projects from which the City's medium-term capital budget is finalised and captured in the IDP and annual budget.

The CIF has two components. The first is a series of engagements with the sector departments and associated municipal entities to identify critical capital projects. The second is the production of a list of capital projects that meet the desired developmental and spatial outcomes of the City. Responsibility for the planning of the CIF sits with the Development Planning and Facilitation Directorate and the Department of Finance. The responsibility for executing the projects identified through CIF sits with sector departments (CoJ, 2010: Section 4, page 1).

The CIF uses a multi-criteria decision-making tool, the Capital Investment Management System (CIMS), to produce the prioritised list of projects that align City investment with the strategic agenda. The CIMS captures projects in planning phase from each of the line departments or entities and then prioritises these projects according to the parameters derived from the GMS/CIPAs; it is also used to track project implementation. Figure 4 shows how the criteria used in the CIMS explicitly include the strategic priorities of the GDS, IDP, SDF and GMS in project selection.

Figure 4: Criteria used in the Capital Investment Management System (CIMS)
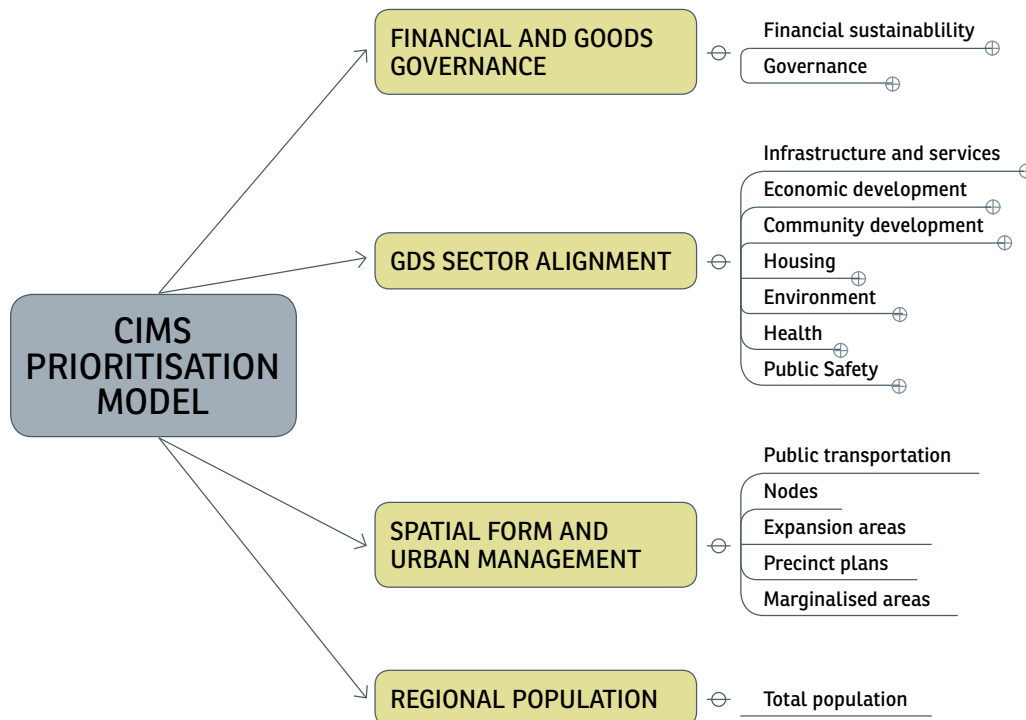
Source: Pienaar (2011)

Figure 5:   Capital projects in relation to CIPAs
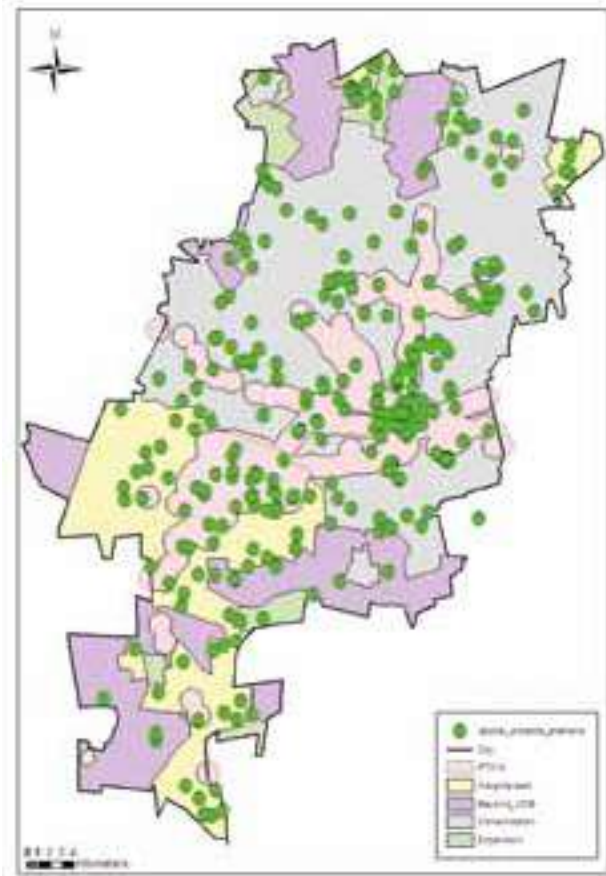
Source: CoJ (2010: 222)

As the CIMS is a GIS-based system, the result is a map of projects overlaid on priority investment areas (CIPAs), as illustrated in Figure 5.

The CIMS produces a prioritised list of projects, which feed into a round of inter-departmental discussions and then into an agreed three-year capital budget.

One problem with the use of an objective, criteria-based project-prioritisation tool is that it may not prioritise projects that have a very specific objective or motivation. A municipal official cited the case of the Lufhereng housing development in Soweto, a housing project of 25 000 units that was not prioritised in CIMS because it was not in the priority corridors. It will, however, be going ahead because it is a presidential flagship project. Cases where the prioritisation tool does not prioritise these projects indicate a problem either with the prioritisation criteria or with some aspect of the project that is not being acknowledged.

Sector plans feed into the overall strategic plan

In response to the need to provide a differentiated response to the urban housing need, the City has recently concluded the Sustainable Human Settlements Urbanisation Plan (SHSUP) that provides for a range of housing typologies. The SHSUP was 'primarily in response to National Government's request to ensure a more efficient utilisation of USDG funding due to the limitations of the "RDP type" housing model and the questionable sustainability of the urban form it has delivered' (CoJ, 2013a: 52).

The SHSUP's objectives are to look at the housing needs and appropriate typologies, specifically the challenges of urbanisation and the lack of affordable rental accommodation in the City (City of Johannesburg, [nd]: 92). The City has allocated a significant amount of the medium-term budget to land acquisition (R200-million) and implementation of the SHSUP (R160-million).

The City of Johannesburg also recently produced a draft Strategic Integrated Transport Framework (CoJ, 2013b), which explains that the ITP comprises four components: the framework, a database, an integrated transport network and detailed operational plans. The GDS places a strong emphasis on mass public transport, as a 'true "silver bullet"' (CoJ, 2011: 28), and on transport, as a key component of the urban strategy; this emphasis is carried through all the plans.

The BEPP is largely a summary of the existing strategic and human settlement plans in the City, with a focus on projects funded by the USDG (CoJ, 2013a: 5).

> The BEPP as a capital investment programme is informed by the City's approved Spatial Development Framework and aligned to the other long term plans namely, the Joburg Growth and Development Strategy 2040, as well as the medium term Integrated Development Plan (IDP) and Medium Term Budget.

However, an official expressed a sense that the BEPP did not emerge from an internally identified planning need. The plan would find more transaction had it been developed from scratch as a strategic document. At present it does not fit into the established planning processes and is therefore somewhat marginalised and not seen to be very useful.

The institutional structure in Johannesburg is complicated by the fact that municipal entities run the water services, electricity, solid waste, roads and transport and property development functions. Human settlement planning is undertaken in the master planning of all of these entities but is informed by the other strategic documents previously mentioned and, most importantly, by the IDP. The City also has a CIP covering all the infrastructure services to aggregate these separate master plans.

Planning framework is cohesive and well-coordinated
The City of Johannesburg has taken a proactive approach to human settlement planning, which has resulted in a strong and cohesive planning framework that aligns the GDS, IDP, SDF and sector plans. The final result is a capital budget and associated projects that respond directly to identified human settlement needs and municipal priorities (CoJ, 2013a: 52):

> Current planning rationale and thinking, entrenched in the City's SDF and CIPA, is committed to shifting the delivery of housing options away from in situ upgrading and "RDP-style" housing typologies and locations towards more sustainable and integrated housing solutions in significantly better locations associated with the public transportation networks and nodal areas of the City. There is however a realisation that unless these other forms of settlement can be delivered at scale, the current need for housing will dictate that delivery takes place along historic lines. The USDG has a critical role in providing renewed impetus and resources in realising a renewed and alternative delivery strategy – a strategy that can provide a model for other Cities and Towns to replicate in future.

LESSONS LEARNED FROM THE MUNICIPAL CASE STUDIES

CITIES FACE THE DILEMMA OF HAVING CITY PROCESSES AND PLANNING THAT HAVE BEEN ORGANISED AROUND SILO-BASED DEPARTMENTAL STRUCTURES AND PLANS.

Yet the concept of SHS requires a hierarchy of planning processes that are integrated from the highest level (of long-term vision) to the lowest level (of project plan) to realise a more strategic and transformative agenda.

To date, cities have achieved a level of integration in the long-term vision and even, to a large extent, in the IDP

that synthesises the various sector plans into an overall strategy. The long-term vision appears useful and able to situate the shift from housing to human settlements in a broader strategy, which results in traction within the municipality. Johannesburg has a prominent GDS driven by the Group Strategy, Policy Coordination and Relations Unit, whereas (in contrast) Buffalo City is in the process of developing a new City Vision in order to provide better strategic coordination between its plans.

At the level below the IDP, the sector plans are still largely drawn up independently of one another. The level of integration is determined by the degree to which municipal departments talk to one another, which in turn is a function of the municipal structure and the corporate culture of the particular municipality. The case of eThekwini illustrates that, while all the statutory planning may be in place, the processes fall short of achieving inter-departmental integration.

The historic weakness of spatial plans, specifically the SDF, to influence the patterns of investment has been noted in the literature and in the eThekwini and Buffalo City case studies. Spatial plans will only be implemented if they are linked to the budget. The introduction of a financial framework (the CIF) to accompany the SDF, as prescribed in SPLUMA, is an attempt to guarantee investment in the right places. This framework would specify the process of using the spatial investment priorities, as identified in the SDF, as criteria to select and prioritise capital projects. The process would include: defining the weighting of the various criteria used to select and prioritise projects; identifying who makes the necessary decisions; and establishing how

these decisions translate into council's approval of the capital budget for inclusion in the IDP. The case of Johannesburg illustrates how the strategic priorities of the city, many of them spatial, directly influence the prioritisation of the capital budget. The problem is always going to be whether the capital projects were determined in advance and then retro-fitted onto spatial plans, or whether the projects were conceived strategically and then budgeted for. While the strategic identification of capital investment requirements may be a long time coming, at least the planning framework provides the building blocks to make this happen.

Cities are also facing a trade-off between decentralised techno-centric planning (as appears to be the case in Buffalo City) and centralised space-based planning that tends to ignore the immediate priorities of individual line departments (where eThekwini has gone, although not following through on the integration of high-level planning). The meeting place between these extremes needs to recognise that: a) integrated capital investment planning requires identifying long-term priorities and strategic shifts that are often beyond the five-year time frame of an IDP, and b) spatial patterns are entrenched in space and take a long time to influence. This further highlights the importance of a longer-term vision, preferably with a capital investment strategy, that informs shorter-term plans.

The case studies show that the levels of integration and alignment are greater between particular sectors, such as between spatial planning and transport (in all three cities), or between housing, infrastructure planning and the budget (in the case of eThekwini). The

case of Johannesburg illustrates a high level of spatial integration of capital projects in all sectors through the use of the CIMS process.

The shift from housing to human settlements is two parallel processes: one from the national level (down) and one from the local level (up). Instead of the DHS, National Treasury has evidently led the top-down process, through the introduction of the USDG, the ICDG, the NDPG and the City Support Programme. Cities still heavily criticise the DHS for pursuing *the numbers* of housing delivery at the expense of *the quality* of human settlements. The case of eThekwini illustrates how the conditions associated with new grants have brought about a subtle shift in city planning to align with the national agenda. In contrast, Buffalo City has experienced this shift as an externally imposed strategic direction, which may have affected the language and format of planning documents but has not resulted in change at the practical implementation level.

Having realised that human settlement planning is about far more than houses, cities are driving the bottom-up process and have spontaneously developed integrated human settlement plans. The case of Johannesburg illustrates this proactive approach, where spatial priorities that align with broader national objectives form the basis of their project prioritisation process. This means that the new national grants, focusing on integrated human settlements and spatial integration of investment, have had little impact on planning (which incorporated these ideas anyway). Factors limiting the extent of this bottom-up process are municipal capacity and the resources and skills

to engage in these complex planning and logistical process, as seen most visibly in the case of Buffalo City.

The introduction of the BEPP was an attempt to align planning and the enabling investment in the built environment that is inherent in the concept of 'human settlements'. However, it was introduced into a planning environment that was already saturated with statutory and non-statutory plans. The guidance provided for the BEPP was initially over-ambitious and ambiguous. It ignored the entrenched planning and capital-allocation systems, which were already in place in cities and could not be re-directed overnight. As a result, instead of being a plan that integrated human settlement interventions, the BEPP became a 'cut-and-paste' agglomeration of existing plans and a re-statement of an existing capital budget, framed in the terminology of the USDG outcomes for compliance purposes. It remains to be seen whether the linking of the BEPP to the ICDG, and its explicit spatially transformative agenda, will improve the relevance and impact of this plan.

RECOMMENDATIONS

The IDP is the core – the rest is detail

The IDP is the core plan and can be improved to better integrate the human settlement functions. It contains all the elements to be able to fulfil this role and, in addition, is the only plan (along with the associated SDF) around which municipalities invite public participation. To do this will require an ongoing relationship between setting the principles and development priorities for sector planning and incorporating the prioritised list of projects. While lower-order plans can provide additional project detail, they need not (and should not) provide any strategic direction not included in the IDP. Gaps in strategic direction require revision of the IDP and not the introduction of another plan.

Be more explicit around how planning converts into projects

The link between the IDP priorities and the capital budget needs to be improved because the capital budget is the key to project implementation. The provision in SPLUMA for a CIF appears to fulfil this role, but the alignment of the timing and priorities of multiple departments involved in human settlement service delivery, not to mention the political priorities, is highly complex. The case of Johannesburg provides an example of a multi-criteria decision-making tool that can handle this complexity and provide strong spatial input into the capital budget process. Ideally, the capital budget should be allocated and reported upon spatially, in addition to the current sectoral allocation. In order to do this, a protocol for the allocation of city-wide or regional projects in space would need to be developed.

Think more about how cross-sectoral interactions actually take place

The shift from housing to human settlements is about accepting a higher degree of planning complexity, which requires a maturity in municipal administration and inter-departmental communication. Ad hoc processes and structures have sufficed to date, but examples show that these can be skewed by power relations and relative capacity differences within a municipality. In order for fully integrated human settlement planning to take place, cross-sectoral planning needs to be institutionalised and undertaken at the correct levels.

CONCLUSION

Planning for SHS and planning for housing are two fundamentally different things. SHS planning is about spatially coordinated investment in the right places at the right time, whereas housing planning is about setting up a project pipeline well in advance to deliver maximum housing opportunities as efficiently as possible. While housing planning can be done by a line department with good project management skills and access to sufficient budget, SHS planning requires a coordinated effort of all actors in the municipality over the various levels of planning. This is by its nature complex. What the three case studies have brought to light is that the national level policies, and the planning framework that flows from them, are adequate and (in most cases) appropriate for facilitating a shift away from planning housing projects, towards integrated planning of human settlements.

Municipalities need to recognise that SHS is not the ambit of a single municipal department, but is actually the core function of the municipality as a whole: to provide a range of services to citizens. Accordingly, the planning for these settlements is about municipal planning in general, not about sector planning. What is required is more internal coherence between municipal plans and how they cascade from one another to the point at which projects are selected and prioritised, combined with a clear and functional framework for inter-departmental coordination in the planning process.

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THE HUMAN SETTLEMENTS MANDATE:
A TALE OF TWO CITIES

Vuyo Zitumane

INTRODUCTION

THE PROGRESSIVE RIGHT TO ACCESS ADEQUATE HOUSING IS ENSHRINED IN SECTION 125(2)(B) OF THE CONSTITUTION.

The housing function is shared among the three spheres of government, as detailed in Schedule 4(A) of the 1996 Constitution and in the Housing Act No. 107 of 1997. The Housing Act clearly outlines the functions of the provincial government and municipalities in relation to housing, as well as the role of national government. The intent of the policy is for municipalities to progressively

manage the housing function, in recognition of the potential of local government – if adequately capacitated and resourced – to be a driver of development and a key implementer of government policy. This expanded role of local government is clearly stated in the Comprehensive Plan for the Development of Sustainable Human Settlements, known more commonly as the Breaking New Ground (BNG) policy, which represents a shift in emphasis, from building houses to developing human settlements (DoH, 2004: 22):

> The new human settlements plan envisages an accreditation of municipalities, particularly the nine metropolitan areas ... The framework will address various policy, constitutional and legislative aspects in order to enable municipalities to manage the full range of housing instruments within their areas or jurisdiction.

The BNG notes that cities must include their human settlement strategy and housing plan in their integrated development plan (IDP) and integrate their human settlements programmes and projects within their three-year capital investment plan, as required by the Municipal Finance Management Act (MFMA). It also recognises that municipalities will require intensive institutional reform and capacity building in order to respond effectively to the housing mandate (DoH, 2004).

In 2010, the government's Outcome 8 included accreditation as a sub-output (No. 3) and sets out the actions to be implemented to give effect to this new

mandate. It acknowledges that realigning the housing function among the three spheres of government would (The Presidency, 2010: 28):

- improve government capacity as a whole in housing delivery,
- focus on national and provincial government monitoring and support functions,
- enhance co-operation across the three spheres as a result of more clearly defined roles and responsibilities.

The approach taken is to progressively devolve the function to municipalities, through various levels of accreditation that will ultimately end with full assignment of the housing function. In this way, municipalities have the time to acquire the necessary capacity and comply with the accreditation requirements before the functions are devolved or assigned. The accreditation process takes into account the capacity of municipalities in all aspects of the housing function (including infrastructure, houses and services). Thus the approach is a differentiated one, as not all municipalities have the same capacity and resources.

The Nelson Mandela Bay Metropolitan Municipality (NMBM) and Buffalo City Metropolitan Municipality (BCM), both located in Eastern Cape Province, are at different levels of accreditation for the housing function. This chapter assesses and compares the institutional capacity of both municipalities, reflecting on the challenges and complexities associated with the accreditation process, and offering some findings and recommendations that may assist other municipalities.

WHAT IS ACCREDITATION?

LEVEL 3 ACCREDITATION GIVES THE MUNICIPALITY THE POWER TO UNDERTAKE ANY HOUSING FUNCTION THAT HAS BEEN PERFORMED BY PROVINCIAL GOVERNMENT.

Accreditation means that a provincial MEC responsible for human settlements recognises that a municipality has met certain criteria and standards, but requires additional support and capacity before taking on the full housing function (SALGA, 2012: 7):

> Accreditation permits the exercise of functions by a municipality on behalf of the MEC whilst further capacity is being developed. The financial accountability for these functions is retained by the responsible provincial accounting officer. Accreditation in itself does not transfer legal

and financial accountability for functions from one sphere of government to another. Legally, accountability for functions can only be transferred from one sphere of government to another through assignment.

The **accreditation process** is defined as 'a progressive process of capacitation, evaluated against pre-agreed criteria, leading to eventual assignment of all the functions related to the administration of national housing programmes' (SALGA, 2012: 8).

There are three levels of accreditation (see Table 1), which allow the different capacity levels among municipalities to be accommodated. Each level has specific requirements, ranging from adequate human resources, strong financial management capacity and accountability.

The Municipal Accreditation Framework of August 2012 outlines accreditation principles, which include (DHS, 2009: 14–15):

- Authority and accountability, which must accompany responsibility,
- Accreditation follows capacity, the level of which will depend on the level of accreditation,
- Funding follows function, and so system efficiency should be pursued,
- Enhanced cooperation across the three spheres of government, as housing remains a concurrent function and shared mandate across the three spheres of government.

Table 1: Levels of accreditation

	Level One	**Level Two**	**Level Three (assignment)**
Functions	Subsidy budget planning and allocations, priority programme management and administration.	Functions of level one delegation, including full programme management and administration of all housing instruments and programmes.	All functions at level one and two, as well as delegated financial administration.
Requirements for cities	Budget planning and prioritisation of projects, project assessments, project planning, contract administration, subsidy registration and quality assurance on construction.	Must have capacity to conduct project feasibility assessments and to register subsidies on the Housing Subsidy System (HSS), as well as have the required systems in place to install the HSS.	Must have adequate financial management and administrative capacity that is assessed independently by external assessors. Municipality must also demonstrate capacity for subsidy payments, transfers, financial reporting and reconciliation.

The NMBM and BCM are at different stages of accreditation and have encountered a number of challenges. After receiving level 1 accreditation in 2006, the NMBM received a compliance certificate for level 2 accreditation in 2011 (NMBM, 2010). In contrast, BCM is still at level 1, having been refused level 2, despite the CAPP recommending level 2 accreditation in 2011 (BCM, 2010). From about 2009, BCM's formerly strong planning and human settlements capability experienced a slow deterioration owing to institutional instability at political and administrative levels, as a result of a number of key positions remaining vacant. This led to gross underspending of the human settlements budget, which was one of the reasons given in 2012 for refusing the accreditation level. Other reasons included procurement-related challenges in human settlements projects (and resultant litigation).

The institutional capacity of the two municipalities is assessed through an examination of the following aspects:
- Organisational culture and structure, which are important for authority and accountability,
- Capacity and competencies, as the right people and skills are vital,
- Financial and information management systems,
- Governance, through political and public oversight,
- Intergovernmental relations.

ORGANISATIONAL CULTURE AND STRUCTURE

IN ORDER TO MOVE AWAY FROM THE TRADITIONAL 'BUILDING HOUSES' APPROACH TO A MORE EXPANDED UNDERSTANDING OF DEVELOPING SUSTAINABLE HUMAN SETTLEMENTS (SHS), A SHIFT IN MINDSET AND AN INTEGRATED APPROACH ARE REQUIRED.

Housing is no longer the preserve of one department but is the result of collaboration by a number of sector departments in the municipality, including departments responsible for town planning, transport and infrastructure delivery. It means that these departments have to align their business processes and decision-making criteria to the new approach towards human settlements.

Although this shift is reflected in both municipal human settlements strategies, a review of current practice within both municipalities indicates that the human settlements directorates continue to perform a housing function as opposed to human settlements development. This suggests that there is still a gap in shifting the mindset in the way of doing things, despite the strategies and plans that reflect the new mandate and approach.

Nelson Mandela Bay Metropolitan Municipality

The municipality has changed the department's name, from housing to human settlements and has a mission statement that clearly supports the new approach[1]:

> The municipality endeavours to build sustainable, integrated communities and develop new residential areas to an acceptable standard. The main purpose being to build sustainable communities, provide habitable stable and sustainable residential environments through the empowerment of SMMEs and the development of co-operatives being in the forefront and one of the most strategic initiatives.

The NMBM has assembled a multi-disciplinary unit – the Programme and Project Management Unit (PPMU) – to ensure the successful implementation of its development efforts. While the PPMU may be a useful addition in terms of playing a coordinating function, an organisational structure to facilitate integrated planning and delivery does not exist.

The NMBM has redesigned its human settlements structure, which is awaiting approval and implementation by the municipality. Thus, although the department's name has changed, the organogram on the municipality's website still refers to the Housing and Land Directorate (Figure 6). The Land and Planning Unit falls within the Housing and Land Directorate and is currently responsible for land identification, land planning, land use management, spatial development planning, social housing, land survey, architects, land administration, etc. The unit still has a significant amount of influence and authority in making decisions regarding land for housing development. The location of housing projects shows that these have largely been on the periphery (NMBM, 2013a). Other sector departments rarely question these decisions, even when they appear to be contradict the restructuring and transformation agenda of the human settlements approach. The view of officials within the human settlements directorate is that the planning department has some resistance to the current mandate, as it requires intensive collaboration, consultation and integration of planning.

Figure 6: Organogram Housing and Land Directorate

Source: http://www.nelsonmandelabay.gov.za/Content.aspx?objID=35

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1.   http://www.nelsonmandelabay.gov.za/Content.aspx?objID=35

Officials reported that politicians (and to some extent senior managers outside the Human Settlements Department) do not have the required commitment to implement the changes required in the shift from housing to human settlements. For example, they do not attend workshops and other initiatives intended to capacitate and empower them, and institutionalise the human settlements strategy and business plan. Therefore, the likely outcome will be poor understanding and an inability to conceptualise an appropriate plan to respond to and deliver on the human settlements mandate. This will in turn affect the capacity of the municipality to deliver on the goal of integrated and sustainable settlements.

Over the past five years, a major challenge has been the frequent shifts and changes in the leadership of the city, particularly in the human settlements directorate. In March 2014, the position of the Executive Director Human Settlements was filled, after being vacant for a significant period of time. This vacancy negatively affected the development of a new human settlements culture. It also delayed the development of a clearly defined strategy. The level of accountability for ensuring the shift from housing to human settlements is thus questionable.

While the department's Human Settlements Strategy and Business Plan for 2013/14 (NMBM, 2013b; 2013c) indicates an appreciation of the new approach, particularly at an administrative level, some departments favour building new settlements in areas where infrastructure already exists, which is contrary to the approved strategy.[2]

Buffalo City Metropolitan Municipality

Unlike the NMBM, Buffalo City does not have a culture of resistance to the new human settlements mandate, although the name remains 'housing'. The housing division forms part of the Directorate of Development Planning and its function is 'to create sustainable human settlements so that all residents have access to housing opportunities, which include rental accommodation or permanent residential structures'.[3] The municipality's IDP incorporates the Integrated Human Settlements Plan (IHSP), which was developed in 2004 (BCM, 2013). The IHSP clearly articulates the interface between human settlements and other relevant departments within the municipality, e.g. infrastructure and engineering, economic development and community services. However, in practice this interface is not happening. The plans and budgets are not aligned among key departments responsible for the delivery of the human settlements agenda; human settlement development is therefore not coordinated and aligned as it should be. For example, human settlements priorities do not influence the priorities of the departments responsible for infrastructure and engineering, which are determined by existing backlogs that date back 10 years. Furthermore, as in NMBM, planning for new settlements is still driven by existing infrastructure.

CAPACITY AND COMPETENCIES

AN IMPORTANT PART OF THE ACCREDITATION PROCESS IS THE DEVELOPMENT OF CAPACITIES AND SKILLS WITHIN MUNICIPALITIES TO HANDLE THE HOUSING FUNCTION.

Nelson Mandela Bay Metropolitan Municipality

The current Human Settlements Strategy and Plan of NMBM acknowledges the organisational capability demands of the development initiatives required by the mandate.[4] The NMBM appears to have the basic capacity required for delivering the human settlements mandate. The housing directorate has a number of professionals and personnel with skills in housing delivery, project management, planning, building inspectorate, GIS, land-use management, and housing beneficiary administration. In addition, the municipality has qualified town planners, engineers and project managers, as well as staff that possess financial control, legal, administrative, social development and facilitation skills.

The Budget and Treasury Office (BTO) in NMBM is adequately staffed with personnel who have an accounting background and belong to recognised professional bodies. Most senior managers in the BTO have been with the city for a long time and possess the necessary skills and qualifications. The critical vacancy of Chief Financial Officer (CFO) has been filled, which will hopefully assist in dealing with some of the challenges that have been identified in relation to financial management and accounting (NMBM, 2013c).

Buffalo City Metropolitan Municipality

BCM has approved a new macro and micro structure, which includes the creation (and filling) of 13 new positions to ensure alignment to the human settlements mandate and in anticipation of the next level of accreditation and eventual assignment of the housing function. The municipality is adequately performing the housing functions associated with level 1 accreditation. However, BCM has experienced internal instability and challenges caused by high staff turnover in the housing division and gross underspending of the capacity enhancement grant. Some senior executives have not had their contracts renewed or have not been replaced; this has created large capacity gaps, particularly within the human settlements directorate, where many positions have not been filled. However, after being vacant for a long time, the Executive Director post has finally been filled. These capacity issues need to be resolved, as they are hampering progress to the next level of accreditation.

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4.   Interview with Thabo Matiwane, Acting Director, BCM Human Settlements Directorate, 24 January 2014, East London.

FINANCIAL AND MANAGEMENT INFORMATION SYSTEMS

THE EXTENT TO WHICH A MUNICIPALITY COMPLIES WITH THE MUNICIPAL FINANCE MANAGEMENT ACT (MFMA) NO. 56 OF 2003 IS ONE OF THE TOOLS USED TO MEASURE ITS FINANCIAL CAPABILITY.

In addition, the municipality's human settlements function is subject to internal audit, risk management and the oversight of the Auditor-General in compliance with the MFMA.

A requirement for accreditation is the municipality's capacity to manage information through the HSS.

INTRODUCTION   INTERGOVERNMENTAL MUNICIPAL   HUMAN   POST   YOUTH, HOUSING & ROLE OF LAND   PUBLIC   RESEARCH STUDIES CONCLUSION   **65**

Funding Framework PLANNING   SETTLEMENTS INTERVENTION URBAN LOCATION MANAGEMENT PARTICIPATION

FRAMEWORK   MANDATE   ANALYSIS

The municipality has to ensure that all the enabling procedures and systems are in place to manage and coordinate subsidy management and administration. A fully integrated system allows the municipality to perform the required functions and services necessary to increase integrated human settlement development and efficient service delivery at assignment level.

Nelson Mandela Bay Metropolitan Municipality

NMBM has complied with a number of MFMA requirements, including the development of its IDP, annual report and annual financial reports. A budget and treasury office has been established, an audit committee meets on a regular basis, and monthly and annual housing reports are produced. However, concerns have been expressed regarding its procurement and supply chain system

The biggest challenge for NMBM, which has led to a qualified audit opinion for more than three consecutive years, is non-compliance with supply chain policies, which has resulted in irregular, wasteful and fruitless expenditure amounting to a total of R876.7-million. However, the qualified audit opinion does not mean a lack of the required skills but rather that a culture of non-compliance exists within the municipality. There have been concerns around tender irregularities, with municipal staff suspected of benefitting from these. In 2012/13 the Auditor-General cautioned that many of those responsible for irregular expenditure relating to non-compliance with supply chain management procedures are not disciplined.

The NMBM has undertaken to address the qualified audits and the concerns raised by the Auditor-General. This will include an implementation plan to be monitored by the City Manager, as well as a plan to strengthen integration between the IDP, Budget and Service Delivery and Budget Implementation Plans (SDBIP); to ensure that expenditure is adequately reflected against plans, as well as adequately accounted for. Strengthening supply chain and procurement processes is identified as a priority. These interventions are critical in improving institutional efficiency and functioning to deliver sustainable human settlements.
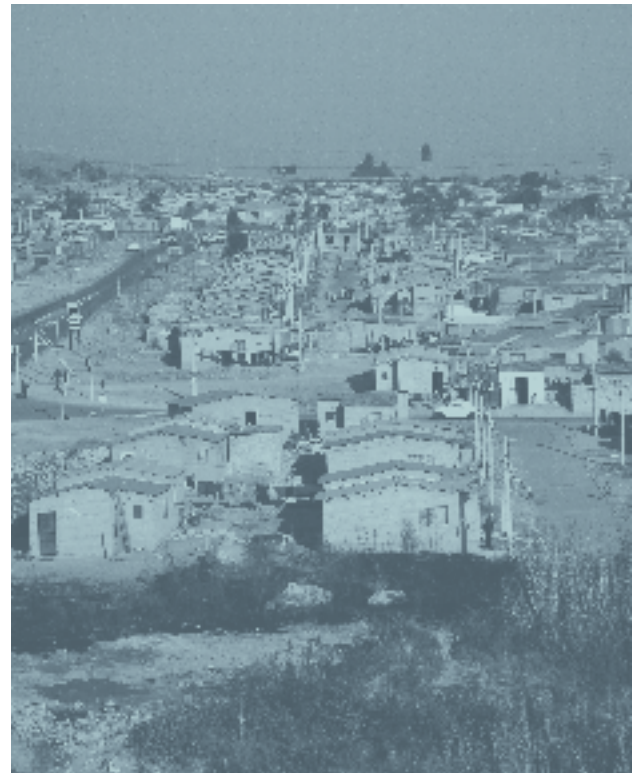
NMBM has commissioned the development of its own independent housing delivery systems, referred to as the Housing Delivery Management System (HDMS) and Integrated Land Information System (ILIS) to ensure that there is an interim arrangement to manage housing data. The HSS has been integrated and interfaced as a module within the HDMS, with add-on modules that include project tracking, reporting and administration. The system is designed to enable the municipality to effectively undertake the additional responsibilities and accountability associated with full assignment. The system takes into account programme management, general administration and financial administration. The HDMS has an entire module dedicated to the Contracts Management function that enables the municipality to conduct performance planning and monitoring in relation to the SDBIP, as well as the compilation of operating budgets. The system incorporates a function to action projects earmarked in the municipality's '7 Year Housing Plan'. It tracks and records the entire process, from identifying and preparing the projects to being in a state of readiness to start construction.

The provincial and national departments of human settlements have acknowledged and approved the full deployment of the HDMS and ILIS systems, which will (in conjunction with the effective coordination between these systems and the HSS) enable the NMBM to comply fully with all the systems requirements necessary to successfully manage and coordinate subsidy budget planning and allocation.

The present structure contains some duplications caused by the fact that certain functions have not yet been fully transferred from the province. One example of this is beneficiary administration. This duplication creates a potential problem and officials have indicated that it might corrupt the credibility of information if it is not addressed. This issue is not unique to NMBM; it is also a challenge for BCM. It has been raised at bilateral meetings with the provincial Department of Human Settlements (DHS), but so far has not been resolved.

Buffalo City Metropolitan Municipality

Like NMBM, BCM has received qualified audits from the Auditor-General relating mostly to non-compliance with supply chain and asset management. However, the major concern is that these matters have been raised in successive audits, suggesting a lack of concerted efforts to address these matters, despite audit action plans. Basic financial management capacity does not appear to be a problem. The BCM has a fully functional HSS system; however, the challenge is that the provincial DHS also has access to the system, which might corrupt the information. As a result of this direct access, the BCM has to verify the information and ensure quality control.

GOVERNANCE

IN TERMS OF THE MUNICIPAL ACCREDITATION FRAMEWORK, ALL MUNICIPALITIES THAT RECEIVE ACCREDITATION MUST HAVE ESTABLISHED GOVERNANCE, REPORTING AND OVERSIGHT ARRANGEMENTS.

The human settlements directorate must report to relevant governance structures within the municipality. An accredited municipality may wish to invite the provincial DHS official responsible for accreditation to participate as an observer in its human settlements standing committee in order to facilitate improved communication and interaction.

Nelson Mandela Bay Metropolitan Municipality

The NMBM is aware of the multitude of role players, structures and processes that are responsible for jointly processing the assignment of the municipality. The following municipal governance structures have been established and are in operation:

- Human Settlements Steering Committee, which brings together all the internal role players, both at a political and an administrative level.
- Human Settlements Implementation Coordination, which is a technical team and includes representatives from the provincial DHS.
- Community Liaison Forum, where community representatives and ward committees discuss the human settlement agenda.
- Joint Human Settlements Development Forum, which includes local stakeholders and the provincial DHS.

The most effective form of public participation is through the IDP Forum, where communities are consulted on their priority needs. The IDP integrates all the sector plans of the municipality, including the integrated human settlements plan. Over and above the IDP, the Community Liaison Forum provides an additional platform of engagement, specifically for human settlements. Another platform is through ward committees, but a number of these are dysfunctional as a result of political instability.

The political oversight structures are the Portfolio Committee and the Municipal Public Accounts Committees (MPAC). The Portfolio Committee meets monthly and receives monthly and quarterly reports for consideration. The MPAC considers the Annual Report, especially in relation to the municipality's performance and can hold any political office bearer or official accountable for poor performance and maladministration. The MPAC meets quarterly to discuss all matters within their mandate and thereafter submits recommendations to the Council for implementation. Those recommendations, if supported by Council, are then integrated into the annual business plans.

An area of weakness that needs addressing is that nothing appears to be in place to verify the outputs reported to the oversight structures, other than the Auditor-General's report. The effectiveness of the human settlements agenda is also limited because of an inconsistent level of understanding of the human settlements mandate and a lack of required competencies at a political level.

Buffalo City Metropolitan Municipality

BCM has an Oversight Committee in terms of Section 129 of the MFMA, which was established specifically to report on the institution's performance as reflected in the Annual Report (BCM, 2012). Areas of performance include audit outcomes, reporting framework, oversight structures and arrangements, anti-corruption strategy and systems. The Oversight Committee works closely with the Office of the Auditor-General and the Audit Committee, and is supported internally by the Internal Audit Unit, Compliance Office, Legal Services, Knowledge Management and Organisational Support.

BCM has also created a number of platforms for community participation.

INTERGOVERNMENTAL RELATIONS

A FUNDAMENTAL COMPONENT OF THE ACCREDITATION PROCESS IS TO SUPPORT ENHANCED COOPERATION ACROSS THE THREE SPHERES OF GOVERNMENT.

Nelson Mandela Bay Metropolitan Municipality

In NMBM, a structure meets on a bi-monthly basis, comprising representatives from the municipality, the provincial DHS, Eskom, and the departments of local government and traditional affairs and of water affairs. The municipality coordinates the meetings at which

its performance report is presented, aligned to the accreditation business plan, and other service delivery and institutional challenges are discussed.

The Chief Operations Officer's office is responsible for coordinating intergovernmental relations at NMBM. The position of Chief Operations Officer was vacant for a long time, which (as with other key positions in the municipality) has had an impact on the municipality and specifically on intergovernmental arrangements.

The weak intergovernmental interaction on the implementation of the new mandate is limited to ad-hoc engagement between the provincial and municipal DHS. The relationship between the province and the municipality is based on power and authority of one sphere over the other, rather than on collaboration and support. NMBM complains that priority projects contained in the IDP and submitted for funding consideration are overlooked, and the provincial DHS chooses which projects to prioritise.

Intergovernmental meetings are ineffective, as resolutions taken are not followed up for implementation. Matters of compliance dominate the meetings, rather than matters of planning, collaboration and support. The view, at both provincial and city level, is that the meetings may take place but do not yield any positive results. Furthermore, a subtle tension exists between officials: the municipality is often reminded that the function is accredited and not assigned, while the municipality feels that it has more capacity than the province with regard to implementation.

Buffalo City Metropolitan Municipality

The instability and conflict between the offices of the Executive Mayor and the Municipal Manager, which have plagued the BCM, have affected the relationship between the city and the provincial DHS regional office. Some planning and alignment between provincial DHS and BCM exists but is limited, and other sector departments, such as health, education and economic affairs, do not participate at the IDP Forum meetings.

The other structure (as for other municipalities) is at a MUNIMEC[5] level, which is not sufficient to deal with the human settlements agenda. The Department of Local Government drives the MUNIMEC, and human settlement issues are just part of its agenda, which covers many other priorities. For human settlements to be institutionalised and delivered effectively, a separate platform of engagement is needed where human settlements is the main agenda.

For both BCM and NMBM, despite regular engagement between the municipality and the provincial DHS, the intergovernmental relations programme is not very effective, as engagement is limited to administrative issues. Other departments are invited but do not attend the meetings. Officials in both municipalities are of the opinion that the provincial DHS is unwilling to hand over responsibility, which results in insufficient support for devolution and, consequently, institutional inefficiencies and challenges.

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5.   Forum of Municipalities and Members of the Executive Councils

CONCLUSION

The municipalities of Nelson Mandela Bay and Buffalo City, both located the Eastern Cape Province, are at different stages of accreditation for the housing function. NMBM was awarded level 2 accreditation in 2011, whereas BCM is at level 1 and was refused level 2 accreditation in 2011. The institutional capacity of the two municipalities was assessed, based on their organisational culture and structure, capacity and competencies, financial and information management systems, governance and intergovernmental relations.

Despite a stated commitment to 'get their house in order' in preparation for progressive accreditation and eventual assignment of the housing function, significant institutional challenges exist within both municipalities. These challenges require attention, most notably the concerns raised by the Auditor-General about supply chain and procurement irregularities.

Political instability has affected administrative efficiency, resulting in a lack of strong leadership to guide, coordinate at a strategic level and drive the shift from delivering houses to developing integrated, sustainable

human settlements. Instead, municipal human settlements departments have been left with very little authority and power to influence other departments to align their planning and implementation approach to the new agenda. In addition, human settlements have not been integrated as a key performance area for the relevant departments, which means that the new approach has not been institutionalised.

In addition to their internal challenges, the two municipalities highlighted their concerns with the provincial DHS. Intergovernmental relations (particularly with the province) are ineffective and do not yield the desired results. The relationship between the province and the municipalities is driven by compliance and is based on reporting and perceived control, rather than on support, coordination and monitoring, which is critical to the success of the human settlements agenda. The provincial DHS also selects projects for funding without proper consultation to ensure alignment with the relevant municipal plans. From its side, the provincial DHS is frustrated by the legal challenges that the two cities face because of supply chain management irregularities and non-compliance.

While both municipalities are aware of the challenges and shortcomings in respect of accreditation – the inventions needed are clearly articulated in their business plans and integrated human settlement strategies – in practice there is little implementation to illustrate a shift from the traditional housing approach. The extent to which both cities have implemented these interventions will determine their capability in the future to remain accredited and capable for assignment of this function.

The NMBM Human Settlements Strategy and Plan acknowledges the organisational capability demands of the development initiatives required (NMBM, 2013b). Several plans have been developed that clearly articulate the direction and interventions that the city will take in gearing up its institutional capacity to implement the devolved functions. However, to date there are few, if any, success stories that illustrate a shift from the traditional housing approach. The implementation of this business plan at NMB will not adequately address all the transformation challenges that currently exist, as the new structure, the accountability mechanisms and governance that is proposed in the strategy have not yet been operationalised.

In their Accreditation Report to Council (BCM, 2010), BCM indicates that the new structure and the business plan for level 2 accreditation has not been implemented. Under a newly approved organogram, BCM proposes a coordinated intervention strategy that falls within the Housing Division. After some years of institutional instability, resulting in underspending of the human settlement budget, key positions (such as the divisional executive director) have been filled.

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Funding Framework   PLANNING   SETTLEMENTS   INTERVENTION   URBAN LOCATION   MANAGEMENT   PARTICIPATION
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RECOMMENDATIONS

Both municipalities have good plans in place, but these plans have not been implemented because of political instability and high staff turnover and changes. There is no evidence in either city that the human settlement agenda is driven from the highest administrative office. Yet, the central point of responsibility must lie with an office that has the highest authority to drive human settlements agenda. In NMBM and BCM, the political arm of the municipality must be urgently stabilised, as it is affecting the entire administration. Ensuring the successful implementation of human settlements requires the political structures to play their oversight responsibilities effectively.

Many skilled employees have resigned in the last three years, and attracting and retaining the required skills will be difficult under the current circumstances. Therefore, the new organograms reflecting the revised organisational structure must be implemented and populated.

Both NMBM and BCM must continue to strengthen their financial management capability and accountability, particularly relating to supply chain management. The recurring qualified audits are a reflection of the lack of governance and weak internal controls, and will affect their accreditation status.

The provincial Department of Human Settlements must focus on building the required capacity within municipalities and on strengthening relations at local government level. There seems to be duplication of

functions and reluctance by provincial departments to devolve certain functions, which is creating tensions between the two govermental spheres.

The fact that there is very little implementation of interventions articulated in the accreditation business plans of both cities is an indication of a weak monitoring role by the national DHS over and above the challenges that have been stated in the report. Municipalities have not taken the delivery of the human settlements mandate seriously, despite being accredited for a number of years, as there is very little implementation of this mandate.

The relationship between the two municipalities is also not sound and should be improved, as a closer relationship could assist in learning and engagement that could strengthen the current capacitation and accreditation processes.

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POST-INTERVENTION ANALYSIS:
THE EVOLUTION OF HOUSING PROJECTS INTO SUSTAINABLE HUMAN SETTLEMENTS

Sarah Charlton, David Gardner and Margot Rubin

INTRODUCTION

SOUTH AFRICA'S HOUSING PROGRAMME HAS BEEN LAUDED LOCALLY AND INTERNATIONALLY[1] FOR THE SCALE OF DELIVERY AND CONTRIBUTION TO THE DEVELOPMENT OF HOUSING FOR LOWER-INCOME HOUSEHOLDS.

However, despite the extent of state-provided housing,[2] little is known about what happens once the housing units have been completed and handed over to their new owners. This appears to be because research has largely focused on other dimensions, such as the nature of the property market and how RDP units[3] are traded (ULM, 2007a; 2008); delays in registering the titles of state-subsidised

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1. In 2005, then Minister of Housing Lindiwe Sisulu received an award from the International Association for Housing Science in recognition for outstanding contributions and achievement towards improving and solving world's housing problems (SA Government Online [nd]). South Africa's housing programmes and projects have received numerous UN Habitat Scroll of Honour Awards: in 2003 Minister Sankie D. Mthembi-Mahanyele, in 2009 the Alexandra Renewal Project and in 2010 Johannesburg Social Housing or JOSHCO (UN-Habitat, 2013).
2. According to SA Cities Network, the figure is currently estimated to be three million housing opportunities consisting of subsidised free standing houses, serviced stands and recent social and rental housing.
3. These are units built under the Reconstruction and Development Programme (RDP), the socioeconomic policy framework implemented by the post-1994 democratic government aimed at improving the standard and quality of living for all. RDP house has come to mean any of the fully state-subsidised units that are provided to beneficiaries earning less than R3,500 and over which beneficiaries are given full title.

units (Hoosen and Mafukidze, 2008; ULM, 2011a); and aspects of the financial, social or economic dimensions of these houses as assets (Lemanski, 2009; Napier, 2007; Nell et al., 2011; Pillay, 2008). Studies have evaluated beneficiary satisfaction with the quality of the house and the settlement (Aigbavboa, 2010; Aigbavboa and Thwala, 2011; Mehlomakulu and Marais, 1999; Moolla et al., 2011), or have extended this focus to include beneficiary perceptions related to the receipt of a house (PSC, 2003; Zack and Charlton, 2003). A few notable exceptions have considered more directly the post-occupancy condition, for instance the 2011 Housing Asset Study (Nell et al., 2011), which examined changes to RDP units and investment levels in three settlements in South Africa.

A further body of work contains familiar critiques of the housing programme, such as the poor location of many RDP settlements, far from employment opportunities and higher order social amenities (Biermann and Van Ryneveld, 2007); the extent to which settlements reinforce apartheid geographies (Huchzermeyer, 2003); the maintenance of historical patterns of land ownership and exclusion (Bond, 2000; ULM, 2007b); and the increasing construction and maintenance costs but potentially declining utility of such settlements. Many consider that the settlements contribute to urban sprawl and perpetuate low density development, in contravention of international thinking, as well as national and municipal plans and spatial strategies (FFC, 2012). For others, the size, design and limited utility of the housing 'product' is considered inappropriate for the market, with not enough thought being given to the income and survival strategies

of lower-income households as well as the relationship between housing and income-generating activities (Khan and Ambert, 2003). Concerns have been raised over the quality of the housing provided (Marx, 2003), its negative impact on health of residents (Govender et al., 2010), and the tenure format and restrictions on resale built into the title deeds (Marx, 2003), as well as the quality of the environments and public spaces constructed through the housing programme.

Investigations by the state have concentrated on who is occupying the house and whether the occupant's details correspond to the records of the Department of Human Settlements (DHS) and the Deeds Registry. Most post-occupancy surveys are concerned with matching the sitting tenant with the owner of the record, although the Western Cape Occupancy Survey of 2008 also considered the impact of the housing on peoples' lives (Vorster and Tolken, 2008).

A DEEPER UNDERSTANDING IS NEEDED OF THE INTERNAL CONDITIONS OF SUBSIDISED HOUSING AREAS

This chapter seeks to go beyond interrogating the policy or the practical design and implementation of housing, to evaluating the lived experience in these housing developments. A deeper understanding is needed of the internal conditions of subsidised housing areas, one that goes beyond the assessments and critiques sketched

above. A further layer of description and analysis will assess the contribution that subsidised housing makes to the lives of beneficiaries and inform how these neighbourhoods can be understood, managed and further developed. Therefore, the chapter links the discussion of RDP neighbourhoods to other, more established residential neighbourhoods in South African cities that are exhibiting similar trends and transformations. In this respect, RDP settlements are not exceptional and need to be looked at within a broader context. Yet, in their relative newness, in the concentration of state resources they represent, and in the expectations loaded onto them, they offer a particular window into low-income neighbourhoods.

GOVERNMENT APPEARS TO BE UNCOMFORTABLE WITH MANY OF THE CHANGES BEING MADE IN HOUSING SETTLEMENTS.

The changes unfolding within settlements show that, although state-subsidised housing units provide a starting point, modifications are often necessary to make these basic investments suit the households' most critical needs and changing demands over time. Residents incrementally change, adapt and refit their units and neighbourhoods in ways that make the units more usable and appropriate for their needs than the original design. These alterations also shift units away from purely residential purposes to providing platforms

for a range of income-generating activities and livelihood strategies. They change the nature of land use in the settlement, from essentially residential to more diverse uses – akin to the 'mixed uses' many city plans call for – including retail, services, community support, religious uses as well as sporting and recreational options. Thus the changes at the stand and individual scale may cumulatively contribute to creating neighbourhoods, which reflect important dimensions of sustainable human settlements (SHS) that are mostly lacking when units are initially handed over.

From comments made in media briefings and the public realm, government appears to be uncomfortable with many of the changes being made in housing settlements[4]. At both national and provincial level, housing ministers and officials have expressed concern about what they see as inappropriate behaviour and non-compliant practices in housing settlements[5,] such as people selling houses 'prematurely', renting out houses and using houses

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4.   This is despite the fact that early policy on housing in South Africa thought of the original houses as 'starter units', which were intended to be incrementally built up and expanded and changed over time (Charlton and Kihato, 2006).
5.   MacKay, M. 2003. Many RDP homes sold to criminals – W Cape MEC, IOL news, April 16 2003, http://www.iol.co.za/news/south-africa/many-rdp-homes-sold-to-criminals-w-cape-mec-1.104895#.U0emQ_mSyVI (accessed 10 April 2014); Masinga, S. 2010: Eviction of illegal RDP house owners, SA Government News Agency, 02-2-2010, http://www.sanews.gov.za/features/eviction-illegal-rdp-house-owners (accessed 10 April 2014).

for non-residential purposes such as businesses (for example North West Provincial DHS, 2010). There is a strong sense from the state that 'the government builds houses for people to live in, not to rent or erect shacks in their yards' (Gordon and Nell, 2006: 52). Thus alterations such as the building of backyard units in subsidised settlements 'are vilified as an agency "problem" (i.e. blaming homeowners' stupidity, ignorance and ingratitude)' (Lemanski, 2009: 480). In this regard, the case of backyard units in RDP settlements is instructive, as historically municipalities have (at best) ignored backyard dwellings, seeing these units as transitional (Bank, 2007) and (at worst) demolished these units and additional structures accommodating land uses such as spaza shops and hairdressing salons (Gardner and Rubin, 2013). Local authorities and traditional leaders have justified demolishing backyard units by citing concerns such as overcrowding or over-use of infrastructure beyond thresholds for which it was designed; perhaps underlying all concerns is a pre-occupation with these additional uses as 'a corruption of modernity and order' (Shapurjee and Charlton, 2013: 654).

Instead of seeing these changes as a corruption or failure of a planned settlement, more careful analysis is needed to understand how they contribute to SHS and the positive and negative aspects that result. Such changes should be viewed as spontaneous modifications by individual households, showing how settlements evolve from an initial base of key state infrastructure without state intervention. Furthermore, in many cases these modifications are driven by a clear understanding of both the utility provided by subsidised houses and their potential to operate as a framework for the longer-

term improvement in beneficiaries' lives. This chapter describes some of these modifications – discussing where they 'work'; how they 'work' (and for whom) and where (at times) they have not worked from a conventional viewpoint. 'Working' here relates to settlements that show improved utility and amenity for their residents, which leads to greater sustainability, enhancing households' ability to live thereby providing a useful platform for further life improvement. The more positive modifications and evolutions contribute to more SHS and should be supported and guided rather than 'criminalised'.

THE DEVELOPMENT OF HUMAN SETTLEMENTS IS A LONG-TERM PROCESS, NOT A ONCE-OFF INTERVENTION.

These contributions to SHS occur across a few axes. The first is to do with scale and, more specifically, how a household and a specific property or unit can be sustainable and thereby contribute to the sustainability at the precinct, neighbourhood and (finally) settlement scale. A second axis concerns the economic, social, political, spatial and environmental dimensions of a SHS: what the household does (economically, socially, politically, spatially and environmentally) to contribute to or retard the development of SHS, at the scale of their home or unit, the precinct, neighbourhood and settlement. Underlying this thinking is the notion that the development of human settlements is a long-term process, not a once-off intervention, and that households (and the state) take part and contribute to this process in a variety of ways.

Finally, the context in which SHS is viewed is essential and goes beyond general principles and performance criteria. The key contextual point relates to the extent of unemployment in the country, the paucity of jobs, and thus the imperative for most households in the RDP income band – almost by definition – to pursue other forms of income generation. This chapter considers how this economic driver intersects with new settlements, which were conceptualised predominantly as residential or conventional[6] mixed-use developments, and the resulting transformations. Income-generation activities are therefore not only found in the obvious and planned areas of economic opportunity in cities, separate from neighbourhood settlements. As a result of expensive and cumbersome transport systems, and the lack of formal jobs, ways of bringing in income also proliferate close to where people live.

The chapter strives for a balanced approach and notes some of the changes or modifications that could potentially have negative impacts on a range of urban actors, including households and local authorities. It does not blindly support these largely unsanctioned and unplanned settlement transformations but rather acknowledges when adaptation and change contribute to or retard SHS development. These transformations have implications for local authority planning frameworks, maintenance and urban management, and so suggested directions are briefly explored. However, the main focus is on discussing the changes and their possible contribution towards SHS.

Two separate but inter-related areas of investigation are relevant. First, the lack of empirical research into how people make use of their housing benefit post-handover: how the housing is occupied, used and changed over time. The second focus is the longer-term nature of these settlements created through the the state's housing programme, exploring how the changes made can assist in transforming housing projects into more SHS.

The chapter is divided into four sections. First, housing transformations from other contexts show that these occurrences in RDP settlements are a familiar phenomenon internationally. The second section discusses the various forms of change that take place and uses a four-part taxonomy (adapted from Charlton, 2013[7]) to structure the analysis, looking at: (1) physical and land-use changes made to the property or stand (e.g. building additional structures for commercial or residential purposes); (2) cosmetic or substantial changes made to the houses (e.g. painting, adding on rooms or complete use transformation and/or additional storeys); (3) tactics used by households to retain their use and enjoyment of RDP houses, especially when the units do not necessarily suit their lives or livelihood strategies; (4) changes to the neighbourhood that contribute to sustainability over time. This last section provides some generalised pointers on what local authorities could potentially do to support the more positive aspects of spontaneous change and so contribute to the longer-term goal of converting South African cities into SHS.

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6.   Allowing for formally designated parcels of retail, commercial or social facility land, which anticipates shops or businesses of a certain kind.
7.   Sections of this chapter are drawn directly from Charlton's (2013) PhD.

MODIFICATIONS TO GOVERNMENT HOUSING: INTERNATIONAL EXPERIENCE

THE PRACTICES OF ALTERING AND ADDING TO HOUSES, AND EXPANDING THE TYPES OF ACTIVITIES OCCURRING ON SITES ARE NOT UNIQUE TO RDP SETTLEMENTS IN SOUTH AFRICA.

A wide variety of changes to government-built housing[8] are described in Egypt (Ghannam, 2002; Tipple, 2000), in Ghana and Bangladesh (Tipple, 2000), in Zimbabwe (Schlyter, 2003; Tipple, 2000), in Ethiopia (Ejigu, 2012), and in Georgia and Macedonia in Eastern Europe (Bouzarovski et al., 2010). Tipple (2000: 36) contests the typical official view that these changes 'build slums', arguing instead that they constitute 'a valid housing adjustment mechanism', which provides more housing stock and more space for households. For example: the unanticipated extensions to apartments in post-communist cities in the Balkans and Caucasus 'spatialise' household-coping strategies and embody a kind of 'DIY urbanism', which in this case is tolerated by the authorities and generally accepted by the local population (Bouzarovski et al., 2010: 3).

In ground-level accommodation, the space in or around the house can be key for income generation (Schlyter, 2002), although housing studies have neglected the increased use of home space and household labour to earn income (Kellet and Tipple, 2003). Poverty alleviation is often an aim in housing policy interventions (Schlyter, 2003), but city management authorities often do not support the particular forms that this might take – such as sub-letting (Kellet and Tipple, 2003), with a particular 'moralistic bias' condemning private income generated from state-subsidised housing (Tipple, 2000: 53 with reference to Strassmann, 1987). Income generation might involve housing transformations (Tipple, 2000), physical alterations and extension to houses or properties made by their residents, such as rooms built for lodgers, or family members (Schlyter, 2003). In addition to expanding space for households, housing transformations deliver rental accommodation, introduce built-form variety and, on balance, 'improve the social, economic and environmental quality of the living and working environment' (Tipple, 2000: 137). These qualities can be found in modified RDP housing settlements and are explored in the next few sections.

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8.   Transformations also occur in middle-income neighbourhoods, such as that described by Anyamba (2011) in Nairobi.

CHANGES MADE TO SUBSIDISED HOUSING DEVELOPMENTS

FOUR TYPES OF TRANSFORMATIONS ARE EVIDENT IN RDP SETTLEMENTS: THE PHYSICAL AND ACTIVITY CHANGES ON THE SITE (WHICH HAVE THE BIGGEST IMPACT ON SHS), CHANGES TO THE HOUSE, CHANGES IN THE COMPOSITION OF HOUSEHOLDS AND CHANGES AT NEIGHBOURHOOD-LEVEL.

Changes on the site: new land uses and activities

Beneficiaries of state-subsidised housing make a wide variety of physical modifications to their properties, including building secondary 'backyard' dwellings. These are constructed from temporary materials, such as corrugated iron, wood, cardboard, and plastic, from conventional materials, such as brick or block and mortar, and by less conventional means such as

concrete panels and prefabricated systems. 'Backyard' dwellings may be self-contained units with private access to toilets and washing area but generally include access to shared, external ablutions. There is also increasing evidence of small-scale, multi-room tenements being constructed, generally comprising a number of rooms with shared ablutions on one site. Most are single storey, but incidences of double or multi-storey constructions are growing and at times replace the original structure on the site (but are still controlled and maintained by private owner-landlords). Aside from residential changes, households have also developed commercial and retail spaces, containing a wide range of activities including shops, salons, service providers and small-scale commercial operations (Gardner and Rubin, 2013).

A recent study, undertaken for the South African Local Government Association (SALGA), looked at examples of subsidised properties where modifications have been made for commercial or residential purposes, in Du Noon, Diepsloot and Cosmo City, among others (Gardner and Rubin, 2013). Cosmo City has increasing numbers of backyard rooms, but the municipality and developers strictly control the urban management in the area: the number and quality of the units are reviewed, and official permission is required before construction can take place. In Du Noon and Diepsloot, spontaneous construction has taken place in a largely unregulated and divergent manner. Du Noon is a well-located, subsidised housing settlement outside Cape Town, close to an industrial park. A number of owners of subsidised units have replaced their original units with multiple-room, single- or double-storey tenements that have shared ablutions

and up to 20 rooms per site. Diepsloot, which is located to the north of Johannesburg, has benefitted from the building of some subsidised units. However, many of these areas have experienced 'reinformalisation', whereby many of the RDP beneficiaries have constructed multiple backyard shacks, making it hard in certain areas to identify the original subsidised unit.

MANY PEOPLE ADD ROOMS IN ORDER TO CREATE ADDITIONAL LIVING SPACE.

All of the above subsidised housing beneficiaries constructed additional units in order to meet their own household needs and/or the significant demand for residential accommodation and retail spaces within these areas. The shortage of accommodation, especially in well-located areas with access to economic opportunities, is a major demand-driver in all three settlements. Given the very low income of the RDP beneficiaries (by definition, the original household incomes are below R3,500 a month), additional income is a common reason for constructing and renting these units, although many people add rooms in order to create additional living space for separate households or family members linked to the main beneficiary household (Carey, 2009; Gardner, 2006). Densities vary significantly for the three settlements: up to 20 living units per stand in Du Noon and Diepsloot, but, on average, only one to three additional rooms per stand in Cosmo City (Gardner and Rubin, 2013). In Diepsloot, construction materials are often temporary and access to amenities is generally communal, while in Cosmo City the materials are formal and obey municipal

building regulations. The difference is largely due to the highly regulated environment in Cosmo City, which is an urban management partnership between the City of Johannesburg and the project's developers (Gardner and Rubin, 2013). Research from Cosmo City also shows the importance of rental rooms as accommodation for working non-South Africans (Bhaila, 2013). The provision of additional rental units reduces the reliance on the state for subsidised accommodation, and they are often better suited to the specific needs of smaller households at a specific point in their life cycles, such as students, new couples and new entrants to the workplace.

Aside from additional residential opportunities, the study by Nell et al. (2011) revealed instances whereby the original building also contained home-based enterprises, including selling ice-creams, running crèches from a room in the house or baking goods for sale. One recipient in the study had started very small-scale farming on the plot for family use and sale, while a second recipient explained (Nell et al., 2011: 37):

> She had to find a means to generate income for her struggling family. She started to sell "soup bones" from her house. This business was so successful that she was able to use the profit from the business to build a separate shack in her yard from which she could operate the business. The business continued to flourish and she has now expanded to operate a full spaza shop. The shack was also converted to a formal structure (brick built garage) from where she operates the spaza shop.

These additions by households to their properties satisfy some of the SHS goals and aims, such as increasing population densities to sustain key activities and ensuring basic services and facilities are available locally within the neighbourhood. In keeping with the goals of a SHS, such additions help to densify neighbourhoods, decrease average household sizes and create additional accommodation. They contribute to the development of mixed housing and tenure that include lower-cost rooms-for-rent. They also provide consistent income streams, which help to diversify the income sources and stabilise the socioeconomic situation of lower-income subsidised housing beneficiaries. Densification occurred in all three of the settlements cited in the SALGA study (Du Noon, Cosmo City and Diepsloot) and is generally a very positive development. In principle, higher densities are key criteria of SHS (as a certain threshold of resident population is needed to sustain certain amenities and services), and a persistent criticism of RDP settlements is the low-densities of their initial layouts. However, densification can lead to overcrowding and over-use of available engineering infrastructure and resources, as is the case in Diepsloot. Therefore, the extent of additional coverage and of additional population relative to the capacity of engineering services needs to be considered.

The use of properties for commercial, retail or manufacturing purposes (e.g. convenience stores, crèches, salons or small-scale manufacturing) helps to move settlements away from mono-functional developments and expands the range of goods and services available in convenient proximity to residents. However, these activities can also have negative impacts and externalities, such as social, environmental and health concerns emanating from people at drinking establishments, power tools such as cutting machines in small-scale manufacturing or repair shops, smoke, fumes and potential contamination. The extent of these impacts varies between and within settlements and needs local investigation to determine their effect. These impacts highlight the need for a differentiated view of the activities that emerge in settlements, one that distinguishes between benign and negative practices.

Changes to the houses

A significant proportion of people in RDP settlements have invested heavily in physical changes to their houses. The study by Nell et al. (2011) provides some insight into the changes made to 56 houses situated in three RDP settlements around the country: Slovoville in Soweto, Gauteng; Emaplazini in Inanda, KwaZulu Natal; and, Thembalethu, George, Western Cape. Changes ranged from none/no visible change to '[v]ery big [b]rick built additions; changes to the effect that the RDP house is not recognisable anymore' (Nell et al., 2011: 10). The investigation found that the vast majority (77%–95%) had made visible modifications to their units. Most changes were quite small, such as plastering, painting, building a porch, or installing security measures (e.g. burglar

bars or wire fences). However, 25%–50% of all the households interviewed had made significant changes, including adding a room to the unit using conventional or temporary materials (Nell et al., 2011).

A SIGNIFICANT PROPORTION OF PEOPLE IN RDP SETTLEMENTS HAVE INVESTED HEAVILY IN PHYSICAL CHANGES TO THEIR HOUSES.

Further studies found that owners had made noteworthy changes to their houses, shifting what they found to be inconvenient in the original configuration, or adding a room. Research in Johannesburg (Charlton, 2013) showed internal toilets moved outside the house into the yard (both to create more space within the house and to provide backyard dwellers with access to sanitation), a complete second storey added to a house and internal walls added (in cases where the original houses did not have these room divisions). Other people had made great efforts to improve the finishes of their houses and to personalise the image and look of the house, through plastering the walls, changing the roof from corrugated iron to tiles, changing window and door styles and types, or adding a front veranda.

In doing so, households are able to add aesthetic variety to visually unappealing RDP settlements, which are notorious for the monotony created by large numbers of identical houses. Furthermore, such personalisation shifts the unit from being merely a subsidised living unit to a more genuine expression of the idea of a home. These changes to the units also bring investment into the area, through the use of local tradespeople and

the local purchasing of new and recycled construction materials for finishes. These examples also question the assumption that households rely and depend on the state to deliver a complete house upfront and support the idea of providing a starting framework around which owners' investments are made. It is clear that people have the capacity and means to adapt the house to suit them and, in so doing, show more agency and ingenuity than 'people as beneficiaries' are given credit for.

Changes to households

The third category of transformations moves from a focus on the house and site to that of the occupying household. Some households make significant adjustments and changes to their composition and occupation of the RDP house, including sending household members to live elsewhere in order to access better schooling or to limit daily transport costs of accessing schooling not available in the RDP settlement (Charlton, 2013). Nell et al. (2011) found that in homes with school-going children, some children 'dropped out' because of the cost and distance of schools from the RDP settlements. In the settlements studied, households who did not have space for their children (or because of the distance and cost of transportation), sent their offspring to live with grandparents or other family members or back to original settlements to continue their schooling.

In some cases, the breadwinner may work far from the house and only be in residence at certain times of the week, the month or the year. Importantly, this occurs when the place of work and the RDP house are in the same city, not just in cases of long-distance commuting (Charlton,

2013). By and large, these multiple living arrangements are explained by transport costs and inconvenience, as well as the need to connect with a particular job, income-generating activity, facility or amenity in another part of town to which a daily commute is unworkable. These examples expose the sense that people have complex attachments and deploy various spatial practices to maintain connections with their RDP houses, even if they cannot live in them on a daily basis (Charlton, 2013).

DESPITE PEOPLE'S AGENCY AND INNOVATION, HOUSEHOLDS ALONE CANNOT OVERCOME CERTAIN ISSUES.

These concerns and tactics speak to some of the less positive aspects of the existing settlements. They highlight that, despite people's agency and innovation, households alone cannot overcome certain issues. Arrangements such as those described above have seemingly negative implications for families, including fragmentation of families and of family life. They could also mean that some settlements are relatively 'thinly populated' for much of the time, given the absence of some household members. Houses might be empty for seasons, weeks, or days; not abandoned, but not occupied on a daily basis and contributing to everyday life in an area (Charlton, 2013).

A further aspect of fragmentation that needs more investigation is whether access to the housing benefit encourages unintended family sub-division. On the one hand, the large-scale delivery has reduced the typical

occupational densities (of 8–12 people per house common in 'black townships') to more reasonable sizes, with people more spread out across several houses. However, on the other hand, it can be speculated that the policy has perhaps unintentionally promoted artificial separation into 'sub-households'. These smaller households may reflect a lessening of the familial bonds and networks of social sustainability evident in larger households.

On the positive side, many households use the move to new subsidised houses to re-consolidate households. For instance, new beneficiaries may have more space in their new home to accommodate a nuclear or extended family, and backyard accommodation may house extended family, relatives or friends.

Changes to the neighbourhood

At the neighbourhood scale, most state-subsidised settlements undergo a metamorphosis as they mature. A range of patterns, movements and local economies develop on the basic framework of state investment in spatial planning, land rights, physical infrastructure and houses. These processes occur unevenly between settlements and are influenced by the location of the settlement, the perceptions of residents, further state investment and surrounding development activity.

The planning of settlements includes transport routes, and social, commercial and retail sites, which are often adapted as the 'lived experience' of the neighbourhood builds connections between people and services. New land uses emerge from local demand, and activities concentrate in specific areas. First to develop are

transport-related activities, both formal and informal, that arise from the daily movement of people to work, school and shop (foot and cycle paths, taxi routes and stops), and movement routes to regional transport infrastructure such as bus rapid transit and train infrastructure.

A key difference between a subsidised settlement and a sustainable neighbourhood is the extent to which residents can access basic services and facilities within their neighbourhood. Although zoned commercial, retail and social services sites may remain vacant, and informal retail stores, nodes and strips often develop, at first informally and then over time more formally. Local retail outlets (such as 'spazas') grow, offering basic conveniences and services (e.g. airtime) and providing a critical source of income generation for beneficiary households. In certain areas, competitive advantages arise and activities, such as small-scale manufacturing or multiple hospitality establishments start to consolidate and concentrate. Ultimately, certain 'emerging economy' neighbourhoods see formal shops or retail centres developing, to serve an area beyond the core

neighbourhood (ULM, 2011b). Evolving neighbourhoods also improve through the development of local services, such as daycare, education and training, cultural centres and places of worship, professional and artisan services such as medical practices, salons, bars and restaurants.

The presence of community engagement and political representation is another indicator of a sustainable neighbourhood. Establishing a community 'voice' helps to control the development of illegal or incompatible land uses and to lobby for municipal service delivery, community policing and future public investment in a neighbourhood. A community voice is also important in capturing the essential 'second wave' of public investment into a neighbourhood: investment into new schools, clinics, police stations, multi-purpose centres, public transport facilities and parks and their related services in subsidised housing areas. These facilities and related services help focus a community within its neighbourhood and reduce wasted time and money spent commuting to external services and facilities. They also play a critical role in changing neighbourhood economies by strengthening local economies and 'value capture' around public facilities (ULM, 2012).

Ultimately, a telling indication that a subsidised development has become a more mature neighbourhood is its property market. The buying and selling of properties, the increase in use of, and value of, mortgage finance and asset creation via upward property price trends are critical sustainability indicators of a maturing real estate market post-subsidisation (CityMark, forthcoming). Factors that can strongly influence this market include

the extent of second-wave public investment in the area, the level of maturity of community voice and the diversity of services and amenities available in a neighbourhood.

A concern at the neighbourhood or aggregated level is 'the concentration of the very poor in new ghettoes' through the housing programmes (NPC, 2012), in neighbourhoods typified by high levels of unemployment, a low rates base and criminality. Such concentrations may construct or contribute to attendant social and political ills. In these cases, the ability of communities at the neighbourhood level to leverage public or private investment and to have a powerful enough 'voice' is questionable. In other contexts, residents are often able to 'voice' their needs and get a response if a powerful, often politically connected, professional contingent of residents exists who are able to negotiate with local authorities (Rubin, Todes and Mabin, forthcoming). Furthermore, concentrations of poverty may lead to economies of vice, whereby one of the primary ways in which households can earn an income lies in criminal or 'grey' activities. This is the case in many older areas of concentrated poverty (e.g. the Cape Flats), where highly evolved and mutually reinforcing economic activities of drug dealing, prostitution and other elements of organised crime can predominate the economic lives of residents (Standing, 2003; Wilson, 1987)

What is clear is that the changes depend highly on the context, location, and connectedness of the settlement to other parts of the city, as well as to the ability of the residents to leverage their own 'voice' and negotiate for their needs.

CONCLUSION

Supporting the positive and sanctioning the negative

The above cases provide some insight into the positive and negative changes that take place post-occupancy in state-subsidised settlements. The changes are clear, both in use and in the physical dimensions of the unit, and often complement each other. The positive aspects reflect greater investment in the unit, the transition from a house to a home (and from houses to sustainable neighbourhoods), and the creation of potential income-earning opportunities. Households appear to value their state-subsidised units (Charlton, 2013; Zack and Charlton, 2003) and find creative tactics that allow them to hold onto their houses despite the difficulties of living in them on a day-to-day basis. However, in some cases modifications – in use, the physical structure of the unit and stand and in the life choices of the beneficiaries – have obvious negative consequences, such as disturbing or endangering neighbours through inappropriate land use, over-use of state services and infrastructure to far beyond the design thresholds, and familial and social fragmentation in order to maintain the asset.

These practices are not because beneficiaries are distancing themselves from, rejecting or resisting state ideals, but more typically because people are using state investments as a platform for self-betterment. Improvements, extensions and changes in usage of houses can be seen as evidence of respondents wanting to mould the houses in ways that better suit them, as active, engaged contributors to the state's efforts to improve their lives, not passive recipients (as suggested at times by the state and others). In this way, people's transformations of subsidised houses into homes constitute both a challenge to and an adoption/ adaptation of the vision of the housing programme (Charlton, 2013).

For all four categories of changes, the various government spheres can intervene at various moments, to support what is useful and helpful and to intervene in the worst manifestations of uncontrolled change or unintended consequences. However, before any intervention, the state needs to alter the way it understands and perceives these changes. Local agency and daily practices of innovation should be rewarded, even if they disturb the more modernist visions of human settlements. This requires a general sensitivity towards the changes that are being made, understanding why households are making changes rather than seeing them as criminal, wayward or disobedient.

The first step in supporting positive change is to reconsider the modifications made by households to their homes and settlements. By reframing how these changes are seen, not as unwanted mutations but as private investment leveraging off public capital, they can be viewed as a sign of reasonable satisfaction with the benefits from the state, to which people add their own imprint and essential modifications. The changes should also be seen as a form of asset creation, even if not in the manner envisaged by the state. Originally the state hoped that households would be able to leverage private sector finance, but instead many households are valuing their subsidised houses as platforms for other kinds of

developments, investments and income generation. In other words, households are using the unit as a secure home base, a family asset, a site from which to draw additional income, and a way of investing into their communities and assisting with the provision of housing. While not fully anticipated, the changes are extremely important, and their contribution to household and settlement sustainability should not be under-estimated. Furthermore, they also indicate that state intervention is very important but has limits and that households are able to identify and 'plug' some of the gaps. At the same time the state has a vital role to play in providing social and public amenities and services that must be collectively supported. As demonstrated, the inevitable evolution of settlements happens in a variety of uneven ways, and so the focus needs to be on how to guide and manage these changes, and how to support the positive and mitigate the negative aspects.

At the infrastructural level, the initial planning and servicing for greenfield projects could consider catering for higher densities over time rather than assume a static population. Zoning and land-use schemes could also provide for more flexible options so that application for re-zoning would not be necessary, which would cut down on household expenses and local authority capacity needs in trying to enforce compliance. House design and site layouts could also be developed from the start in the expectation of densification and/or additional activities. In existing settlements, possible levels of density and types of land use, without causing damage or negative impacts, would need to be assessed. Beneficiaries could be allocated sites based on their desire, and propensity, to undertake additional, beneficial activities on site.

Once established, good urban management and control would be needed to ensure these levels are maintained, on a case by case basis. Thus in the case of renting backyard rooms, some basic norms and standards are probably necessary to ensure that overcrowding does not take place but without jeopardising the backyard rental market, which is vital to so many people. In thinly inhabited settlements, affordable and efficient transport would allow even the lowest income earner to access their livelihoods – here the state needs to consider highly subsidised transport that would connect these settlements with the rest of the city.

The chapter argues that significant energy and investment are taking place in state-subsidised housing developments. Much of it seems very positive and contributes to the transition from housing to SHS, through densification, changes in function, efficiency and using houses as platforms for a range of social, economic and personal needs. At the same time, other practices may need to be mitigated, controlled or stopped. This chapter intends to open the debate but recognises that it is based on a handful of studies and cases. To unpack and understand the true nature of post-occupancy activities will require not only the state's perception to change but also more research covering a much wider geographical spread. Given the state's on-going commitment to the subsidised housing programme, the constraints on the fiscus and the increased focus on an active citizenry, now more than ever is it time to enter into this debate, to explore the most appropriate role for the state to play, and to deeply consider how collaborative partnerships can shape subsidised houses into sustainable neighbourhoods in the future.

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YOUTH, HOUSING AND URBAN LOCATION:
ECONOMIC ENTRY FOR THE EXCLUDED POOR

Catherine Cross

INTRODUCTION

THE LARGE URBAN YOUTH GENERATION THREATENS TO BECOME A MASSIVE AND PERHAPS CRIPPLING WELFARE LIABILITY, INSTEAD OF THE ANTICIPATED DEMOGRAPHIC DIVIDEND TO DEVELOPING ECONOMIES (ALTMAN, 2013).

The huge problem of youth unemployment has loomed larger, as economies have failed to recover with strong employment growth after the global economic crisis of 2008/9. In South Africa, youth unemployment may have surpassed 50%,[1] and the jobless youths' increasing anger is changing the political scene, as protest actions proliferate, polling stations are attacked, and radical new parties emerge.

1.   F Cronje, CEO, SA Institute of Race Relations, Letter: NDP not the cure-all, *Financial Mail*, 22 May 2014, www.financialmail.co.za/opinion/letters/2014/05/22/letter-ndp-not-the-cure-all

In South Africa, this crisis is being felt most acutely in the main metros,[2] particularly in the poor settlements where large numbers of unemployed in-migrant youth are trying to enter the economy. Two problems then come together: high youth unemployment and the lack of access to informal housing for rural job seekers. Understanding the spatial dynamics of shelter and housing for the youth constituency is thus critical.

The housing delivery paradigm has changed from 'housing' to 'human settlements' (PMG, 2013), but people move within a city as individuals and households, not as communities. Therefore, the concept of housing delivery should not be lost while moving to a more humanistic, less box-checking approach based on human settlement priorities. City form adapts and changes when people move from one kind of settlement in one kind of location to another in a different location. To tackle youth exclusion when delivering human settlements and investing in infrastructure, city planners must understand where the youth are now and where they going. They must understand what kind of housing or shelter they use on their urban journey. When planning for increased economic access, it is important to work with the functionality of city space as the poor understand and use it.

The main metros have responded with a new policy of transit-oriented development (TOD). The aim is to reduce urban inequality through improving access to the city centre for the poor by means of affordable transport, relieving the pressure of informal settlement on the city periphery and increasing density within the

city. This policy involves very large investments: the City of Johannesburg has allocated R12.9-billion to its comprehensive 'Corridors of Freedom' TOD plans (City of Johannesburg, n.d.).

Led by Johannesburg, the main metros plan to develop transport corridors to bring the poor into the public transport network more fully and at a lower cost. The aim is also to reduce transit times and promote densification by redeveloping urban areas around the transit stations that serve as nodes in the metro TOD systems (Bickford, 2014). However, Bickford (2014) questions whether TOD will be effective in achieving inclusivity in South Africa,

2.   Main metros in this chapter refer to the five biggest metropolitan municipalities among SACN member cities: Johannesburg, Cape Town, Ekhurhuleni, eThekwini and Tshwane. The other municipalities are divided into other metros, secondary cities and other urban centres (i.e. towns).

given that the international TOD model does not include the objective of reducing inequality and has seldom succeeded in limiting urban sprawl overseas.

The main metros are aiming for urban compaction (Todes, 2003) in order to slow expansion and limit their infrastructure costs by promoting greater density in a limited space. South African city planners are committed to this as a priority (SACN, 2011). The metros are therefore instituting city edge delimitations to keep development inside a planning boundary by force of policy. However, this may be difficult to achieve because South African metro city destinations and routes are typically quite widely dispersed (Bertaud, 2008). The diffuse webbing of routes, each carrying fairly low traffic volumes, means that an arterial rapid transit system will struggle to build up the critical mass of users necessary for urban redevelopment investment to concentrate at its nodes, create higher population densities and bring the poor migrant population nearer to the city centre.

This chapter looks at how young migrants who arrive unemployed and without qualifications can make their way into the urban economy. The chapter examines the spatial functionalities of the city and identifies two routes to urban economic participation. It then relates them to the new metro initiatives that aim to provide economic access through TOD. It asks where the youth are located now, and whether the current understanding of urban core zone access and spatial disadvantage is accurately matched to the situation facing poor rural-born migrants and their households, as they try to find a space that will give them entry to the urban economy.

SOUTH AFRICAN METRO CITY DESTINATIONS AND ROUTES ARE TYPICALLY QUITE WIDELY DISPERSED.

Defining and building spatial data

No planning principle is yet in place to establish priorities or to decide where infrastructure should be upgraded or delivered first (Narsoo, 2013). To clarify targeting, data on the outcomes for the household economy is urgently needed.

The data referred to in this chapter is drawn primarily from the Human Sciences Research Council (HSRC) StepSA project databases, both the 2009/10 national survey database of housing in relation to migration and transport (StepSA, n.d.) and the Independent Electoral Commission migration database, 1996–2011 (StepSA, 2013a). The information on labour market dynamics and perceptions is drawn from statistics from the Quarterly Labour Force Survey (StatsSA, 2014), partly from a qualitative background study at Diepsloot (a densely populated settlement in the north of Johannesburg) for the World Bank Township Economies study over 2012/13 (World Bank, 2014), and partly from StepSA's multi-year series of area studies conducted in 2007/8 and 2009/10, in a total of 58 rural and urban African communities in eight provinces. The qualitative data are used in combination with 2001 Census data (StatsSA, n.d.), statistically projected to 2015.[3]

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3.   At the time of writing, the 2011 Census data for migration had not yet been released at the level of detail required for this kind of economic and demographic analysis.

URBAN SPATIAL FUNCTIONALITY AND HUMAN SETTLEMENTS

URBAN PLANNING SEES LOCATION AS THE KEY TO THE HOUSING PROCESS. ALL CITIES PROVIDE FOR DIFFERENT KINDS OF SETTLEMENT AT DIFFERENT POINTS INSIDE AND OUTSIDE THE CITY CORE; ALL THESE SETTLEMENTS HAVE SPECIFIC FUNCTIONALITY.[4]

Different kinds of shelter at different distances from the centre are occupied by different types of households with different livelihood needs: one spot does not fit all.

The functionality of a city zone depends on the household life cycle. Poor people move in and out of an area as their needs change, using various types of location and housing to achieve their goals, particularly to find jobs (Table 2). Perhaps the most important functional distinction is between rental housing, which provides temporary shelter for a younger, unstable population, and owned housing for older, more settled families, who want to stay in their present location and are good candidates for upgrading.

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4.   'Functionality' in this context may be defined as 'the kind of function or spatial utility that a given place provides for a given category of poor people' (StepSA, 2013g).

Where the unemployed youth are located

Table 2 shows the location of unemployed youth for the whole of South Africa, using 2001 Census statistics projected to 2015, arranged according to city sizes and the urban-rural continuum. The highest percentages of youth aged 15 to 24 and young adults aged 25 to 34 are in the metro sector and the former apartheid homelands, the main source area for rural-to-urban migration.

TABLE 2: Where are the unemployed youth? Urban-rural unemployment distribution by settlement hierarchy

Household members	Main metros	Other metros	Secondary cities	Other urban centres	Farms	Tribal authority
Household size	4.50	4.35	4.74	4.57	4.58	**5.68**
No. H/H members aged 20–64	2.54	2.32	2.43	2.43	2.39	2.80
No. aged 15–24	1.00	0.97	1.12	1.03	0.95	**1.31**
No. aged 25–34	**0.87**	0.69	0.70	0.72	0.78	**0.86**
% M aged 15–24 unemployed	**0.34**	0.32	0.27	0.35	0.26	**0.33**
% M aged 25–34 unemployed	**0.36**	0.49	0.46	0.39	0.28	**0.50**
% F aged 15–24 unemployed	0.43	0.35	0.42	0.44	0.43	0.39
% F aged 25–34 unemployed	**0.54**	0.61	0.63	0.66	0.47	0.68

Source: Census 2001 (Stats SA, n.d.)

The highest employment statistics for young working-age adults are also in the main metros. Youth up to age 24 are often still in education or not yet in the labour force, and their unemployment levels do not appear to vary systematically with the spatial hierarchy of city size and location.

MANY RURAL POOR WANT TO JOIN THE URBAN MIDDLE CLASS.

The city's spatial structure: human settlement by distance zones

Rural-urban migration is largely determined by the search for economic advancement. Many rural poor want to join the urban middle class, and they commonly do this by shifting their position in the national space economy. In search of new opportunities, they move into the towns and cities and then move from zone to zone within them.

Table 3 illustrates intra-urban movement and the dynamics of urban space. It is a snapshot of the urban structure across all sizes of cities and towns from the standpoint of poor migrants looking for shelter and economic access, based on StepSA's 2008/2010 survey data (StepSA, 2013b; StepSA, 2013c), using the HSRC's settlement typology and GIS zone delimitation. Each settlement type tends to occupy a specific position in the zone sequence, but these sequences are not the same for smaller and larger urban centres. For instance, the intensely urbanised 0–4 km zone around the main metros' CBDs is different from the 0–4 km zone around small towns, which may include rural land uses. Consequently, the size categories need to be separated for a valid comparison. The table shows that in urban centres of all sizes, the main temporary settlement types tend to be located close to the city core.

TABLE 3: Structure of the urban space economy: demographic distance zones by settlement type (%)

Distribution by columns of major settlement categories, by distance from urban centrepoint

* indicates 1–1.9%, - indicates <1%

Major metros: sequence of distance zones by settlement					
Settlement type	*0–4km*	*4–8km*	*8–20km*	*20–30km*	*30+km*
Old traditional	-	*	*	2	5
All self-development	-	-	-	-	-
All formal townships	*	17	33	38	29
All shack settlements	10	26	15	20	15
All subsidy housing	-	*	*	4	8
All backyard housing	-	3	3	7	7
All non-traditional village	-	11	*	3	-
All rental housing	84	39	41	11	14
Other	6	4	8	15	22
Other metros & secondary cities: sequence of distance zones by settlement					
Settlement type		*0–4km*	*4–8km*	*8–20km*	*20+km*
Old traditional		*	2	5	7
All self-development		-	-	-	-
All formal townships		22	36	40	50
All shack settlements		36	21	25	7
All subsidy housing		-	8	4	7
All backyard housing		5	5	3	5
All non-traditional village		*	3	2	*
All rental housing		35	16	15	4
Other		2	8	5	20
Large & small towns: sequence of distance zones by settlement					
Settlement type			*0–8km*	*8–20km*	*20+km*
Old traditional			7	27	39
All self-development			18	31	37
All formal townships			33	9	4
All shack settlements			13	6	3
All subsidy housing			8	9	3
All backyard housing			5	3	*
All non-traditional village			-	11	6
All rental housing			*	2	7
Other			8	2	*

Source: StepSA, 2013c

Table 3 provides the framework for the following spatial analysis. Three basic size categories (major metros, other metros and secondary cities, and towns) roughly represent South Africa's overall urban hierarchy and structure the options for movement into and within cities and towns. The table reflects the kind of accommodation that young people arriving in the urban sector can access at various distances from the city centre.[5] Affordability increases going outward from the centre.

Despite differences between the three categories, each category shows a similar numerical central tendency in the distribution of the main settlement types. The zone structure shows the distribution for rentals compared with owned housing types. In the major metros, the inner-city zones consist almost entirely of rental accommodation. These are temporary occupation types with rapid turnover, responding to pressure on space and high occupational mobility. This inner rental zone disappears completely from the other metros and secondary cities, where the other zones move inward to take up the space at the core.

Long-term owned housing types (green-shaded boxes) dominate the outermost zones of the major metros, from 20 km outward, and the 4–20 km zone of the other metros and secondary cities. These settlements are mainly stable residential communities, consisting of the old townships, smaller shares of relatively stable shack communities and a modest rental element.

Formal townships tend to be located in the middle city and on the outer edge of major metros, and are found closer to or in the core zones of the other metros and secondary cities. Shacks are found in all distance zones for the major metros but cluster in the core zones of the other metros and secondary cities. Rental accommodation, apart from backyard structures, is strongly linked to core zones in the major metros and almost disappears from the large and small towns. As the alternative form of short-term and temporary housing, rentals tend to follow the distribution of the shack areas. However, rentals are more tightly associated with the central city zones, and are much more expensive on average.

SHACKS ARE FOUND IN ALL DISTANCE ZONES FOR THE MAJOR METROS BUT CLUSTER IN THE CORE ZONES OF THE OTHER METROS AND SECONDARY CITIES.

Assessing functionality through reasons to move: the search for jobs and houses

The urban labour markets structure the informal city at its centre, but housing search and aspirations structure it in the outer zones. Excluded from the city's high-priced spaces, rural-born migrants often use shack settlements as the best available point of urban access, weighing up the high costs of travel to reach jobs and amenities, in terms of time and money, against the affordability of outlying accommodation. In addition, backyard rental is an expanding category (Harrison and Todes, 2013) accessible to better-off migrants.

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5.   Centre located by GIS in the CBD.

Table 4 shows the first reasons offered by a large sample of survey respondents for moving to their current place of abode. Looking at their specific combinations of location and settlement type, the two main motives are: *finding work*, followed by *finding suitable housing*. The job search motive is strongly associated with the central city zones and with rental housing, but is also strong on the periphery. The house search motive is found primarily in the outer zones and ranks as the second main reason for moving.

FOR THE MIGRANT POOR, THE NEED FOR HOUSING IS THE PRIMARY REASON FOR MOVING.

Job search appears to be the key reason for choosing rental and the temporary housing options. It is the reason for moving given by 47% of respondents in the urban private rental category, which consists mainly of young urban professionals moving into the city core zones. It is also the reason given by 38% of respondents in informal urban rentals and by 33% of respondents in backyard rentals, the last temporary housing category. The job search motive is also strong in the shack settlements at various distances from the city centre. It is the reason given for moving by 41% of shack dwellers in the inner core zone, 38% in the outer core zone and 25% in the middle city. On the outermost fringes of the city periphery, it is the reason given by 34% and 27% of shack dwellers.

The house search motive appears less spatially focused, but a pattern emerges. Those who give this reason for moving tend to concentrate on the city periphery and extend into the rural fringe zone around the outer city limits. Housing-related reasons for moving are less common in the central city zones, which are dominated by rental housing. For the migrant poor, the need for housing is the primary reason for moving. The housing-related motive is highest in the self-upgrade category (26%), where families use low-cost land on the city edge as a means to build their own decent-quality housing, followed by the outer periphery shack area, just inside the approximate city edge (22%). Unsurprisingly, for the informal settlements, the most common first reason for moving is simply to find a house.

Other reasons given for choice of location and settlement type, such as to leave a difficult household situation or to be with family, are much less common. Education as a first reason to move reaches 15% only in the elite category of urban private rentals.

TABLE 4: Settlement functionality: first reason to move, leaving previous place of residence (%)

(StepSA national survey sample, African-majority enumerator areas, urban and rural 2008/2010, N= 5912)

	OLD TRD	SELF-UPGR	INNER VLLG	MID-ZONE VLLG	OUTR VLLG	SHACK SETTLEMENTS					MIX F/INF	RDP HSG	BACK-YARDS	UPGR INFML	OLD TSHIP	URBN PVT RENT	INFML RENT
						0–4 km	4–8 km	8–20 km	20–30 km	30+ km							
Job search/no work there	5	8	6	8	12	41	38	25	34	27	6	12	33	25	14	47	38
Be closer to work	2	8	3	4	5	2	14	5	7	5	15	10	8	10	8	9	18
Lost job/employment	3	3	2	1	2	--	4	1	1	5	--	1	2	2	1	--	--
Get own house	17	26	17	20	15	16	11	17	17	22	17	20	11	17	17	3	--
Get better house or site	2	6	4	2	4	2	1	4	2	8	--	4	3	3	3	--	--
Be closer to schools	1	1	--	< 1	< 1	--	--	--	< 1	--	--	< 1	1	< 1	1	15	3
Find better schools	1	< 1	--	1	< 1	2	2	2	2	--	2	2	1	< 1	1	--	--
Be closer to health care	< 1	< 1	--	--	< 1	--	1	--	1	--	--	< 1	--	1	--	--	--
Find better health care	--	--	--	--	--	--	--	< 1	--	--	2	--	< 1	--	--	--	--
Join family or partner	12	5	2	4	6	8	5	6	5	5	2	4	8	5	4	--	5
Difficult h/h situation	7	9	3	5	8	< 1	4	3	8	16	8	12	7	10	10	3	3
Find easier/better life	5	9	28	11	8	10	6	6	10	3	6	9	6	11	11	15	15
Other	9	5	4	1	7	8	4	4	3	5	14	5	2	6	9	3	6
N/A, never moved	6	9	20	32	11	--	--	--	< 1	3	--	4	3	--	5	--	5
Don't know/can't answer	23	3	4	5	13	--	1	4	3	--	17	5	5	2	8	--	5

Source: StepSA survey, 2008/2010 (see StepSA, 2013b)

CITY STRUCTURE AND THE URBAN MOVEMENT CYCLE

RENTAL ACCOMMODATION IS COMMONLY THE FIRST CHOICE FOR SINGLE YOUTH LEAVING HOME AND NEEDING A BASE FROM WHICH TO ENGAGE IN THE LABOUR MARKET.

These job seekers tend to move inward, to temporary accommodation in or near the metro core rental zones, in order to exploit the central labour market as the most concentrated source of work in the city. When they begin to set up permanent households with children, the new family units tend to move outward again, in search of affordable, permanent, owned housing in the outer zones. As stated earlier, people move through the city's informal spatial system looking for shelter as households or individuals, not as communities or entire settlements. Using qualitative data from the Diepsloot study (World Bank, 2014), this section describes how young migrants move around in the city, as they mature into their family stage, and to what extent they succeed in achieving their locational and economic goals.

Job search paths

Many migrants come to the Gauteng city region directly from their rural point of origin, usually in the old apartheid 'homelands'. They often arrive in the most familiar parts of the cities, where many have network contacts, and may stay temporarily with employed relatives while searching.

Two common job search paths appear in the Diepsloot study findings. Most rural migrants entering the urban sector start with planned search strategies in the labour market. If this initial search succeeds, they may move up to township-quality housing and become part of the urban middle class (StepSA, 2013d).

Path Set 1 depends on finding a temporary search base in the middle-city or core zone, where the job seeker can conduct a low-cost search on foot inside the developed city. Some respondents in the study started from Alexandra township, the innermost township available to the migrant poor and a common starting point for the northern middle city. Others used contacts in the Mamelodi hostels on the Tshwane periphery and planned for fairly short-term searches deeper into the inner city zones.

The study shows that Gauteng searches in the developed city often concentrate on the northern Sandton/Marlboro commercial sub-region of Johannesburg, where business re-located to in the 1970s (Garner, 2011), and which is accessible from Alexandra as a point of entry. It remains to be seen how far the improved core access provided by the Corridors of Freedom Bus Rapid Transit (BRT) system will make job search affordable to the unemployed migrant poor. The planned BRT route recognises the importance of Alexandra for job searches and may restore some of the access lost in the redevelopment and removals under the Alexandra Renewal Project in the early 2000s.

Path Set 2 involves Diepsloot itself. This is a well-known beacon destination at the rapidly merging peripheries of Johannesburg and Tshwane. It is also marked by its function for the city as a removals area. Job search from Diepsloot is concentrated within a roughly circular zone, with a radius of approximately 10 km, taking in Randburg, Fourways, Halfway House, Midrand and the Kya Sands factories, and sometimes reaching Sandton. Job opportunities surround Diepsloot but are not within

walking distance. Therefore, the search area is cost-defined, restricted by the cost of taxi fare, as taxis are the only available form of public transport. At the time of writing, fares for single taxi trips were reported to be about R11 to Randburg and Halfway House, R15 to Rosebank and R30 to the city core zone. Job competition is acute, success rates are low, and respondents could not continue for long to pay for searching by taxi.

Serial temporary work

The Diepsloot study findings show that when a first job search is unsuccessful, a job seeker on the edge of the labour market may resort to unregistered serial temporary work as a default option (World Bank, 2014). The Quarterly Labour Force Survey shows that the temporary low-skilled basic occupations that are most available to less qualified rural migrants represent about 40% of the national labour market (StatsSA, 2014; Cross and Ngandu, in press). This kind of work is a source of household support in most male-headed households and in about half of the female-headed households, and at Diepsloot the qualitative survey found that temporary work was significantly more common than permanent employment (World Bank, 2014).

Those who seek serial temporary work use the city space somewhat differently from those looking for permanent employment. To obtain temporary work, a job seeker usually needs to live close to where the work is located if the low level short-term pay is to be viable. Since the returns are low, sporadic and uncertain, people are less likely to move to be close to a temporary work option than to a permanent job.

Selecting locations

As the above shows, the metro informal areas are split according to their economic functions, so that the closer in to the CBD, the more the shack areas function almost exclusively for job search. This centre-periphery relation underpins the urban movement cycle.

The StepSA/CSIR/HSRC Integrated Planning, Development and Modelling (IPDM) project findings show that the relatively few central zone shacks are used by a mainly male and single, work-seeking youth constituency (StepSA, 2013e). This population group will tolerate living on a temporary basis in these harsh, often unhealthy conditions to avoid spending low and insecure wages on accommodation. They expect to be able to move to permanent shelter within a few months or years.

To avoid deterring investors, the main metros have tried to push back the disorderly conditions that maximise affordability for poor youth in the city centres, by urban beautification combined with redevelopment schemes based on social housing (Garner, 2011). These developments use rental principles that tend in practice to bring the working poor into redeveloped buildings to replace the unemployed, who lack steady incomes to pay for regular rents and therefore are not usually eligible for social housing (see Kitchin and Ovens, 2008). The cities are thus investing heavily in upgrading their core zones in ways that will tend to restrict residential access by work-seeking poor migrants, while also investing in BRT-based TOD schemes that are expected to make temporary, day-visit access much easier and cheaper for poor migrant households.

The conflict between the control of metro urban space and the right of the poor to the city (Huchzermeyer, 2013) may perhaps be resolved by improving commuting access for poor job seekers rather than by increasing residential presence. To date, attempts to release state land for inner-city subsidy housing developments have met with little success. At the same time that Johannesburg has announced its R12.9-billion budget for its Corridors of Freedom BRT planning, the City of Cape Town is arguing that low-income housing will be better delivered outside rather than inside the CBD.[6]

Given the importance to the main metros of promoting maximum business activity to support job creation, and the powerful priority of urban integration, a commuting solution may prove relatively equitable and effective if the challenges raised by Bertaud (2008) and Bickford (2014) can be addressed. At the same time, with funds heavily committed, the question of what kind of investment will help the arriving rural-to-urban migrants remains unanswered.

Functionality as a decision factor

It is not clear to what extent the arriving poor will be able to move into backyard rental accommodation, rather than into owned shacks that have lower recurrent costs. The better-resourced component of rural-to-urban migrants will probably be accommodated in backyards, while the lower-resourced and less-connected component will attempt to find space in existing shack areas.

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6.   B Phakathi, Low-cost CBD housing need in Cape Town, *Business Day*, 28 May 2014, www.bdlive.co.za/national/2014/05/28/low-cost-cbd-housing-need-in-cape-town

Once children are of school-going age, parents want to build or buy their own house. Rural-born families in particular seem to prefer not to raise children in rentals, which are inherently insecure and also imply a subordinate status. In the Diepsloot study (World Bank, 2014; see also StepSA, 2013f), 'Lily M' spoke of how her family escaped from tenant status by obtaining a house at Diepsloot, and in shack interviews in Swedenville, 'Prisca M' described how her settlement was largely populated by women leaving backyard rentals, 'coming with their children to find a place of their own' (Altman and Cross, 2010). The rural value system associates the formation of a new nuclear family with achieving social independence and full adult citizenship status by obtaining the right to build in a community, followed by the establishment of an independently owned residential unit (Cross, 1992).

At this point the youth migrant reaches a fork in the path. The new household will decide to move either into the formal city or (more likely) to an informal area. No longer paying rent, the new household will build a house and accumulate assets. If the head has succeeded in finding an adequate permanent job, the family may move into the formal property market of the townships. If the head has only an unskilled basic job or no regular job, and cannot immediately expect to receive subsidy housing, the family will look for an acceptable shack area that is settled and permanent, or an upgrading area that has infrastructure and services. Otherwise, they may join a land invasion and gamble on being upgraded rather than forcibly removed.

City investment responses

Against this background, Johannesburg's MMC for Housing, Dan Bovu, has noted that the city's three-year budget provides for full upgrading of 60 out of 180 informal settlements, with the rest in the planning stages.[7] Steep new rates have been announced to cover the massive spending involved in the total infrastructure package planned for the next three years. With pressure reportedly being brought to bear to prevent the emergence of new shack settlements, it is not yet clear whether the City of Johannesburg anticipates shack eradication in total, or what it intends in respect of continuing urbanisation.

The HSRC's research in upgraded areas highlights the way the upgrading process can lift poor rural-born families into the middle class through their capacity to construct their own good quality houses on serviced stands (StepSA, 2013g; Cross and Ngandu, forthcoming). However, once a former shack area starts its upward path to full township status and house values rise past R150,000, shack-level units appear to become unacceptable in the community, effectively closing off these upwardly mobile areas to further poor rural in-migration.

If this is the case, then either new shack areas (or equivalent areas delimited for site and service delivery) may be needed on a large scale to deal with continuing urban migration. Additional spending on infrastructure could then be required. With urban integration plans moving ahead and budgets under stress, the main metros may have to keep making new policy decisions about the type and location of infrastructure, in order to bring poor rural arrivals into full economic participation.

7.   S Tau, Settlement upgrades are Jozi's top priority, *The Citizen*, 28 May 2014, http://citizen.co.za/185702/st-city-prioritises-informal-settlements-in-johannesburg-2/

CENTRE OR PERIPHERY? CORE ZONE DYNAMICS

CITY COMPACTION IS HARD TO INITIATE, EXPENSIVE TO ACTUALISE, AND DOUBTFULLY SUSTAINABLE IN TERMS OF 'HUMAN SETTLEMENTS' RATHER THAN JUST 'HOUSING'.

Table 3 shows that very few subsidy housing units are located in the middle city zones, and virtually none in the city centre. The numbers of places available in redeveloped social housing units have also remained small (PDG, 2011), and most core-zone rentals are priced at levels inaccessible to the poor. However, current TOD investment planning may be targeted at promoting greater density in the middle-city zones as much as at the city core zone. This section offers some background to considerations of density and city form.

To increase density, the main metros have tried to enforce an urban edge to prevent further outward expansion. However, the Shlomo Angel planning research group at New York University, the NYU Stern Urbanisation Project, argues that in developing countries with high migration rates, maintaining an urban edge is nearly impossible and

attempting to do so is likely to cause development to jump the administrative barrier and continue in an unplanned fashion outward from the city's proclaimed limit (Angel et al., 2011). In addition, enforcing an urban edge chokes the supply of land and forces land prices to rise, with exclusionary outcomes. The NYU group advises allowing developing cities room to grow, while maintaining an orderly grid structure with numerous transport corridors for urban integration. In this light, the Johannesburg Corridors of Freedom initiative seems a practical attempt at accommodating conflicting planning principles.

Periphery zones often represent the active growth front of the city, with business and construction going on where land is cheaper and still uncongested (Angel et al., 2011). Jobs in construction, security and domestic work are particularly associated with the periphery zone, and these are the categories of work most available for less-qualified rural-born young migrants. In interviews and focus groups, youth at Diepsloot argued that, as in-migrants with limited education and qualifications, they cannot compete for the kinds of jobs that are available in the city core zone, which more often go to township youth and foreign-born migrants who have greater resources and better contacts (Cross and Ngandu, in press).

The economic attraction of the periphery is in uneasy tension with that of the core zone. But because of the higher density and land prices in the core zone, which is often expensive and congested and partly resistant to further development, economic activity tends to be attracted more to the periphery, with its relatively cheap and accessible land. This raises the possibility that the youth and the poor are not necessarily being kept out of the central city

because of the legacy of apartheid planning, but rather because of the exclusionary forces of the national macro-economy. Setting aside these forces may not be easy.

Core versus periphery: income, employment and migration spatial gradients

StepSA's findings (StepSA, 2013g) show city zone structure displaying regularity based on distance to the metro centre, with the key indicators for each distance zone lining up and forming a gradient from the centre to the periphery, in direct proportion to the strength of the city economy. The underlying structure for all the South African cities together can be seen in the IEM gradients shown in Figure 7. Although the underlying principles of spatial zone structure are the same, the main metros' actual zone structures differ according to the differing strength and content of their economies.

Looking at metro urban spatial structure from the point of view of the disadvantaged poor population, household income is probably the single key indicator to monitoring how inclusive is the city. Measured as per capita income, this factor serves as the lead indicator for the spatial gradients shown in Figures 8 to 14, based on 2001 Census data projected to 2015.[8] These gradients also include estimates of unemployment rates assessed at household level, and of in-migration rates as of the last inter-Census interval up to 2001 projected forward.

Taking a high-level view of the centre/periphery issues involved in deciding how to invest in human settlements to bring maximum benefit to excluded households, STEPSA's work with the employment/income/migration

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8.   Figures 7 to 14 are still under development and serve here as illustration only, requiring Census 2011 data to be released at the necessary close level for results to be finalised.

gradients for the shack population reveals large differences between South Africa's cities. The findings point to where, in centre/periphery terms, investment in poor human settlements may best be made for each city.

In South Africa's large cities today, the core zone still exerts a stronger pull than the periphery. However, with the national economy in a fragile condition, the core attraction could weaken, while that of the periphery increases. Averaging together the gradients for the urban sector as a whole, for municipalities of all sizes, the informal settlements exhibit a weak periphery-dominated spatial system (see Figure 7). However, this finding cannot be analysed in detail because of the distortions introduced by overlaying the distance zones for cities of various sizes .

Even in the main metros, economic outcomes at household level are not always best in the core zone. In many South African cities, the best outcomes for poor households are found in the outer periphery zones. Three of the main metros (Ekurhuleni, Tshwane and eThekwini, Figures 8 to 10) show the expected gradient for the informal shack population, where household per capita income peaks at the core. However, this is not true for all South Africa's metros.

Under the influence of this kind of urban sorting force, the income, employment and migration poverty indicators realign as the quest for employment and related livelihoods, together with affordable housing, pulls more work-seeking migrants towards the outer city zones. The shack settlements are the most affected, as their populations have little foothold in the formal core-zone labour markets, followed by the backyard units, and lastly the old townships, whose residents benefit most from access to the metro core economy.

Ekurhuleni (Figure 8) shows a near-perfect gradient: employment, income and migration all co-vary tightly, with all the indicators peaking in the core, and then show a linear decline going outward. The gradients for Tshwane and eThekwini are less marked, although those for Tshwane are linear and fairly steep. eThekwini, a relatively weak metro in terms of its economic pull and core-zone attraction, shows an almost flat gradient once outside its core zone. Here the shack population is very small, so shack-settlement incomes do not vary systematically with distance. This is an unusual finding for a large metro.

Compared with the three largest metros (Cape Town, Nelson Mandela Bay, Buffalo City and Johannesburg, Figures 11 to 14), the gradients of the other metros show a dominant periphery. As Nelson Mandela Bay and Buffalo City are geographically smaller, their functional outer zone is at 20 to 30 km, rather than at over 30 km.

The Johannesburg gradients show both the core zone and the outer periphery exerting a measurable pull on the indicators. High inner-core income and employment with high in-migration then decline steeply in the outer core, whereas unemployment shoots up and migration drops sharply. By contrast, Johannesburg's outer core zone exhibits massive in-migration, exceeding the zone's absorption capacity and suggesting that the labour market in this zone may be saturated. From this point outward to the periphery, all the indicators rise instead of falling – that is, the spatial gradient reverses.

Figure 7: South Africa's national gradient (all SA municipalities informal settlements averaged together)
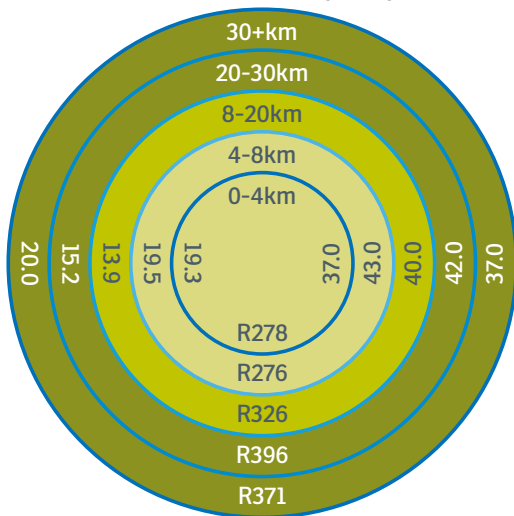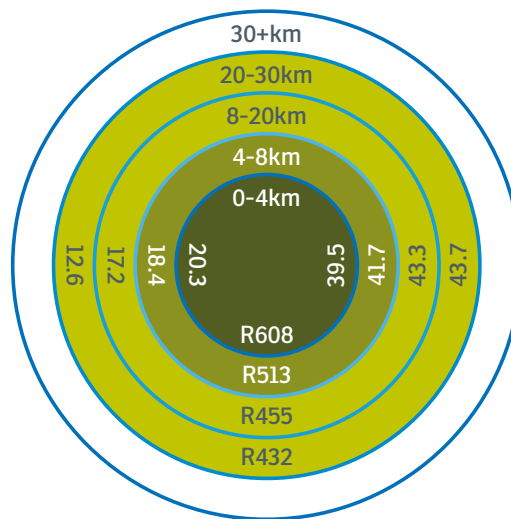

Figure 8: Ekurhuleni spatial gradient
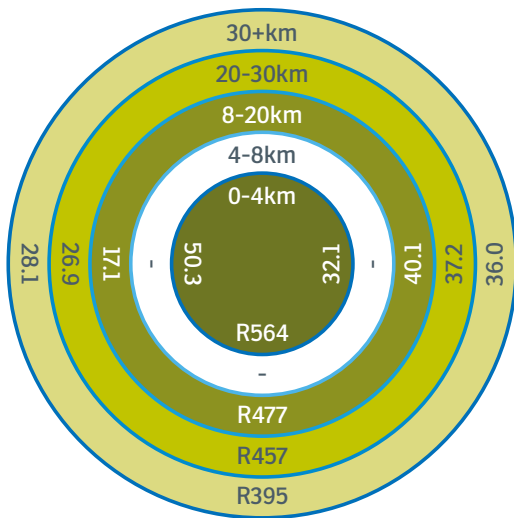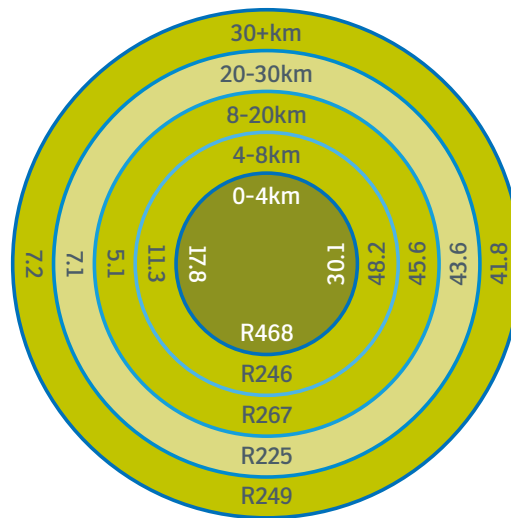

Figure 9: Tshwane spatial gradient

Figure 10: eThekwini spatial gradients

Source: StepSA, 2013g

Dark green shows zone of highest per capita income for shack residents

Left axis: in-migration rates	**Upper vertical axis:** distances from centre
Right axis: unemployment rates	**Lower vertical axis:** per capita income

Figure 11: Cape Town spatial gradient

30+km
20-30km
8-20km
4-8km
0-4km

26.5 18.2 19.4 - - - - 47.3 46.6 46.4

-

-

R374
R321
R548

Figure 12: Nelson Mandela Bay spatial gradient

30+km
20-30km
8-20km
4-8km
0-4km

9 11 9 9 12 37 45 49 45 49

R360
R268
R250
R340
R123
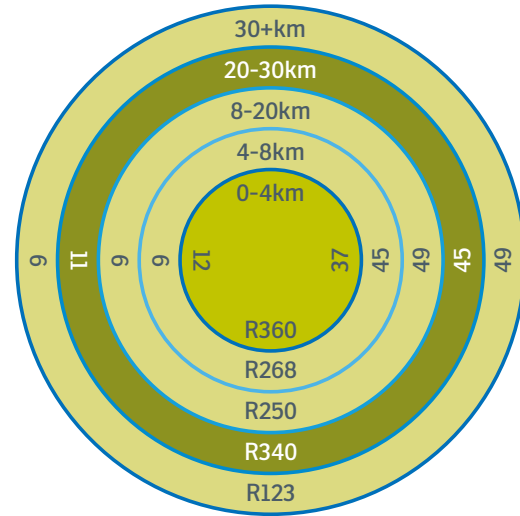
Figure 13: Buffalo City spatial gradient

30+km
20-30km
8-20km
4-8km
0-4km

5.7 6.1 5.6 8.1 6.1 54.5 50.4 47.3 45.4 50.0

R175
R250
R267
R407
R263
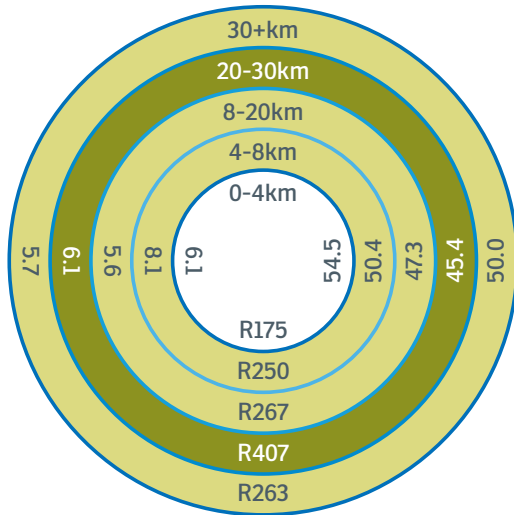
Figure 14: Johannesburg spatial gradient
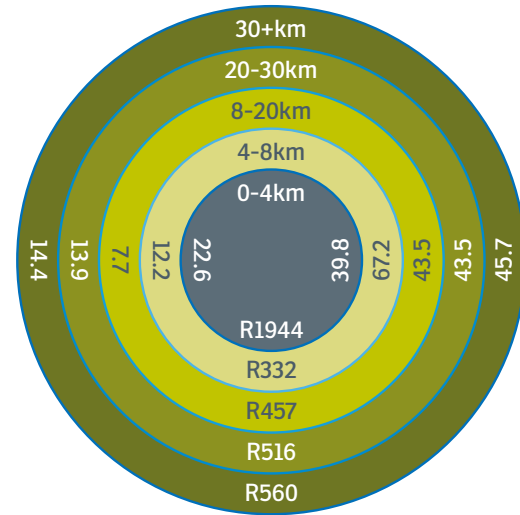
30+km
20-30km
8-20km
4-8km
0-4km

14.4 13.9 7.7 12.2 22.6 39.8 67.2 43.5 43.5 45.7

R1944
R332
R457
R516
R560

Source: StepSA, 2013g

Dark green shows zone of highest per capita income for shack residents

Left axis: in-migration rates
Right axis: unemployment rates

Upper vertical axis: distances from centre
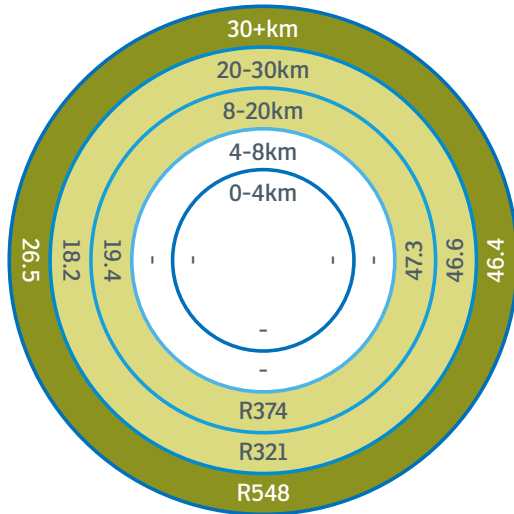**Lower vertical axis:** per capita income

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FUNDING FRAMEWORK   PLANNING   SETTLEMENTS   INTERVENTION   URBAN LOCATION   MANAGEMENT   PARTICIPATION

FRAMEWORK   MANDATE   ANALYSIS

Implications for metro investment

The gradients shown for Johannesburg suggest a tension between core and periphery for the informal population. Household outcomes look strong at the core, but from there outward the periphery zone exerts a pull on the indicators, and they line up the other way, reaching a second peak at the outer zone at R560. Cape Town and Nelson Mandela Bay also show a bi-directional distribution. Cape Town's shack incomes for the innermost zone are at R374, dropping to R321 before rising again to R545 in the outermost peripheral zone. Nelson Mandela Bay's highest incomes are in the inner periphery and second highest at the core zone. The smallest metro, Buffalo City, shows a strong, consistent pull to the periphery. Shack incomes at its core are lower than in most rural districts of the Eastern Cape. This makes it inadvisable to consider putting low-income housing into the city's central zone until labour absorption improves. At the same time, this city's inner periphery estimated incomes exceed R400, suggesting good possibilities for investment in human settlements near the city edge.

On the national spatial gradient (Figure 7), the periphery dominates, as noted above. Income, employment and migration all peak at the edge. It would appear that, for South Africa as a whole, the informal poor should be attracted towards the urban edge in most municipalities, although the powerful economies of the largest metros may retain their centre-driven spatial systems even in today's unfavourable economic conditions.

The main implication of the spatial gradients shown here, on the evidence of per capita incomes, is that investment for the poor needs to be aimed at different zones in each city. Investment intended to integrate urbanising young rural migrants should not necessarily be aimed at the same zones in Johannesburg and Buffalo City, since the findings for these cities are so different, with prospects being good for job seekers at the core of the former and poor at the core of the latter. However, Johannesburg offers alternative prospects on its outer periphery, where its informal population is concentrated and where investment might be easier to actualise; the same holds for Buffalo City on a smaller scale. When identifying local sites for investment, existing plans and local planning knowledge need to take into account the shack population's earning potential according to each city structure, as shown in the spatial gradient figures.

Nelson Mandela Bay would probably offer the best returns to migration-related settlement and infrastructure investment in its inner periphery zone, where its automotive industry is located. For eThekwini, on the other hand, the gradients look relatively flat and do not imply a stronger spatial payoff for any one specific distance zone until conditions change. For Cape Town, the outermost zone, where high-value agriculture comes close to the city, would be likely to offer the best returns to migration-related infrastructure, and investment here might also relieve the city planners' anxieties about their city core zone.

For Tshwane and Ekurhuleni, the gradients suggest that the maximum payoffs to investment and densification would be in the core zones. This spatial distribution may be easier to address for Ekurhuleni, where there is no one single CBD and the migration centre-point is GIS-derived but still represents a substantial population, than in Tshwane, where the city core zone is heavily built

up and the core shack population is nearly zero. In such a centre-driven city, developmental investment in the middle city zone might also be considered if people can be drawn in closer at a higher density.

THE URBAN MOVEMENT CYCLE AND SUBSIDY HOUSING LOCATION

The above discussion suggests that efforts to enforce compaction principles for the rural-born poor may go against the grain of urban economic structuring and against the normal urban movement cycle, which sees poor youth moving inward in significant numbers at an early point in their working lives, before later moving outward again to the more affordable conditions and family housing on the city peripheries. In addition, attempting to place housing in high-density areas may not recognise the capability of the in-migrant poor themselves, who are having considerable success with owner-built good quality housing under lower-density conditions, and would be unable to do this in fully formal built-up areas.

The widespread conviction that, since 1994, subsidy housing has been delivered mostly in inappropriate locations should be reconsidered. For Cape Town, eThekwini, Nelson Mandela Bay, Buffalo City and probably Johannesburg, subsidy housing located at the city periphery seems to coincide with the intended recipient population's highest levels of per capita income. It is only in Tshwane and Ekurhuleni that a potential mismatch can be seen between income levels and subsidy housing

location, if houses are delivered at the most practical location on the outside of the city. For these two cities particularly, BRT-based urban integration investment may be a good strategic option.

The key factor in planning for better household outcomes is to help the excluded poor to succeed in their own efforts to enter the economy. This can be done by enabling and supporting the household's life cycle of urban movement. The 'one-migrant-one-move-once' model of city planning, which prioritises spatial stabilisation, does not take into account the changing needs of migrant youths and the pressure of a growing household that will oblige them to move on. Nor does it acknowledge the importance of the housing market as a vehicle for population movement, or the household's active response as a key element in the total configuration of the urban economy.

SUMMARY AND CONCLUSION

To provide some background to city decisions for targeting infrastructure investment, this chapter looked at how rural-born youth enter the city economy, how they move and how they use spatial functionality in their job search, and with what outcomes. Where to invest is fundamentally connected to determining what zones of the city offer rural in-migrants the best chance of realising a decent income. To help them achieve their goals of economic security and middle-class standing, city planning must take into account the human dynamics of change at city level, in the current context of very high unemployment.

The cities need to understand the spatial strategies that youth in-migrants use as they tackle the urban economy and, subsequently, as they form their own households and settle in the urban sector to establish family life inside the city. Young migrants will continue to come to the main metros because here they find the best available chances for work in the present low-employment economy.

However, it is statistically obvious that not all these young people will find jobs. The effects of the weak metro and national labour markets on city spatial structure must be considered when targeting investments. The functionality of urban space for entering migrants, as regards their chance of earning enough to live on, must be the central consideration when deciding where and in which housing types they will need to be accommodated.

Assisting youth with job search

The findings of various studies referred to in this chapter suggest that the best-prepared job seekers are likely to concentrate first on the inner and middle city zones and then shift to the periphery if they fail to find work. If permanent employment continues to elude them, their default option is serial temporary work, which has different spatial and transport requirements from permanent employment.

To maximise their search chances, the first need for poor youth is access to a middle-city base where they can live informally, in order to try for permanent work at the lowest cost by searching on foot in areas of high job density. Transport investment is thus important to help them at this stage. If this first phase of search does not succeed, their next need is affordable access to the periphery, for a more widely dispersed search. This kind of search is based in informal areas and also requires affordable transport. Recognition of informal settlements and investment in local road networks serving them will thus be the way to help them (Venter and Cross, 2011), as well as investment in wide-scale urban integration infrastructure.

If the first route into the economy through the labour market fails entirely for large numbers of these job seekers, then investment on the urban peripheries will be needed, to open up the alternate, property-based route into economic participation. This will involve upgrading shack settlements, with owner-builder collaboration, which will then serve as a base for tenant rentals and business options. Investment will need to be made in upgrading, and site and service areas will need to be designated,

along with affordable transport connections to integrate these upgraded settlements into the wider city.

Identifying a good location

Well-located land will broadly follow the NYU Stern Urbanisation Project (Angel et al., 2011) formula and will, in most cases, mean continuing to provide land for new informal occupation on the peripheries. Upgrading projects will then enable these areas to shift up to middle-class status. As this process continues, space will need to be identified incrementally for further informal shack-level occupation by the incoming migration stream, so that new settlements can continue to be upgraded in an orderly, planned progression.

One functional characteristic of the outer city zone is to concentrate and generate lower-skilled jobs open to rural youth. This kind of economic activity largely sustains the informal serial temporary labour market which, although inequitable, unreliable and often illegal, does help to support a large share of the poorest households. By contrast, the core zone offers higher-value employment and its lower-skilled jobs may often be taken by higher-qualified candidates.

The question of where to target investment to help arriving migrants will be determined by each metro's particular spatial structure. No two South African metros are alike. Although on average their highest per capita incomes of the poor are for shack populations at the periphery and for township populations at the core, this is not true for every individual metro. Top-down national plans regarding densification and the core/periphery issue

should therefore not be the first concern when targeting infrastructure investment and planning TOD. City planners should rather look at the distribution of economic activity in their own city, in order to frame planning decisions that will give poor in-migrant households economic access in the best way possible for the city.

Making assumptions about housing types

Planning to locate settlements on the periphery of a city has implications for the kind of housing that can be provided. Backyard accommodation is increasing and, although providing access to the city, is obviously not a universal or satisfactory solution for the in-migrating rural poor. Like social housing, backyards serve the middle and upper streams of in-migrants and the better-resourced township youth. Young migrants arriving without resources continue to move into owned shacks and very low-level informal central rentals, as these are the housing types with the lowest recurrent costs.

Rental housing options are not interchangeable with permanent family housing. Although backyards partly bridge the gap, neither the shelter mode nor the spatial areas can be substituted. In the metros, where massive investments are being made, it is risky to assume that rentals and family housing can be interchanged when it comes to financing decisions.

City planners need to think further about what urban integration means on the ground. They must ask the vital question about where best to locate infrastructure to target the arriving rural migration stream. Use must be made of the informal settlements inside the city edge,

rather than seeing upgrading as a means to eliminate them. As the SACN has argued in its *Informal City Reader* (2013), the poor need to come into the cities. To help them do this successfully, city planners must not predict investment outcomes on the basis of first principles or preconceptions, but rather make infrastructure and investment decisions on the basis of a real understanding of the city's functional structure.

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THE ROLE OF LAND MANAGEMENT
IN SHAPING (OR PREVENTING) THE CREATION
OF SUSTAINABLE HUMAN SETTLEMENTS

Stuart Paul Denoon-Stevens

INTRODUCTION

THE SPATIALLY DISTORTED NATURE OF HUMAN SETTLEMENTS IS ONE OF THE PRIMARY CHALLENGES FACING SOUTH AFRICA.

Poorly located and inadequate infrastructure limits social inclusion and swift economic growth, while spatial challenges continue to marginalise the poor (NPC, 2011). In response to this challenge, the National Development Plan (NPC, 2012: 47) argues that:

By 2030, a larger proportion of the population should live closer to places of work, and the transport they use to commute should be safe, reliable and energy efficient. This requires:

- Strong measures to prevent further development of housing in marginal places
- Increased urban densities to support public transport and reduce sprawl
- More reliable and affordable public transport and better coordination between various modes of transport

- Incentives and programmes to shift jobs and investments towards the dense townships on the urban edge
- Focused partnerships with the private sector to bridge the housing gap market.

Land management can help redistribute land within cities and enhance household mobility (in terms of the housing ladder). Therefore, to create sustainable human settlements (SHS), the role of state land – and determining the highest and best use of that land for the wider public good – needs to be one of the key drivers of forward planning, land-use management and property disposal/acquisition.

This chapter explores how the introduction of the Spatial Planning and Land Use Management Act (SPLUMA) provides an opportunity to re-look at the practice of land management and asks the following core questions:

- What is land management, and why is it important to consider it within the context of SHS?
- What is the state of land and housing in the South African Cities Network (SACN) member cities, and what are the reasons for this situation?
- Do opportunities exist to re-look at how land management is practised?
- What recommendations can be made to improve the practice of land management in SACN cities?

This chapter is not an exhaustive summary of all issues within the land management field. Rather, it focuses on the main issues relevant to creating new settlements for low-to-middle income earners, such as gaining access to well-located land and ensuring adequate amenities exist within new settlements. Other related questions are dealt with elsewhere, such as how land management could be used to achieve a change in the built environment around public transport interchanges (see Denoon-Stevens, 2014), issues concerning value capture and the best use of municipal rates to achieve the goals of the municipality (see McGaffin et al., 2013; PDG and Isandla Institute, 2009), and issues relating to land management and urban food security (see Frayne et al., 2009). While these questions are important considerations, they are excluded from the chapter because of space constraints and an abundance of existing discussion on these topics.

With regard to land management issues, this chapter aligns to a certain extent with the Breaking New Ground (BNG) programme[1] but differs in two key respects. Firstly, the chapter attempts to understand how the BNG concepts can be incorporated into existing land management tools such as spatial development frameworks (SDFs) and zoning schemes, given the imminent implementation of SPLUMA (whereas the BNG contains only limited detail in this regard). Secondly, this chapter takes a more conservative stance on using incentives and the purchase of private land for housing purposes, given the severe strain that state financial resources are already under.

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1.   BNG is aimed at improving housing delivery. It builds on the White Paper on Housing (1994) but shifts the strategic focus from simply ensuring the delivery of affordable housing to making sure that housing is delivered in settlements that are both sustainable and habitable. (www.gcis.gov.za/sites/default/files/docs/…/2008/019_housing.pdf)

THE IMPORTANCE OF LAND MANAGEMENT

Land management can be understood to be the totality of systems that are involved with the following aspects (Rubin, 2008: 3):

    a.   The manner in which land is accessed and acquired;

    b.   The process by which individuals, households and communities continue to have and to hold rights to land;

    c.   The way in which land use is regulated;

    d.   The systems by which land is developed; and

    e.   How land is traded.

The last decade has seen considerable research on land management in the South African literature (for example, Berrisford, 2011, 2013; Berrisford et al., 2008; Charlton, 2012; Du Plessis, 2014; Harrison et al., 2007;

Kihato, 2013; Ovens et al., 2007; Parnell and Pieterse, 2010; Todes, 2012; Todes et al., 2010). This literature covers some of the big issues in land management in South Africa. However, few papers have been able to propose a response to these issues, other than providing broad recommendations (with the notable exceptions of Berrisford et al., 2008; Brown-Luthango et al., 2013; Gorgens and Denoon-Stevens, 2013; McGaffin et al., 2013; Steenkamp and Winkler, 2014). In other words, the problems are known, but very little is known about the possible solutions. This chapter aims to fill some of this gap, specifically within the context of the new opportunities provided by SPLUMA.

Despite its current role as a barrier to the successful implementation of SHS, land management is also one of the key tools required to create SHS. Land management will block efforts to create SHS if implemented poorly but, when implemented wisely, can help achieve a more equitable and sustainable urban form. As the UN-Habitat (2009: 65) argues:

> [R]egulation and land-use management are the most powerful aspects of urban planning; yet most reforms have concentrated on directive planning. The regulatory system is probably the most difficult to change because of entrenched legal rights and interests; but without reform in this sphere it will be extremely difficult to use planning to promote urban inclusion and sustainability.

For the purpose of this chapter, the definition of SHS used is the one from the BNG programme (DoH, 2004: 12):

> The present and future inhabitants of sustainable human settlements located both in urban and rural areas, live in a safe and secure environment and have adequate access to economic opportunities, a mix of safe and secure housing and tenure types, reliable and affordable basic services, educational, entertainment, cultural activities and health, welfare and police services.

Based on this definition, land management can achieve the following goals:

- *Ensure adequate access to economic opportunities.* Planning cannot create economic opportunities but can ensure that the poor have access to the city's existing economic opportunities within a reasonable amount of time and cost. Drawing on Bertraud (2013), the standard used here is that urban dwellers should be able to access employment opportunities within a 60-minute commute. Furthermore, the transport cost should not be more than 10% of household expenditure (noting, however, the issues with this crude benchmark, as outlined by Venter and Behrens, 2005).

- *Ensure adequate access to educational, entertainment, cultural activities and health, welfare and police services.* These services are key necessities of most households and, if not available, urban dwellers have to commute long distances and spend unnecessarily large amounts of their income in order to access the facilities. The

standard used here is that a household should be able to access educational, medical, community and welfare facilities within a 30-minute commute.

- *Ensure adequate access to a mix of safe and secure housing and tenure types.* This is broadened to include the issue of housing mobility (see Cross in this publication and Bertraud, 2013) within the context of a housing ladder. As their configuration and income change, households need to be able change the type and location of their housing, which in turn frees up the housing they were occupying to be used by other households, thus creating a housing ladder. Failure to achieve this can result in down-raiding, where wealthier households buy out poor households who are beneficiaries of subsidy housing schemes, effectively removing a resource from the bottom rung of the housing ladder. Conversely, matching supply to demand and creating a housing ladder can ultimately result in the state no longer having to create new subsidised housing units, as new households will be able to access existing subsidy housing units (Rust, 2006).

- *Promote a safe and secure environment.* The World Health Organisation argues that urban planning can encourage a healthier environment by (1) ensuring that housing is not located in areas exposed to agents of disease or hazardous substances, such as industrial pollutants, and (2) promoting an urban form that reduces the exposure of pedestrians to vehicular traffic and mitigates against conditions that foster violence and criminality (Denoon-Stevens, 2014; Duhl and Sanchez, 1999).

THE STATE OF HOUSING AND LAND IN THE SACN CITIES

THIS SECTION PROVIDES AN OVERVIEW OF THE STATUS QUO OF LAND WITHIN THE SACN MEMBER CITIES, WITH THE AIM OF PROVIDING THE NECESSARY KNOWLEDGE TO EVALUATE WHETHER OR NOT THE LAND MARKET AND SPATIAL STRUCTURE SUPPORTS HOUSING AFFORDABILITY, MOBILITY, EFFICIENT DESIGN AND APPROPRIATE URBAN MANAGEMENT.

Status quo

In the majority of new settlements, the state has failed to create SHS and has instead built an inferior solution of dormitory suburbs located on the edges of cities. These settlements do not contribute to the goals of the BNG, as illustrated below.

Access to economic opportunities. The vast majority of the urban population – the poor – live in townships on the periphery of cities. As a result, the poor seeking to access economic opportunities located in cities bear an adverse financial and time burden. For instance, in 2013 it took more than an hour to get to work (including walking and waiting times) for 26.3% of taxi journeys, 52.7% of bus trips and 66.3% of train journeys, while 30.7% of those who walked took more than 30 minutes (StatsSA, 2014). Furthermore, an analysis of the 2003 National Household Travel Survey found that for low-income public transport users (who make up around 17% of commuters), public transport consumes around 21% of their income (Venter, 2011).

Adequate access to educational, entertainment, cultural activities and health, welfare and police services. Many of the townships where the poor live are underserviced in terms of critical public facilities and infrastructure. A mismatch exists between the location or quantity of facilities and the demand for these facilities, as shown by the 2013 National Transport Survey (StatsSA, 2014). The survey looked at which facilities households in South Africa could access within a 30-minutes commute from their place of residence and found that:

- 18.4% do not have access to medical facilities,
- 19.9% do not have access to a police station,
- 26.3% do not have access to welfare facilities,

In addition, over half (59.5%) of the learners who use a taxi to go to school and more than a quarter (27.5%) of learners who walk to school have travel times exceeding 30 minutes.
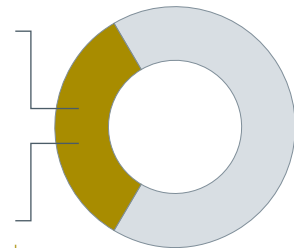
OF HOUSEHOLDS IN SOUTH AFRICA

59.5% of learners use a taxi to go to school.

27.5% of learners who walk to school have travel times exceeding 30 minutes.

These findings are largely confirmed by research done by the Affordable Land and Housing Data Centre (AL&HDC, 2012a–i), which plotted the location of affordable suburbs (i.e. suburbs where housing is valued under R500,000) in each of the nine SACN member cities in relation to employment opportunities, and public and cultural amenities. It should be noted that findings are nuanced on a city-by-city basis, as certain cities (such as Johannesburg) are performing better than others.

Adequate access to a mix of safe and secure housing and tenure types. The chapter by cross deals with this aspect in detail. However, suffice to say that at present the market is heavily skewed towards upper-middle income households: only about 20% of suburbs in SACN cities are affordable to those who earn an average income (Rust and Steedley, 2013). In addition, the choice of housing types available is limited within SACN member cities. The housing stock is skewed towards single dwelling houses, which made up approximately 67% of households in 2011, compared to about 8% who lived in flats and 18% who lived in informal housing (StatsSA, 2012a).

A safe and secure environment. Evidence indicates that the environment in a typical low-income settlement is not safe:

- Violence and injuries (due to crime and traffic accidents) are the 'second leading cause of all death and disability-adjusted life years' lost in South Africa. The country's injury mortality rate (157.8 deaths per 100 000 population in 2000) is roughly twice the global average (Seedat et al., 2009), while the road accident fatality rate was 27.51 per 100 000 population in 2010/2011 (Road Traffic Management Corporation, 2011), significantly worse than the global average of 18 per 100 000 population and the high-income country average of 8.7 (WHO, 2013).
- Of the 31 007 households interviewed for the 2012 Victims of Crime Survey in South Africa, 5.4% had been robbed, 42% felt very unsafe walking in their area at night and 14% felt unsafe or very unsafe walking in their area during the day (StatsSA, 2012a).
- In 2000, 4.6% of all deaths in South Africa were attributable to four environmental risk factors: unsafe water sanitation (the most significant risk factor), indoor air pollution, outdoor air pollution and exposure to lead (Norman et al., 2010).
- In 2000, 50 000–100 000 people were estimated to reside in dwellings located within flood lines (Alexander 2000b in Benjamin, 2008).
- During 2011 there were 4046 fires relating to informal dwellings, or roughly one fire for every 485 informal dwellings (derived from FPA, 2011 and StatsSA, 2012a), which is an unacceptably high risk.

OF HOUSEHOLDS IN SOUTH AFRICA

42%

felt very unsafe walking in their area at night
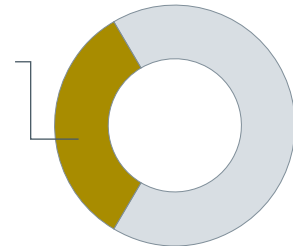
REASONS FOR THESE CHALLENGES

CLEARLY, CITIES FACE MANY CHALLENGES IN REDRESSING THE SPATIALLY DISTORTED URBAN LANDSCAPE AND DEVELOPING SHS.

Understanding why these challenges exist can help cities to address these issues; hence this section delves into some of the causal factors underlying the problems identified in the previous section.

Dwellings are located on the edges of cities. A number of commentators have examined this issue, for instance Gilbert (2004), Newton and Schuermans (2013) and SACN (2011). Arguably, one of the main reasons for locating these dwellings on the urban edge has been the emphasis on providing a full house (services, land and top-structure) to as many households as possible, rather than providing a more limited product (such as a serviced site) to a limited group of recipients – this emphasis also ignores the fact that the limited resources available are insufficient to meet this aspiration (Gilbert, 2004). The consequence has been the development of

households far from work opportunities on the edges of cities, where land costs are cheapest (Gilbert, 2004). In addition, the land used for this housing was purchased by the state and transferred to provincial or local government primarily during the apartheid era, and thus the use of this land inevitably resulted in a continuation of apartheid spatial planning.

However, this argument only partially explains the existing situation. For instance, studies show that well-located land is available for development within Cape Town (Brown-Luthango et al., 2013; Mammon, 2011): Youngsfield and Wingfield military bases alone could provide as much as 255 hectares (ha) of developable land, or potentially 25 500 dwelling units (du) or housing opportunities, assuming a density of 100 du/ha. A series of studies done by Planact and CUBES in 2007 came to a similar conclusion for Johannesburg. An explanation for this state of affairs is that (PlanACT, 2008: 2):

> [T]he different institutions involved in managing land did not operate with overall agreed strategic goals in mind, leading to a very piecemeal approach. In fact, even different agencies within the same municipality may dispute how various pieces of land might be utilized.

Therefore, a more accurate argument is that new settlements are located on the periphery of cities because of the urban land markets (cheaper land is found on the outskirts) combined with the questionable use of well-located state land for purposes other than the creation of new SHS.

The fragmented nature of government. The underprovision of amenities in new housing areas is in part because of the lack of one coordinating authority. All three spheres of government are involved in creating SHS. According to Schedules 4 and 5 of the Constitution (1996), the planning of (for example) new police stations and tertiary educational facilities is an exclusively national competence, the planning of schools is an exclusively provincial competence, while municipalities have the sole executive competence to plan for bulk services, childcare facilities and firefighting services. This means that where efforts are not aligned (as is frequently the case), the result is the undersupply of key public services.

The other explanation is that municipalities are not legally bound by the Constitution or current law to set aside land for amenities within new settlements, which fall within the jurisdiction of provincial or national government. The current law governing the creation of low-income settlements in South Africa places no obligation on the state to provide commercial or public facilities (Parnell and Pieterse, 2010; Zack and Silverman, 2007). If such facilities have been provided, this has been largely at the initiative of local and provincial authorities. While 'informal' standards do exist (e.g. the red book produced by the CSIR in 2001), the lack of mandated standards is likely to blame, at least in part, for the underprovision of public facilities within new settlements.

The inadequate provision of access to a mix of safe and secure housing. This is partially explained by the state's overemphasis on the lower end of the housing market (Rust, 2006), i.e. those earning less than R3,500 per month. Housing built by the private sector in metropolitan areas rarely costs less than R270,000–R300,0000 (Rust, 2013), and so only those with a monthly income of more than R9,000–R10,000 can afford to rent these dwellings (based on the rent/bond being a maximum 30% of household income). Therefore, using Census 2011 figures (StatsSA, 2012b), around 25% of households in SACN cities are not eligible for subsidy housing and will struggle to purchase or rent accommodation in the formal market. In other words, given that the private sector has not been historically able to provide housing to these income groups without state assistance, the state's decision to focus exclusively on those earning less than R3,500 has created an undersupply of gap and affordable housing (Rust, 2006, 2013).

Also contributing to the unsafe and insecure nature of settlements are behavioural, socioeconomic and built-environmental factors, which cannot be explained by one overarching issue. The high prevalence of violent crime in South Africa is attributable to a number of factors, including ambivalence towards the law, an ineffective justice system, poverty, income quality and high unemployment rates (CSVR, 2007). Similarly, the poor state of health within new state-provided housing settlements results from a combination of factors, including a lack of knowledge about sanitary practices in the home, the shortage of taps within homes and the inadequate servicing of new settlements, especially given the presence of backyard shacks (Govender et al., 2011). Informal settlements are most exposed to hazards, in the form of a deadly storm of unenforced basic building standards and the lack of available land, resulting in the use of flammable building materials, informal electrical connections and building in flood plains (City of Cape Town, 2005, 2013).

HOW LAND MANAGEMENT CAN (OR CANNOT) ADDRESS THESE ISSUES

THIS CHAPTER AIMS NOT SIMPLY TO REITERATE THE PROBLEMS, BUT TO PROPOSE BETTER WAYS OF PRACTISING LAND MANAGEMENT, SO THAT IT CAN ENABLE (NOT CONSTRAIN) THE CREATION OF SHS.

The SPLUMA offers a number of new opportunities.

When SPLUMA comes into effect (probably in late 2014), municipalities will have a fundamentally different way of approaching the practice of land management. For instance, SDFs are now legally obliged to provide:

- Both a five-year vision and a long-term vision of the municipality's spatial development – Sections 21(b) and (c).
- An estimation of housing needs and identification of the planned locations and densities of future housing – Sections 21(b) and (c).
- An estimation of the scale and location of capital and infrastructure upgrades required within the municipality – Sections 21(h) and (n).
- A spatial depiction of the above, as well as a spatial representation of how spending by all municipal departments will be spatially integrated – Section 21(m).
- An implementation plan, which includes details of institutional arrangements, partnerships required and targets against which implementation can be measured – Section 21(p).

In terms of land use, SPLUMA also reinterprets the traditional concept of a zoning scheme, which has historically been seen as a separate document to the SDF. Section 25(1) of SPLUMA states that:

A land use scheme must give effect to and be consistent with the municipal spatial development framework and determine the use and development of land within the municipal area to which it relates in order to promote –
a. economic growth;
b. social inclusion;
c. efficient land development; and
d. minimal impact on public health, the environment and natural resources.

Given this standard, most existing municipal zoning schemes and maps will be incompatible with SPLUMA's requirements. In effect, Section 25 requires municipalities to facilitate, or undertake, the rezoning of land (or the creation of overlay zones) in the zoning scheme to 'up-zone' (increase the rights permitted) in areas where the SDF encourages development and to introduce stipulations in the regulations that realise the ambitions of the SDF. The impacts on the role of planning within metropolitan municipalities are significant:

- Given the focus of a five-year term, the SDF will now parallel the IDP, which means that the two documents will need to be compatible with one another. In addition, both documents will need to contain specific, not abstract proposals, as is often the case at present.
- Housing (and its location) is no longer simply a concern of the housing department, as it will be included as part of the municipality's spatial planning framework.
- Infrastructure planning will be guided and constrained by what is shown in the SDF. This in turn will provide a firmer link between policy and practice, as major upgrades will no longer be able to occur in an ad-hoc fashion.

Collectively, this represents a major opportunity to shake up current land-management practice and to introduce the principles of SHS into the institutional framework within which land management operates.

THE LIMITATIONS, AND DANGERS, OF LAND MANAGEMENT

following is still needed: political will to build the new school, finances to fund the construction, plans drafted for the top structure, the construction process, teachers hired and a management structure developed for the school. Thus, while reform of land management is necessary for the creation of SHS, land management by itself is insufficient and must be linked to a broader reform of how settlements are developed.

2. Done incorrectly, land management can impede the creation of SHS.

One of the main reasons for the failure or delayed implementation of human settlement projects is the 'highly complicated and fragmented framework' within which officials operate (Berrisford et al., 2008: 9; Kihato, 2013; Tissington, 2011; Utshani Fund, 2011; Zack and Silverman, 2007). Thus, while this chapter looks at the positive impact of land management, ways in which land management can impede the creation of SHS must also be considered.

3. National and local government priorities often differ.

The priorities of national government and municipalities are often different and can have a significant impact on the creation of SHS. For instance, while certain national departments may place the needs of the poor at the forefront of their concerns, municipalities may have split interests between providing for the poor, and using land sales to increase revenue (Mammon, 2011).

1. Land management alone cannot achieve the creation of SHS.

Land management is but one part within the broader machinery of government. For instance, land may be reserved for a new school in new settlements, but the

RECOMMENDATIONS

This section provides seven recommendations for reforming land management practice, in order to contribute to the creation of SHS and illustrates how these reforms can address the challenges discussed earlier.

Recommendation 1: Review the use of all state land as part of the SDF process and transfer to (or reallocate within) municipalities any vacant or underutilised state land that is appropriate for human settlement purposes

Responds to the challenge of needing to locate new settlements for low-to-medium income households on well-located land (in terms of economic opportunities and educational, entertainment, cultural activities and health, welfare and police services).

In order for well-located state land to be released and be available for human settlement purposes, a conversation is needed about state land in general and the appropriate usage of this land in terms of national priorities. A land audit is obviously required (DAG, 2007; DRDLR, 2013; Thellane, 2008) but, more fundamentally, a shift in conceptualisation is needed, whereby the broader potential of land is considered in terms of national, provincial and municipal priorities, and is assigned the highest and best use, instead of individual departments retaining control of specific portions of land, even if managed through one central department, such as the Department of Public Works (Mammon, 2011).

The state will need to be creative in order to overcome the limitations of land management. The majority of residential development will have to occur on state land, as the majority of households can only afford a house provided by (or built with the assistance of) the state. The state's resources are also too limited (and the needs too pressing) to buy up private land, especially when potential state land is available. (This also makes the concepts of land banking, whereby the state buys land and retains it for future use, questionable, given that this results in valuable state resources being spent on possible future needs, as opposed to focusing on present needs). For example, in Portland and San Francisco, USA, highways were demolished and the land reclaimed for housing and other land uses (Cervero et al., 2009). Another example is the proposal by Intersite to sink the railway in Cape Town between Woodstock and Cape Town station, freeing up 50ha of land for around three million square meters of bulk.[2]

AS A PRACTICAL EXAMPLE, IF THE NATIONAL GOVERNMENT DEEMS THE LAND OF A MILITARY BASE IS MORE VALUABLE FOR HOUSING PURPOSES, THEN THE MILITARY SHOULD BE OBLIGED TO GIVE UP THIS LAND. HOWEVER, FOR THIS TO HAVE ANY CHANCE OF BEING SUCCESSFUL, THE CABINET AT PROVINCIAL AND NATIONAL LEVEL, AND THE MAYORAL COMMITTEE IN MUNICIPALITIES, WILL NEED TO GIVE THEIR SUPPORT TO THIS PROCESS (GIVEN THE EXTENSIVE INTER-DEPARTMENTAL COLLABORATION THAT WILL BE REQUIRED).

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2.   *Cape Times.* 2010. R80bn project to transform Cape Town by 2030. Available online at: http://www.makekadesigns.com/news/r80bn-project-transform-cape-town-2030-0 (9 April 2014).

The SDF process is one way of starting and driving this discussion. Each sphere of government could identify its respective land holdings and then review the highest and best use of this land (which is in accordance with, but not required by, Sections 14, 16, and 21 of SPLUMA). Then, on the respective SDFs, land could be reserved for affordable and incremental housing (which will likely be almost exclusively state land) and associated land uses, segmenting the land reserved for residential purposes on the SDF by income group. This could be taken further within the SDF by making the areas identified for affordable and incremental housing a structuring element of the overall SDF proposals, thus encouraging the city's development to align with the location of these areas. This aligns with the goals of SPLUMA to promote the principles of spatial sustainability, spatial justice, and efficiency (Section 7).

Recommendation 2: Require (through the zoning scheme regulations) that land be reserved for economic, retail, educational and other land uses in incremental housing developments (including locational and size requirements)

This responds to the challenge of ensuring adequate access to educational, entertainment, cultural activities and health, welfare and police services and the creation of a safe and secure environment.

There appears to be an undersupply of commercial, educational, community and social facilities within new settlement developments. Although municipalities do not have the constitutional mandate to supply these facilities,

nothing is stopping them from reserving land and specifying the locational requirements of these facilities in new developments. In practice, the zoning category could have specific stipulations for what other land uses must also occur within the new settlement, when an application is made to subdivide or rezone land for the purpose of incremental settlements.[3] For instance, (i) a section could be added to the zoning scheme stating that land must be set aside and zoned appropriately for community facilities and commercial usage when a property is rezoned for the purposes of incremental housing (ii) standards could be included for the location and quality of land to be set aside (e.g. for community zone 1&2, local business 1&2 or open space) – appropriate standards could be derived using the guidelines proposed by the CSIR (Green and Argue, 2012) to determine how much land should be reserved for particular functions. The reservation of land and the locational requirements for facilities will thus be a mandatory requirement, not an optional exercise (as is currently the case).

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3.   For more information on incremental settlements, see the MLS case study.

This is not a new idea. Similar provisions are found in some of the oldest examples of development control standards, such as the Law of the Indies which governed the development of most historic Latin American cities, sections of the United Kingdom Crown Lands Act of 1861 or the North American Land Ordinance of 1785. For example, under the North American Land Ordinance, funds from selling a portion of one section within each new township in the USA were reserved for public education (Section 16), while the remainder was retained to accommodate the school, thus ensuring adequate provision, both financially and locationally, for schooling facilities, (McClure et al., 1985; TAHPDX, [nd]). Although these standards are no longer in force, they established principles that continue to have a positive impact on the respective urban form today (see for instance Rodriguez, 2005). Therefore, it seems prudent to reintroduce these tried and tested concepts into contemporary practice, as they have proved to be pivotal in the creation of SHS in historical practice.

A MUNICIPALITY CAN ENCOURAGE THE DEVELOPMENT OF RENTAL AND AFFORDABLE HOUSING THROUGH THE USE OF LAND AVAILABILITY AGREEMENTS.

Nevertheless, such a provision would not guarantee that the land in question would be used by the respective department. For example, a municipality can set aside land for a school but does not have the constitutional power to ensure that a school will be built there.

However, what the provision would do is to ensure that an appropriately located and sized portion of land would be available for use when the respective provincial department catches up with demand.

Recommendation 3: Release land to private sector contractors to develop social and rental housing

This responds to the challenge of ensuring adequate access to a mix of safe and secure housing and tenure types (i.e. creating a full housing ladder).

One way in which a municipality can encourage the development of rental and affordable housing is through the use of land availability agreements. How this works is the municipality puts out to tender a contract (to prepare a layout plan, obtain the necessary development rights, and construct and sell the houses) but retains the ownership of the land until sale to the final recipients. For the private sector, the advantage of this process is that they do not have to deal with holding costs or obtain financing for a substantial part of the development (Thellane, 2008). Ideally, the goal would be to recover the full costs of professional fees and construction costs. In other words, the state's role is to enable the delivery of cost-effective housing for the gap/affordable market but not necessarily to subsidise this market.

A slightly less radical example of this approach in action has been the development of Pelican Park in Lotus River/Schaap Kraal, Cape Town. This process involved the construction of gap, subsidy and market housing, and commercial development, with the construction of

subsidy housing falling under one contractor. The state funded the subsidy houses, with cross-subsidisation from the sale of gap and market houses, and the developer was required to procure finance for the gap and market housing and commercial component from an outside funder. The result was a publicly driven development containing the full housing ladder and (eventually) commercial development and two schools. This is arguably the very essence of SHS creation (City of Cape Town, 2011).

Recommendation 4: Sell state land that is not suitable for residential purposes (or better suited to other purposes) to the private sector, to cross-subsidise the purchase of well-located land for residential purposes or the provision of public goods and services in low-to-middle income areas

This responds to the challenge of needing to locate new settlements for low-to-medium income households on well-located land (in terms of economic opportunities and educational, entertainment, cultural activities and health, welfare and police services).

The state has too many competing demands on its existing resources to purchase private land for the purpose of new human settlements (except in exceptional circumstances). One way of raising the resources needed to purchase well-located state land is to sell off (or swap) portions of land that are not suitable for low-to-middle income settlements. This includes land that abuts factories or has geotechnical or environmental limitations, which allow for low densities or only a small portion of the site to be developed. The resulting revenue could be ring-fenced for the purchase of land for new settlement purposes or to cross-subsidise the provision of public goods and services in low-to-middle income areas (McCarthy, 2006; Thellane, 2008).

Recommendation 5: Use planning conditions/ regulations to incentivise and mandate the development of private sector housing catering to the (lower) middle-income market

This responds to the challenge of ensuring adequate access to a mix of safe and secure housing and tenure types (i.e. creating a full housing ladder).

The state is severely limited in terms of using the development control process to gain access to land owned by the private sector (via conditions of approval) for new settlements purposes, as the courts usually view as a form of expropriation any demands on land over and above the reasonable requirements of the development in question.[4] However, SPLUMA broadens the parameters of what can be required from private sector developers. Section 42(1) argues that, when deciding a planning application, the '(i) the public interest' and '(ii) the constitutional transformation imperatives and the related duties of the State' must be considered. Therefore, it could be argued that, as part of a planning approval, a municipality can reasonably require a developer to cater for a portion of the housing products being offered to a certain income group, but only to the point where the developer is not forced into a situation that results in a de facto expropriation of land.

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4.   *Belinco (Pty) Ltd v. Bellville Municipality* 1970 (4) SA 589, as quoted in *City of Cape Town v Helderberg Park Development (Pty) Ltd* (291/07) [2008] ZASCA 79; 2008 (6) SA 12 (SCA)

One way could be to make the approval of land-use application contingent on the developer providing a number of housing types and sizes that are likely to be purchased by a lower income group than that of the rest of property owners in the development. The principles behind these conditions could be set as part of the zoning scheme regulations and could be guided by the SDF. For example, an application is made for a 100-unit upper-income, low-density housing development in an area allocated for medium-density development on the SDF. Instead of simply approving or refusing the development, the municipality could approve it in principle, subject to the submission of a revised plan, which includes a further 30 units catering to a lower-income bracket than the remainder of the units in the development (e.g. units must be no larger than 45m^2, contain at least three bedrooms, be built to basic specs and sold with a profit margin of no more than 5%). This type of condition walks the line between holding developers to ransom and requiring them to build in a manner that recognises the principle of spatial justice and the broader public interest.

Recommendation 6: Undertake development control applications for new human settlement developments as one bulk application, to achieve economies of scale

This responds to the challenge of ensuring that development control processes do not impede the delivery of SHS

The municipality could amend the zoning map through one mass rezoning application for all portions of land in order to give legal status to existing appropriately located informal settlements, new portions of land deemed appropriate for incremental housing (i.e. future housing developments) and areas where second dwellings are appropriate, (as per Section 21(p)(ii) of SPLUMA; see also Gorgens and Denoon-Stevens, 2013). The advantage would be to achieve economies of scale when making development applications: for all housing sites shown on the SDF, one group of consultants gets appointed, one report is written to Council, and one Council decision is taken. The result would be significant cost savings in terms of time and money expended to obtain development rights.

THE MUNICIPALITY COULD AMEND THE ZONING MAP THROUGH ONE MASS REZONING APPLICATION FOR ALL PORTIONS OF LAND.

This recommendation also recognises the fundamentally different role that zoning scheme regulations play under SPLUMA as opposed to current legislation. According to SPLUMA, the zoning scheme is primarily a tool for implementing the SDF and cannot legally contradict the SDF. It is also premised on the experiences of cities such as New York, Barcelona and Curitiba, all of which similarly enabled reform of the built environment by increasing development rights in areas where development was encouraged (Burden, 2013; Gorgens and Denoon-Stevens, 2013; UN-Habitat, 2013).

Furthermore, land that is required for incremental housing (and is not environmentally sensitive) could

be exempt from the Environmental Impact Assessment (EIA) process. This could be achieved by taking the mandatory Strategic Environmental Assessment process (which forms part of the SDF, SPLUMA Section 21(j)) one step further for incremental housing sites, identifying which incremental housing sites are unlikely – or likely – to have any significant environmental impact. Where the impact is unlikely to be significant (or where specific conditions can deal with these concerns), the land could then be exempt from having to go through the EIA process, as per Section 24 of the National Environmental Management Act (1998), and from certain sections of the National Heritage Resources Act, 2000, such as Sections 34(3) and 38(9) (Berrisford et al., 2008).

Recommendation 7: Remove unnecessary restrictions and clauses and then enforce zoning schemes

This responds to the challenge of ensuring that development control proceeds do not impede the delivery of SHS

One of land-use management's key roles is promoting a safe and secure environment. For instance, preventing occupation of land that is potentially affected by hazards, limiting densities and offensive land uses, and guiding the design of the street (see Denoon-Stevens, 2014). However, this is only possible where these restrictions are enforced. Given that where one regulation is enforced, then technically all regulations could be enforced, an obstacle to enforcement is the presence of unnecessary regulations that penalise legitimate uses of the land. For instance, requiring that only the occupant of a dwelling

can run a business from their premises (City of Cape Town, 2012: S5.2.3.b). This would mean that in Phillipi, Cape Town, '61% (or 981) of the total number of micro-enterprises in Browns Farm operate illegally and would be subject to closure (or curtailment) if law enforcement were to be effectively applied (Charman et al., 2013).

LAND MANAGEMENT HAS THE POTENTIAL TO HELP REALISE A MORE EQUITABLE AND SUSTAINABLE URBAN FORM.

The solution is simple – go through the zoning scheme regulations (and other by-laws) that affect low-income communities and question the value of each regulation, with the aim of removing all restrictions which are non-essential. This would then provide legitimacy to enforcing the remaining zoning scheme regulations/by-laws in these areas. For instance, restrictions that permit only one dwelling unit on a property, thus criminalising backyard shacks or units, could be lessened to an appropriate degree (Rubin and Gardner, 2013), for example permitting one dwelling per every 35m^2.

CONCLUSION

This chapter has argued that land management has the potential to help realise a more equitable and sustainable urban form, enhance household mobility and encourage SHS as defined in the BNG policy, especially given the changes proposed and mandated by SPLUMA.

However, the current state of affairs is relatively dire; a disproportionally high part of the working population takes longer than an hour to get to work, as a result of low-to-middle income settlements being located on the periphery of SACN cities. Most townships in metropolitan areas are undersupplied in terms of basic amenities and are in most instances unsafe places to live, and most metropolitan cities have a housing supply which is skewed towards upper income households. Some of the causes for this include an overemphasis on provision of a fully serviced house (top structures and services) to as many households as possible, thereby diverting state resources from focusing on other aspects that make up an SHS. Furthermore, the fragmented nature of government (with regard to the division of roles between national, provincial and local government), and the use of state land for uses other than SHS (such as the disposal of state land to the private sector for shopping mall developments) is also partly to blame.

In response to this, seven suggestions are proposed, all of which try to utilise the new opportunities offered to local government by SPLUMA to the best possible advantage:

- *Review the use of all state land as part of the SDF process and transfer to (or reallocate within) municipalities any vacant or underutilised state land that is appropriate for human settlement purposes.* Achieving this goal, which has been around since at least 2004 with BNG, might be possible by linking it to a concrete mechanism, specifically the SDF process at national, provincial and local scale.

- *Require (through the zoning scheme regulations) that land be reserved for economic, retail, educational and other land uses in incremental housing developments (including locational and size requirements).* While this requirement cannot guarantee the provision of such facilities, it ensures that adequate land (within a suitable walkable/ commutable distance from houses) will be available for these amenities for when state departments are able to provide facilities within SHS areas.

- *Release land to private sector contractors to develop social and rental housing.* A much greater use of Land Availability Agreements could bolster the supply of affordable housing.

- *Sell state land that is not suitable for residential purposes (or better suited to other purposes) to the private sector, to cross-subsidise the purchase of well-located land for residential purposes or the provision of public goods and services in low-to- middle income areas.* The public sector should be encouraged to treat its land reserves as an economic asset that can be used to raise revenue for other core needs (such as the provision of amenities).

- *Use planning conditions/regulations to incentivise and mandate the development of private sector housing catering to the (lower) middle income market.* Current housing stock is skewed towards upper-income households (in relation to the number of upper-income households), this

measure attempts to bring some balance to private sector housing provision. The emphasis here is on housing type and specification quality rather than forcing the private sector to sell houses at a price that is below cost (or with no profit margin).

■ *Undertake development control applications for new human settlement developments as one bulk application, to achieve economies of scale.* SPLUMA's emphasises using the land use management system to implement the SDF, and so the public sector should be encouraged to drive the rezoning process, as opposed to the status quo, where the private sector are the primary agents of rezoning applications.

■ *Remove unnecessary restrictions and clauses and then enforce zoning schemes.* In order to effectively enforce zoning schemes, problematic sections need to be removed so that enforcement does not result in more harm than good.

In summary, this chapter has attempted to put forward a practical, yet bold, framework for action by the municipal land management sector. It has argued that the land management sector has an important role in creating cities where every citizen has equal access to the full opportunities offered by cities – cities that act as incubators for the dreams and hopes of their residents. To achieve this, state land must be valued and serve the needs of all citizens, equally and equitably.

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CITIZENSHIP, DESIGN ACTIVISM AND INSTITUTIONALISING INFORMAL SETTLEMENT UPGRADING

Edgar Pieterse and Mirjam van Donk

INTRODUCTION[1]

DIEPSLOOT (HARBER, 2012) IS ONE OF THE MOST ARRESTING REMINDERS OF THE HEFTY PRICE TO BE PAID FOR FAILING TO UNDERSTAND AND ENGAGE WITH THE SOCIAL, ECONOMIC, POLITICAL AND CULTURAL COMPLEXITIES OF DENSE SHANTY TOWNS OR INFORMAL SETTLEMENTS ACROSS SOUTH AFRICA.

A decade ago, housing policy was re-routed to become human settlements. This policy shift – dubbed Breaking New Ground (BNG) – included a different governmental approach to the growing and intensifying reality of informal settlements. Since 2004, a number of important fiscal and institutional reforms have given expression to the official government policy to upgrade 400 000 well-located shacks by 2014. Yet despite this, as anyone with the slightest interest or awareness of urban policy

1.   The chapter was conceptualised with Aditya Kumar and we are grateful for his contribution to the framing of the issues discussed. We are grateful for the editorial feedback that has improved the clarity of the chapter.

dynamics in South Africa would readily concede, on the whole South Africa is a very long way off from addressing the pressing realities of shack living with intelligence and competence. The National Development Plan (NDP) certainly makes this very clear (NPC, 2012).

Most local authorities lack the capacity, institutions, know-how and data to intervene effectively. Most civil society organisations active in this domain are struggling to articulate a clear and effective approach to place-specific and truly empowering interventions. Across the civil society spectrum, much ideological certitude is found but few practicable ideas that can work at scale. Within this policy malaise, there has been a marked reticence on the part of the design disciplines to offer some ways forward or at least to enrich and extend this vital debate (Dewar and Louw, 2012). This is striking, given the importance of design thinking and activism in other parts of the global South (especially middle-income countries that are comparable to South Africa) in making much quicker and more effective inroads into the problem.

Although generally little attention has been paid to questions of design in city-making, especially in informal contexts, the recent *Informal City* exhibition opened the agenda. The exhibition (and accompanying book) showcases the work of various designers concerned with place-making across various dimensions: alternative public housing design, in-situ informal settlement upgrading, public space-making interventions, transport interchanges and services points, among others (Poulsen and Silverman, 2012). The book is largely descriptive, with a seeming reluctance to delve into the inevitable

complications, entanglements, power struggles and institutional frustrations that no doubt accompanied each project and plan showcased.

This chapter sets out ways in which to think about the role of design in relation to informal settlement upgrading and how it can bolster active citizenship. It explores the inter-connections and overlaps between three discourses/practices: participatory development, informal settlement upgrading and design. The primary interest is the importance of 'design thinking' for dramatically improving the efficacy of participatory upgrading and maintenance processes, with a partiality towards a citizen-centred conception of democratic urban governance. To ground the policy frameworks and recommendations that follow, the conceptual landscape is first laid out.

CONCEPTUAL AND POLICY LANDSCAPE

THE THREE CONCEPTUAL TERRAINS OF THIS CHAPTER – PARTICIPATION, INFORMAL SETTLEMENT UPGRADING AND DESIGN – ARE EACH IN THEIR OWN RIGHT IMMENSELY COMPLEX.

Drawing on previously published research, highly stylised summaries of the notions of participation and upgrading are provided, to create the space for a more considered reflection on design.

Participation

Participation remains one of the most widely accepted and inviolable principles of development. Over a decade ago, the self-evident good of participation was destabilised by the publication of *Participation: The New Tyranny?* (Cooke and Kothari, 2001). Since then, debates on participatory development have become more nuanced, through an understanding that participation in and of itself does not guarantee a positive or just outcome. In fact, participation can be used to legitimise profoundly unjust and oppressive outcomes (see Ballard, 2008; Miraftab, 2003, 2004). Participation can form part of a larger neoliberalisation

project within which the state abdicates its responsibility for delivery and makes poor citizens (who in particular cannot afford to pay for services) responsible for their own wellbeing. Participation can also produce undemocratic and authoritarian practices within civil society, as certain powerful 'community leaders' or political party activists hijack legislated processes and distort the possibility of deep and genuine agonistic debate[2] and inclusive decision-making. These criticisms, evident in contexts across the world, are reinforced by the literature on formal participatory systems at local level across South Africa. This literature uncovers the ineffectual role of ward committees, the unaccountable behaviour of political representatives, and the poverty of participatory and consultative processes designed around the production of integrated development plans and a variety of associated processes related to planning, budgeting and modalities of service delivery (see GGLN, 2011, 2012, 2013; Isandla Institute, 2013; Pieterse and van Donk, 2013).

In the wake of these often devastating critiques of participatory development approaches and mechanisms, a more provisional and circumscribed 'consensus' can be mapped out. Firstly, participation must always be located within an understanding of conflictual political relations in the city.[3] Radical democratic theorists define democracy as institutionalised processes of friendly conflict (Amin and Thrift, 2013; Mouffe, 2000). In other words, in a highly divided and unequal society, the point is not to arrive at consensus but rather to bring differences and conflicts to the surface, in order to generate more heated and deeper democratic engagements. Only then can the root causes of social and

economic conflicts emerge, creating the basis for more radical and transformative debates that can then generate more meaningful options and interventions (Hillier, 2002).

Secondly, effective participation requires institutions across the state, civil society and the private sector that are willing and able to engage in dialogic learning[4] (McFarlane, 2011). Unless state institutions (or civil society organisations for that matter) are open to continuously adapt and refine their positions and capabilities, they will not be able to sustain and improve participatory processes, agreements and co-dependent actions. All institutions manifest a distinctive DNA that make them akin to people – riddled with contradictions and insecurities that are continuously compensated for, undermining trust and a capacity to cooperate. Unless institutional organisms become more reflexive – are able to be self-critical and reflective – they are simply unable to evolve to being true partners or collaborators.

Thirdly, effective participation demands a capacity for experimentation, failure, learning, re-doing and so on (Masiko-Kambala et al., 2012). The state, as the guarantor of a democratic atmosphere, must nurture and protect the space and security for learning, which comes through doing and making mistakes.

Lastly, effective participation depends on actors who have a clear purpose and are able to distinguish their relative roles from other actors in the broader institutional landscape in play around a specific plan, programme or project.[5] Often participatory processes produce endless

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2.   For more on this conceptual approach, Mouffe C. 2000. *The Democratic Paradox.* London: Verson; DiSalvo C. 2012. Adversarial Design. Cambridge, MA: The MIT Press (with reference to design theory).
3.   The theoretical basis of this relational model of political dynamics in democratic contexts is spelled out in Pieterse (2005; 2006).
4.   'Dialogic learning is a theory of learning and teaching. Learning is created through curiosity, dialogue and consensus.
5.   See Pieterse and van Donk (2002) that maps out the organisational development implications for CBOs and NGOs that are committed to define and deepen their core purpose and concomitant roles.

conflicts and confusion because different participants have unrealistic expectations of their counterparts. The importance of effective participatory development practices is underscored uniformly in the burgeoning literature on informal settlement upgrading, which is covered in the next section.

INFORMAL SETTLEMENTS REPRESENT THE CAPACITY OF THE URBAN POOR TO ADAPT … AND BUILD LIVELIHOODS AND NEIGHBOURHOODS AGAINST THE ODDS.

Informal settlement upgrading

Over the last 20 years, the number of informal settlements has grown almost tenfold, from an estimated 300 in 1994 to 2628 in 2010 (NUSP, 2011). On the one hand, informal settlements are the lived embodiment of exclusion from development opportunity in South African cities and society at large. On the other hand, informal settlements represent the capacity of the urban poor to adapt, manifest agency, and build livelihoods and neighbourhoods against the odds, in harsh conditions.

Policy provisions for informal settlement upgrading are found in the National Housing Code of 2009 – Upgrading Informal Settlements Programme (UISP). Apart from specifying the various phases of incremental upgrading and associated steps (referred to as 'milestones') and activities, the Code also spells out progressive objectives and provisions for community participation, stating

categorically that '[i]t is of the utmost importance that the community is involved in all aspects of the settlement upgrading process' (DHS, 2009: 30). It even makes provision for a budget allocation of 3% towards capacitating communities to be actively involved in upgrading processes. The focus is on this policy requirement, as this agenda must be connected with the imperatives of spatial design and institutional literacy.

Despite these provisions, political ambiguity (if not hostility) towards informal settlements has stifled the widespread uptake of informal settlement upgrading policy provisions (Tissington, 2012). Only with the adoption of Outcome 8 in 2010, which includes provision for the establishment of the National Upgrading Support Programme (NUSP), was the political ambiguity (at least at national government level) definitely lifted and informal settlement upgrading defined as a key delivery outcome.

It is too soon to assess whether the delivery target (to upgrade 400 000 households in well-located informal settlements, with access to basic services and secure tenure by 2014), coupled with the establishment of NUSP, will result in settlements that are developed incrementally[6] through deep community participation, as envisaged in the National Housing Code. However, early indications are that neither incrementalism nor participation and state-community partnerships are pursued instinctively or as a matter of course.[7] If anything, informal settlement upgrading is being added on to the responsibilities of housing departments that are predominantly geared towards providing BNG housing on greenfield sites. Thus, in most municipalities, too few people are working on

6.   See the research study by Elgin in this publication.
7.   See, among others, the lessons emerging from CORC/ISN in the City of Cape Town and Stellenbosch.

informal settlements upgrading, and expertise on doing this in a participatory way is limited. In this context, the importance of design-based approaches to participatory informal settlement upgrading is hardly on the agenda. Therefore, it is important to explore why design matters greatly for both participatory development and informal settlement upgrading.

Design

It is useful to distinguish between 'design thinking', 'design process' and 'design activism', starting with design in its own right. According to Peter Fisk (2011: 179), design:

> refers to the process of originating and developing a plan for a product, structure, system or component. As a noun, "a design" is used for either the final solution or the result of implementing that plan – the final product of a design process. It is about function and form, rational and emotional, process and solution. [Effective design requires one] to consider the aesthetic, functional, and many other aspects of an object or a process, which usually requires considerable research, thought, modelling, adjustment and redesign.

Design Thinking

Building on this understanding, Fisk (2011) further suggests that 'design thinking' is characterised by: (i) an obsession with the customer, or client, or citizen(s); (ii) ideas generated by multiple disciplines and perspectives in a team context; (iii) a willingness to learn through doing, i.e. through prototyping in order to test and continuously

refine a co-produced idea; and (iv) translating design ideas or proposals into emotionally engaging narratives that steer clear of being gimmicky or exploitative. Design thinking, in this sense, can apply to almost any product or process generated by either the private sector or the public sector, where the quality of the supplied product or service needs to be improved. For businesses, getting it right means greater market share and wealth. For governments and voluntary sector actors (e.g. NGOs and grassroots movements), it means greater service satisfaction, legitimacy to operate and, crucially, empowerment of citizens and consumers of a particular service.

If these imperatives are applied to informal settlement upgrading, such processes would have to be truly citizen-centric, integrated, premised on participatory learning by doing, and potentially result in outcomes that resonate with a community's identity at a deep level. In short, design thinking principles hold the key to drive innovation and service delivery excellence in informal settlement upgrading and broader processes of advancing integrated

human settlements. Design thinking enables the multi-dimensionality of informal settlement upgrading to be considered, in terms of process, product and impacts.

Design thinking is not always taken very seriously in the development community because it is incorrectly associated with consumerist fads. However, it is possible to marry design thinking and social transformation, especially in spatial disciplines such as architecture, urban design and planning (Awan et al., 2011; Boyer et al., 2011; Sinha, 2012; Thorpe, 2012). This requires a systemic understanding of capitalism and attentiveness to power relations in highly unequal societies (Thorpe, 2012); the macro dimensions are compellingly explored in the books *Recipes for Systemic Change* (Boyer et al., 2011), *Cities by Design* (Tonkiss, 2013) and *Architecture & Design versus Consumerism* (Thorpe, 2012). However, the interest here is the potential impact of design on the built environment, especially poor and marginal urban spaces, which leads to the debates on 'design activism'.

Design Activism

At its core, design must facilitate and produce democratic practices and cultures (Boano et al., 2012). This demands engaging explicitly with the drivers of social and political inequality, so that responses achieve the right balance between serving the immediate interests of the participants and speaking to the larger context that reproduces the problem. In other words, effective design is political, i.e. preoccupied with finding alternatives

to the status quo and working both pragmatically and strategically to insinuate those alternatives into the present. Yet design must also be emotionally and culturally resonant, so that the process and outcomes make sense to those involved, who (most importantly) can see themselves being the leading agents of those changes. As Boano (2012) says:[8]

> the design process is simultaneously the production of physical form, the creation of social, cultural and symbolic resources and also, critically, the outcome of a facilitative process in which enablement, activism, alternatives and insurgence and resistance becomes a central idea.

This exposition brings to mind the many studies on participatory development through empowerment pedagogies of learning, as exemplified in the works of Chambers (1997) and Hamdi (2004). This oeuvre has of course led to the production of a wide-ranging catalogue of participatory development methodologies such as rapid appraisal,[9] among many others (Chambers, 2008). However, those methods tended to be diagnostic and less propositional, or merely suggestive, when it came to identifying alternatives. Design activism applied to the built environment is much more oriented to what should – and could – be done to improve settlements and the quality of life of individuals and households through investing in and enlarging the public realm. To make this discussion more practical, it is worth turning to a few noteworthy international trends.

8.   Drawn from a PowerPoint lecture, 'Design Dissensus', presented by Camillo Boano at the World Urban Forum, September 2012, Naples, Italy. The authors have a copy of this lecture.
9.   Rapid appraisal refers to ways of gathering data systematically, which range from very informal methods (e.g. short site visits) to highly formal methods (e.g. censuses). pdf.usaid.gov/pdf_docs/PNABY209.pdf.

LEARNING FROM THE SOUTH

ONE OF THE MOST CITED EXAMPLES OF SUBSTANTIVE URBAN TRANSFORMATION IS MEDELLÍN IN COLOMBIA, WHICH IS INDEED A REMARKABLE STORY.

Just 15 years ago, the city was still in the grip of extreme drug-related violence, with gangs controlling the poor parts of the city and routine terror attacks related to the long-standing civil war, resulting in one of the highest homicide rates in the world. Violence bred militarisation, which in turn meant a long-term underinvestment in social development (education and health) and human settlements. However, in less than a decade, the city government turned the situation completely around. Medellín demonstrates that it is possible to be audacious, inclusive, participatory and quick to implement and

aggregate diverse investments to achieve an outcome that is much greater than the parts.[10] At the heart of this achievement was a steadfast belief that the poorest citizens and areas in the city deserved the best possible design to restore public trust, engagement and commitment to place-making.

In just three years (2002–2004), Mayor Fajardo and his team (building on the agenda established by the previous mayor) drove a relentless programme to create integrated library-parks at strategic nerve endings in the poorest barrios (townships) of the city. These formed part of a larger programme to improve the physical condition and curriculum of all public schools in the poorest areas. A network of walkways, public escalators (to navigate the mountainous terrain) and cycle lanes were established to connect these investments, and a generous public space-making programme reclaimed streets and pavements from cars in favour of pedestrians and informal traders. The creation of a cable-car system of public transport allowed people on the steep slopes of the city, effectively ghettoised, to access the central train line and other public transport modes such as bus rapid transit systems.

On the back of reclaiming the public realm and promoting education and health, the city started to focus on precarious living conditions in the vulnerable creeks along the slopes and other under-serviced areas with a view to incrementally consolidate and formalise these (Swape, 2014). Medellín achieved many things, but in particular the city never lost sight of the importance

of enrolling local residents in discussions about the plans. All the interventions included a participatory component, as well as proactive design propositions from the development agency tasked with driving these interventions. Participatory processes were used, although scholarly opinion is divided about the depth of the engagement.

Many Brazilian cities have also used urban design disciplines to animate public participation processes and improve the nature and quality of informal settlement upgrading. While the nature of the built form and levels of design awareness may be on a completely different scale in Brazil, compared to South Africa, it is relevant to pay attention to how seriously they take good urban design in *favela* upgrading work. For example, in São

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10.   These observations are based on the experiences of one author who visited the city and various neighbourhoods in November 2011. Since then the author has had numerous exchanges with scholars such as Teddy Cruz, Alejandro Echeverri and Christian Werthmann who study the city and some of the key protagonists in government and NGOs during the 2002-2010 era. An interesting overview of this is provided in Mejia (2014), which includes an interview with the previous mayor, Fajardo.

Paulo, their approach to slum upgrading is explained by the former Municipal Secretary for Housing, Elisabete Franca (2012: 16–17):

The central points are to create basic infrastructural networks, transit systems linking the favelas to the city, recreational areas and large public facilities, besides building houses for those living in risk areas. Slum upgrading introduced a set of improvements to what the city already had and, most importantly, integrates what was once informal into the city [...] In Sao Paulo, there are more than 1500 slums and it is a huge challenge to transform them into integrated neighbourhoods ... Creating a network of successful experiences resulting from creative and serious projects by architects and urban planners is a path to universal good.

The municipality also sponsored a national architectural competition to solicit the best possible design ideas combined with a participatory pedagogy. The municipality then took all that learning and translated it into a practitioners' guidebook to underpin all public sector efforts aimed at favela upgrading. This was their attempt to mainstream a design-driven participatory approach to favela upgrading. The guidebook empowers citizens and grassroots movements to claim a certain standard of state investment and design quality. It also reinforces a culture of quality design and community participation within the municipality.

Implications for the South African context

A number of pertinent lessons emerge from these and other comparative experiences:

1. Provide the best possible quality public infrastructure for the poorest and most neglected

in the city. It is effectively a down payment on their right to the city and the possibility of enacting full citizenship.

2. Shape public infrastructure investments around the contours of local territories and people, i.e. landscape, morphologies, cultural currents, emergent practices of sociality and invention (see Werthmann, 2011).

3. Involve people from the beginning and keep them engaged and enrolled, so that ownership resides with local collectives and resonates culturally.

Build cultural, social and solidarity economies around the establishment and maintenance of public infrastructures and the various backward and forward linkages associated with slum improvement and consolidation. These linkages and economic activities represent the guts of the missing 'third system' of our economy, i.e. social and solidarity economies (Pieterse, 2013).

Invest in platforms for public deliberation, disagreements and contestation within neighbourhoods and especially across the city, as citizens engage each other locally and across class boundaries (see also Isandla Institute, 2013).

The remainder of the chapter explores how these kinds of innovations can take root and multiply in the South African context. The hope is to convince the reader that rethinking informal settlement upgrading practices is possible and can result in ways that mainstream design thinking, activism and dynamic participation of targeted beneficiaries. This requires an exploration of how design activism can be institutionalised at the neighbourhood level in informal settlements in South African cities.

INSTITUTIONALISATION OF DESIGN ACTIVISM AT COMMUNITY LEVEL

This section first discusses the preconditions for institutionalising design thinking and activism within the upgrading system. Second, in broad brushstrokes, a community development system is outlined that would lend itself to the proliferation of quality design, co-produced by citizens. The connections between participation, upgrading and design cannot be understood outside of an integrated community development system. Third, the substantive aspects of engendering spatial, budgetary and institutional literacy (the basis of community participation and empowerment) are unpacked. Finally, some concluding remarks examine the practicalities involved in mainstreaming this approach, to achieve impact at scale, and section double-up as core recommendations for policy-makers.

Preconditions

For design innovation in informal settlement upgrading to be realised, a synergistic system, which locates integrated human settlements within a larger community development process, needs to be in place or gradually emerge. This, in turn, requires political openness and institutional readiness to invest in the creation and continuous improvement of a holistic community development model, which is driven by citizen movements and is free from political party control. This is a big ask but, given the imperatives of developmental local government, an absolute requirement to ensure political and budgetary space for implementation. The third precondition is the buy-in and promotion of the system by civil society organisations, especially those operating in the relevant informal settlements and townships. Such buy-in will not be automatic and will undoubtedly require engagement and the nurturing of demand, but this aspect is beyond the scope of this chapter.

The Community Development System

The holistic community development system presented here builds on previous work (Pieterse, 2008, 2013) and seeks to address the specificities of civic capacity and life in informal settlements. The starting point is to recognise that almost every urban neighbourhood in South Africa contains civic formations. Religious institutions may be the most numerous, but many other formations exist – from cultural groups keeping choral and traditional music alive, to sporting clubs (even in the absence of viable play areas), savings associations (stokvels) and more politically charged formations such as branches of political parties, social movements, government-linked committees that extend service delivery and, of course, ward committees. These layers of associational life reflect stocks of social capital available for activation.

Unfortunately little empirical data exists on the number, efficacy and dynamics of the many service delivery 'interface structures', such as: community policing forums, parent–teacher associations, health committees, Working-for-Water-type groups, social development forums and community development workers. However, practical observations suggest that these structures tend to operate in a no-man's land of uneven recognition, limited resources and even less opportunities to grow their capabilities. As a result, they achieve limited impact and are unable to connect effectively with other organisations that share their neighbourhood space and officially demarcated areas.

Civic life in most South African townships is marked by profound fragmentation, and limited strategic capability and influence over the public decisions and regulations that routinely shape their 'defensible lifespace' (Friedmann, 1992). The result is severe planning and political dysfunction, which can only frustrate aspirations for substantive citizenship and the right to a decent standard of living as envisaged in the NDP (NPC, 2012).

Nevertheless, given the resistance history of South African society, social organisation and activism is undoubtedly in the DNA of most black communities[11] but needs to be recognised and nurtured in a systematic fashion. This would enable the tens of thousands of people engaged in collective life to be empowered to be much more effective in managing their neighbourhoods and, by extension, shaping their futures more deliberatively. The imperative is 'to build local institutions, strengthen participatory processes of development planning, deepen local democracy and unlock a new level of agency within communities' (Philip, 2013: 155). How exactly this is to be done remains obscure.

At the core of such community-level development management systems could be capacity-building platforms called Citizenship/Civic Academies (CAs) (Görgens et al., 2013; Isandla Institute, 2012; Pieterse, 2013). A CA's purpose is to create an inter-disciplinary learning context in which community activists (broadly defined) can develop their individual and collective capabilities, enabling them to understand their neighbourhoods more dynamically, prioritise appropriate interventions that can catalyse place-making dynamics, and acquire the skills to implement and manage these interventions. After explaining the elements of integrated neighbourhood development, the role of CAs is unpacked.

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11. This is equally true for most predominantly white communities that are very effective in aggregating local interests via civic bodies and specialist interest groups, typically much better funded than counterparts in poorer areas. The politics of this power differential in civil society is a topic for another occasion.

Table 5: Determinants of wellbeing at neighbourhood level

Social & economic	Access to services	Environmental	Lifestyle
■ Employment	■ Education	■ Air quality	■ Spiritual facilities
■ Social inclusion and cohesion	■ Health	■ Housing	■ Physical activity
■ Social capital	■ Basic services	■ Water quality	■ Diet and nutrition
	■ Recreational facilities	■ Sanitation services	■ Participation in collective life
	■ Transport		

Source: adapted from Barton et al. (2003)

Substance of Design Activism

This conception is inspired by the observation in the NDP of the need to become more practical in promoting a 'decent standard of living' for all citizens. According to the NDP, this demands a fundamental rethinking of human settlements, public transport access and the spatial reconfiguration of cities and towns. The constituent elements of a decent standard of living require a holistic understanding of the determinants of wellbeing, as summarised in Table 5.

As Table 5 shows, separating households from their neighbourhoods (especially in poorer areas) is difficult, as access to services is never enough to achieve general wellbeing. Economic and spiritual resources should complement material necessities, which in turn highlights the importance of lifestyle and consumption issues. More importantly, this holistic understanding introduces the importance of the *spatial character* and distribution of various drivers of neighbourhood wellbeing. A household with access to basic services that remains isolated from economic opportunities, safety, affordable public transport and ecosystem services will be incapable of finding pathways out of poverty and social dysfunction. By adopting explicit design principles (see Box 1), planning processes and institutions can connect the elements of community wellbeing with the spatial interactions required for dynamic liveability to emerge. Design thinking and its intersection with progressively realising integrated human settlements is found in this articulation of sectoral investments and their spatial coming-together in place.

Box 1: Design Principles to Inform Neighbourhood Planning and Management

- Stakeholder involvement. Viable communities depend on harnessing the potential of diversity and mixture. Most South African townships are characterised by a wide variety of social groups, age groups, recent arrivals, cultural identities, and so forth. Unless this rich diversity is recognised and harnessed, local investments will always run the risk of being undermined by those who feel ignored or excluded.

- Increasing local autonomy. It is critical that various local facilities – schools, clinics, libraries, markets, transport points, communal taps and toilets, water points, laundries, etc. are shaped and controlled by the local community. This ensures that the services are relevant to local needs and also, potentially, reduces the operational costs for municipalities. This principle demands that community activists are systematically equipped to take greater control of the governance and management of neighbourhood social and public infrastructure.

- Connectivity. This principle references the inter-dependency between a specific neighbourhood and the larger mosaic of communities that co-exist in close proximity and in the larger catchment of the neighbourhood. This principle is profoundly important because a number of critical social and public infrastructures cannot be provided within each neighbourhood. Some key facilities will service a number of neighbourhoods to ensure economies of scale and optimal administrative efficiency.

- Diversity. In formal areas this principle seeks to optimise housing and tenure types, alongside a diversity of work and service opportunities, aesthetic standards for the public realm and numerous mobility options, especially non-motorised transport networks that activate the public realm and facilitate greater safety and security. However, in typical South African neighbourhoods characterised by a hybrid formal-informal condition, it is even more important to appreciate the importance of a flexible and open approach to support and optimise a diversity of practices that allow people to access crucial opportunities within affordable parameters.

- Response to place. This principle foregrounds the importance of landscape and cultural patterns. Ecological features and dynamics very seldom appear in the analysis and description of township conditions. Indeed, some leading urban design theorists (such as Rahul Mehrorta) insist that landscape conditions should be the starting point for coming to terms with the kinetic specificities of poor neighbourhoods. Design responses have to start within the ecological limits and work their way through livelihood practices, social systems and the propensity for constant adaptation. This principle also helps to clarify the links and interdependencies with larger ecological and cultural systems on which a given neighbourhood depends for its existence and identity.

- Adaptability to the life-stage of the neighbourhood. Everything – people, households, associations, parks, buildings, wildlife habitats, economies – is in constant flux and change, as the external environment shifts and people come and go. It is vital to appreciate these dynamics and work with their energy and potentiality through: adaptable building forms, extendable and adaptable streets, repurposing potential of buildings, green spaces, brownfield sites, and ensuring the mobility and connectivity options remain open to future innovations. Thus, investments that harden edges, borders, and so on need to be avoided or undone. (Adapted from: Barton et al., 2003: 13–15).

In this analysis, it is impossible to achieve the ideal of the NDP – a decent standard of living – if citizens and their organisations are not empowered to play a leading role in shaping the investments to achieve it. However, this demands a systematic process of bringing people from diverse constituencies and interests together, exposing them to shared analytical frameworks (spatial literacy), and equipping them with the relevant skills and capabilities to translate shared analysis into intentional actions. The only mechanism that makes sense to facilitate this is a network-based CA institutional system as elaborated earlier.

Keeping the holistic community development system in mind, CAs will be the linchpins to empower citizens and organisations to connect their own efforts with what is needed and what government and other actors can bring to the table. In other words, co-production of community investments and management is unrealistic unless both citizen groups and local state actors are equipped with the necessary skills to combine community and government actions. Practically, CAs exist to equip community activists and volunteers to:

- conduct neighbourhood visioning and planning, so as to collect sectoral concerns and community assets;
- prioritise and leverage investments to operationalise the plan within clearly defined timeframes;
- maintain, improve and grow neighbourhood assets, as they come to life through the implementation of the plan; and,
- ensure vertical (upwards to ward committees or equivalent forums) and horizontal (among citizens and community-based organisations) accountability within the neighbourhood and its adjoining catchments.

This may still seem rather vague. These capabilities will be developed by engaging in social transformation via six policy fields: accessing basic services (including decent shelter), as a fulfilment of the constitutional promise of the right to dignity; an activated public realm; access to affordable and safe mobility; security of land tenure; access to employment and/or vibrant livelihood opportunities; and effective political voice through participation in community affairs and wider systems of public accountability and engagement (See Figure 15). The critical point is that these policy fields are profoundly interdependent and only make sense as a lived reality if read as a set of spatial articulations. This is exactly why spatial literacy is called for. It allows citizens, households, small enterprises and civil organisations to appreciate what the constitutive elements of a liveable neighbourhood are; what the relationships between different elements might be; and what social-political institutions are required to activate these elements, so that they can function optimally.

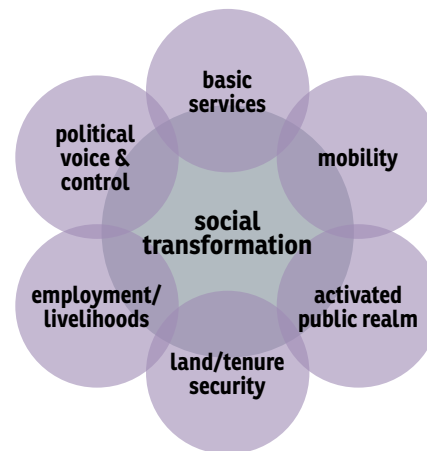Figure 15: Drivers of social transformation at local level

Figure 16 captures graphically how the various elements of a liveable neighbourhood, ideally, come together in space or territorially. Spatial literacy enables residents to agree and disagree on collective needs, with an eye to identifying the priorities that will be the best catalysts. It also informs residents about what they already have, even if the quality of a specific infrastructure or service is not optimal. It is absolutely essential that informal settlement upgrading be embedded in this kind of deliberative process (Isandla Institute, 2013). The viability and potential of in-situ upgrading depends on the quality of public, economic and educational infrastructures. In some senses, as the Latin American experience suggests, the public realm and economic activation should take precedence over shack upgrading, except for the provision of essential basic services to mitigate preventable disease and hardship (Rojas, 2010). More importantly, informal settlement upgrading is only likely to succeed if the investments in people's homes are connected to investments in mobility, safety, and access to economic opportunities. Identifying the precise calibration and sequencing of these elements must be driven by those most affected – local residents and their organisations.

Figure 16: Ideal spatial proximity of elements in a liveable neighbourhood[12]
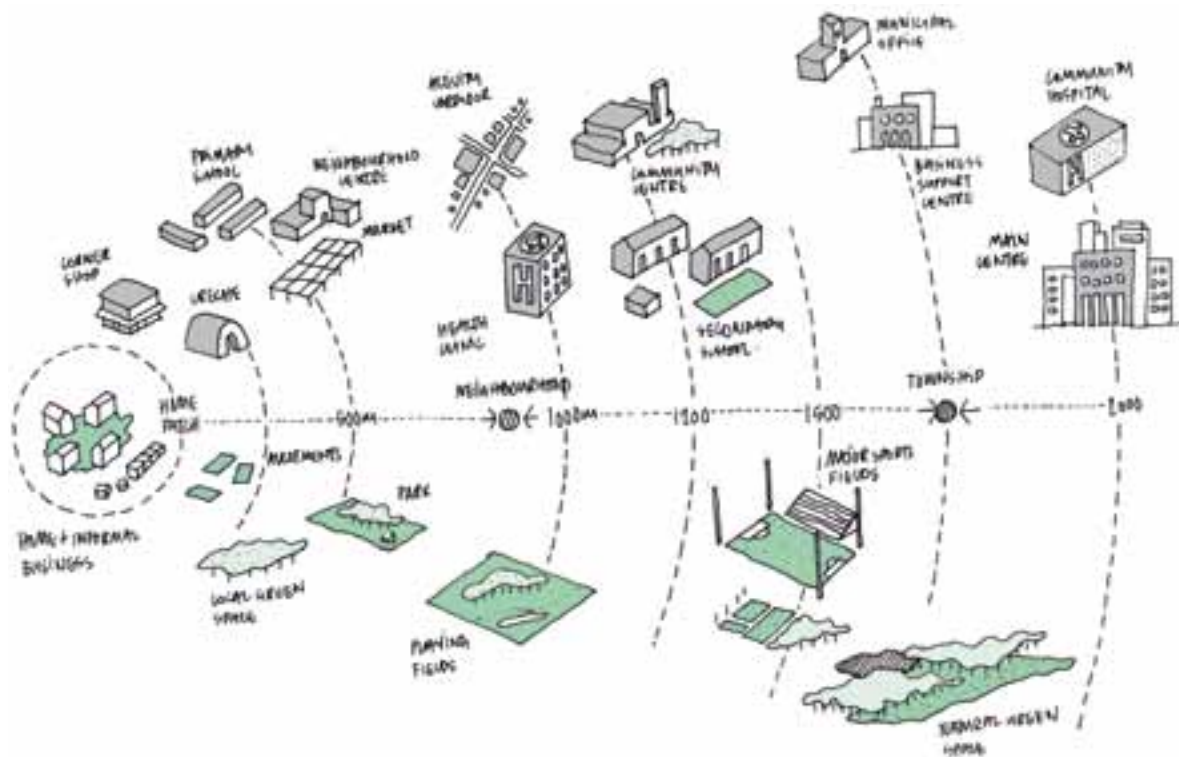
12.   Adapted from: Ranhagan and Groth (2012). Adapted by Thiresh Governder, with thanks.

Overlaying the thematic issues in Figure 15 with a spatial-distance and design logic (Figure 16) opens up a discussion about what makes a vibrant community, how investments should be sequenced and inter-related, how investments should be implemented, managed and (importantly) controlled and monitored. If such awareness and understanding were in place, communities would be highly unlikely to tolerate the extreme fragmentation and contradiction of public investments. Examples include the disconnect between public transport investments and road building, or between road building and stormwater planning and

maintenance, or between housing provision and social infrastructure investment or the building of schools and clinics. At the moment everyone laments this level of fragmentation, but no one is prepared to invest in the empowerment of citizens and grassroots organisations to insist on a different model of delivery. Without such political pressure and insistence it will not come to pass no matter how often officials and politicians recite their commitment to the development of integrated human settlements. This rests on the assumption that municipal planning processes can be recalibrated to promote and support neighbourhood scale planning and area-based investment.

Practicalities

The CA infrastructure must be publicly funded but executed at arm's length from government to avoid overt party interference and distortion. If anything, the CAs need to strengthen the critical distance between domineering and paternalistic political parties and various livelihood-oriented grassroots associations.[13] The CA is best understood as an indispensable learning laboratory anchored in three critical skillsets: spatial, budget and institutional literacy, rooted in a rights-based culture.

In order to concretise the arguments that have gone before, Table 6 sets out the generic steps in the informal settlement upgrading process in relation to how design can enrich each step. These steps can be read as a summary of recommendations for practitioners.

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13.   It is beyond the scope of this paper, but anecdotal evidence from practitioners in the know suggests that political in-fighting has undermined the initially promising Community Development Worker programme when community-level interventions show success and promise.

Table 6: Informal settlement upgrading steps and design skills

Step[14]	Design aspects
1. Land and planning: determining the nature of tenure arrangements; socioeconomic profile; informing and enrolling the affected and surrounding community; organising the community to co-produce the plan; and implementation.	Before residents in the community can participate meaningfully in this step, they need to be equipped with knowledge about what a liveable community requires. For example, they need to understand the number of households that are required to justify the building of a new school or clinic or public library. They need to be able to understand how a better functioning and organised settlement can directly improve their livelihood strategies etc. Residents also need to be equipped with the skills to conduct participatory diagnosis and planning. Thus, the CA pedagogy discussed above becomes a necessary prerequisite for residents to be effective participants in this step of informal settlement upgrading.
2. Installation of basic interim services, e.g. communal provision of water, sanitation, electricity, roads and walkways, lighting, and so on.	There are always choices to be made when it comes to the installation of interim or permanent services. Choices about the type of technology, the cost implications and, most importantly, the maintenance of these systems. It is impossible to sustain interim service arrangements without the active involvement of residents to be part of both the installation and the maintenance of these services. However, the choices that will be made must be informed by a shared understanding within the community and the local authority about the future trajectory towards full consolidation of the community. This can only be achieved by applying the design principles (as discussed earlier) to the concrete realities of the community.
3. Full and permanent installation of services, once land acquisition is complete and programmes are in place to support the livelihoods of the residents.	The same implications as in the previous step applies, but now the central challenge is to identify the long-term path for the community to move from becoming consolidated to becoming a thriving and, in some senses, normal neighbourhood with the full range of public facilities and infrastructures that allow residents to access broader urban opportunities and realise their potential. It is especially in this phase that spatial and institutional literacy come into play because a community can only pursue its shared vision and plan for its neighbourhood in partnership with the government and various other actors that can bring investment and resources into the area.

14.   These steps are based on the current provisions of the official upgrading of informal settlements as per the UISP in the Housing Code. These steps have been adapted slightly to remain consistent with the argument of the chapter, which includes deviating from the UISP conclusion that the provision of public housing is the final phase of upgrading. Rather, a greater role is envisaged for communities to engage in self-help housing initiatives.

| 4. Allocation of funds to households to improve and consolidate makeshift shacks based on agreed-upon layout and system of flows for the area. | Design literacy can truly make a contribution to assist residents with knowledge about appropriate and affordable construction methods to enhance their self-built structures. The challenges would be to ensure appropriate insulation, effective energy consumption, including the use of non-grid lighting and cooking technologies, and optimised use of shared public areas in relation to individual dwellings to enhance collective life and safety. It is also conceivable that design literacy can spur the emergence of more sophisticated local economies, possibly through social enterprises, to supply more durable and affordable materials, carpentry skills, janitorial services, and so on. |

An emerging practice in South Africa draws on design in informal settlement upgrading. The work of the Community Organisation Resources Centre (CORC) in communities, such as Langrug in Franschhoek, Sheffield Road in Cape Town and Ruimsig in Johannesburg, provides a useful example in this respect. Similarly, the Violence Prevention through Urban Upgrading project in Khayelitsha and surrounding areas is informed by a strong design sensibility. Other examples are featured in the *Informal City* exhibition referenced at the start of this chapter. However, these examples are relatively new and do not address all four phases of the upgrading process as identified above. They are also distinct projects that play out in particular communities, rather than broader programmatic responses that pursue upgrading at scale. For instance, there is not one example of a local authority that has invested in comprehensive capacity building of its officials with their counterparts in the community, as envisaged in the CA model proposed in the chapter. Nor is there an example of an informal settlement upgrading initiative conforming to the detailed design guidelines that is now the norm in São Paulo as mentioned earlier.

Nonetheless, these initiatives across a number of South African cities point to a new direction in informal settlement upgrading that places design thinking at its core.

Coda

The comprehensive schema presented here raises a host of questions. For example, why would local authorities and political parties be prepared to invest in a system that will effectively weaken their control of communities and investments? Or, how would such a system engender sufficient common purpose among a diversity of local organisations that thrive on autonomy and doing things their 'own' way? Where will the leadership come from to articulate the importance of these institutional mechanisms and to persuade people to participate? On a more practical level, how much will this edifice cost? Does it not simply create another layer of bureaucratic delays undermining the possibility of service delivery? How would relatively autonomous community platforms engage with formal state structures like ward committees, IDP forums, sectoral planning processes

and the like? And how do neighbourhood plans relate to ward level and large-scale planning? Ultimately, where does control actually reside?

We cannot pretend to have well-rounded answers to these questions.[14] Yet, we are convinced that the importance of the larger argument remains. Informal settlement upgrading processes can be greatly improved if they are embedded in robust community-driven planning and management processes. The only way to establish true co-production between residents, local authorities and the private sector is if they are part of the process. Furthermore, informal settlement upgrading efforts that have been subjected to rigorous design thinking can in fact unlock a host of developmental benefits, which is the best hope of achieving a dignified standard of living for the urban poor. Since this chapter is the beginning of a much longer research and learning process, we hope to become better equipped to deal with the many uncertainties that remain.

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Research Studies

This section highlights some innovative research interventions aimed at providing further insights and proposed responses to give effect to the broader human settlements mandate in South African cities.

PILOTING SUSTAINABLE HUMAN SETTLEMENTS IN A LOCALISED ECONOMY

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Introduction

The Breaking New Ground (BNG) policy framework defines sustainable human settlements (SHS) as (DoH, 2004: 11):

> well-managed entities in which economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity.

This definition implies that the sustainability of both housing construction and service provision are critical. However, making the shift in practice, from providing houses to developing sustainable settlements, has proven difficult. Most housing developments that use alternative building technology (and in some cases provide renewable energy) have been targeted at middle to high-income owners in 'eco-estates' or have been established in traditional rural villages. Of the approximately 2.9-million low-cost housing units delivered between 1994 and 2010, only 17 000 were constructed using innovative systems

and alternative technologies[1]. In urban areas, low-income housing projects that have used alternative building technologies have not integrated housing provision with service provision or included a link with the livelihoods of the residents.

The absence of successful examples of sustainable human settlements in low-cost housing areas in South Africa is why the Sustainable Settlement Pilot Project (SSPP) was initiated by the Development Studies Department at the Nelson Mandela Metropolitan University (NMMU), in partnership with Eastern Cape Department of Human Settlements (DHS).

The SSPP is an integrated model combining alternative construction technologies and the local provision of services and housing, while providing the economic basis for sustainable livelihoods within a low-cost housing development. This chapter explores the progress of the SSPP to date. As the project is still in progress, other initiatives that use alternative technologies are analysed and lessons drawn for the continuation and ultimate success of the SSPP.

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1. Email correspondence with Ephraim Phalafala, Deputy Director: Department of Science and Technology 26 March 2014.

SSPP AT SEAVIEW

The pilot site involves two informal settlements: Zweledinga and New Rest, in Seaview, in Ward 40 on the urban periphery of the Nelson Mandela Bay Metropole. The settlements have a combined population of approximately 350 households. These settlements have long been promised 'proper housing and services', but conventional development has been constrained by the sensitive environment of this peri-urban coastal area. Following a request from the Nelson Mandela Bay Municipality, the site was identified as ideal for the piloting of a truly sustainable settlement in a low-income residential area. The objectives of the study were:[2]

- to conduct a baseline study in the two settlements,
- to research and test appropriate technology for housing and service provision,
- to compile a comprehensive plan for the in-situ development of the two settlements.

The baseline study was implemented between September 2012 and May 2013 and involved a comprehensive programme to inform the community and to demonstrate various technologies related to an integrated sustainable human settlement. A Community Research Team (CRT) was established and a survey for establishing and prioritising the needs of all residents was drawn up.

The survey found that the housing and services needs of residents could be met without damage to the environment, but only if alternative technology were used in place of conventional bulk service provision. The findings also suggested that residents could potentially obtain sustainable livelihoods from constructing and managing these services.

At the beginning of the research period, the residents of Zweledinga and New Rest were sceptical about the use of alternative building materials and service provision, referring to these alternatives as 'backward technologies that are being tested in townships'. Therefore, the SSPP organised various field trips and workshops for the CRT. Issues covered included the local production of services, such as water, energy and sanitation, and an introduction to permaculture. The CRT then transmitted the newly acquired information to their communities at a series of workshops. When renewable energy sources were discussed at the participatory workshops, Seaview residents took a resolution to set up a demonstration cluster of houses around common infrastructure for the purpose of gathering data and testing the various technologies relating to alternative building materials and locally produced services.

Testing of alternative building material

In September 2013, the testing of alternative building material (the second objective of the study) began with the renovation of the Zweledinga community hall. Following the community's request, sandbag construction technology would be used to replace two corrugated iron walls and to extend the building slightly.

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2.   Janet Cherry, 'Sustainable Settlement Pilot Project: Research Proposal', March 2012.

Setting up of a frame on the foundation – training day Zweledinga 17 September 2013

A local community team was trained[3] in this specific building technology, thereby creating temporary employment within the community. During the planning stage, the community elected foremen for the different stages of the construction. The foremen organised their own team of labourers and equipment, defined working conditions and disbursed the weekly wages to their respective team members.

The foremen visited an example of a sandbag house and held detailed discussions about the construction techniques. Plans were made, second-hand windows and doors were bought locally, and frames were constructed

using locally harvested blue gum sticks. A special bench was constructed in the hall for the manufacture of the frames. All materials for the construction (except the bags) were obtained locally.

On 17 September, the training, dismantling and construction of part of the building took place. The renovation of the hall took three weeks to complete, and work included plastering with two coats (one of cob and one of a lime/sand mix) and painting.

Feedback from the community members was that they would like to see more buildings constructed with other alternative materials before taking a decision about their own houses. As a result, the SSPP submitted a proposal for constructing a demonstration cluster of six units, made out of various materials, to the Nelson Mandela Bay Municipality (NMBM).

Cluster proposal

The Nelson Mandela Bay Municipality (NMBM) proposed a period of at least nine months to test the operation and maintenance of such facilities, ascertain the level of people's involvement in the latter, and establish a comparative costing for the operation and maintenance of bulk services.

The municipal Human Settlements sub-directorate produced a layout plan for a demonstration cluster of six housing units constructed of various recycled or local materials around a bio-digester on municipal-owned

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3.   The teams were trained by Susan Botha, who had experience in the construction of a two-story sand bag house near Port Elizabeth and worked under the supervision of PL Lemercier of the Renewable Energy Centre.

land. This indicated a willingness on the part of local government to consider alternatives to the conventional RDP settlement design of rows of houses along bulk services infrastructure.[4]

The SSPP then produced a detailed demonstration cluster proposal for New Rest on the municipal land.

The various municipal service sub-directorates (water, sanitation, energy and waste) agreed to the proposal, which was also approved by the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).

Figure 17: Schematic cluster proposal made to DEDEAT
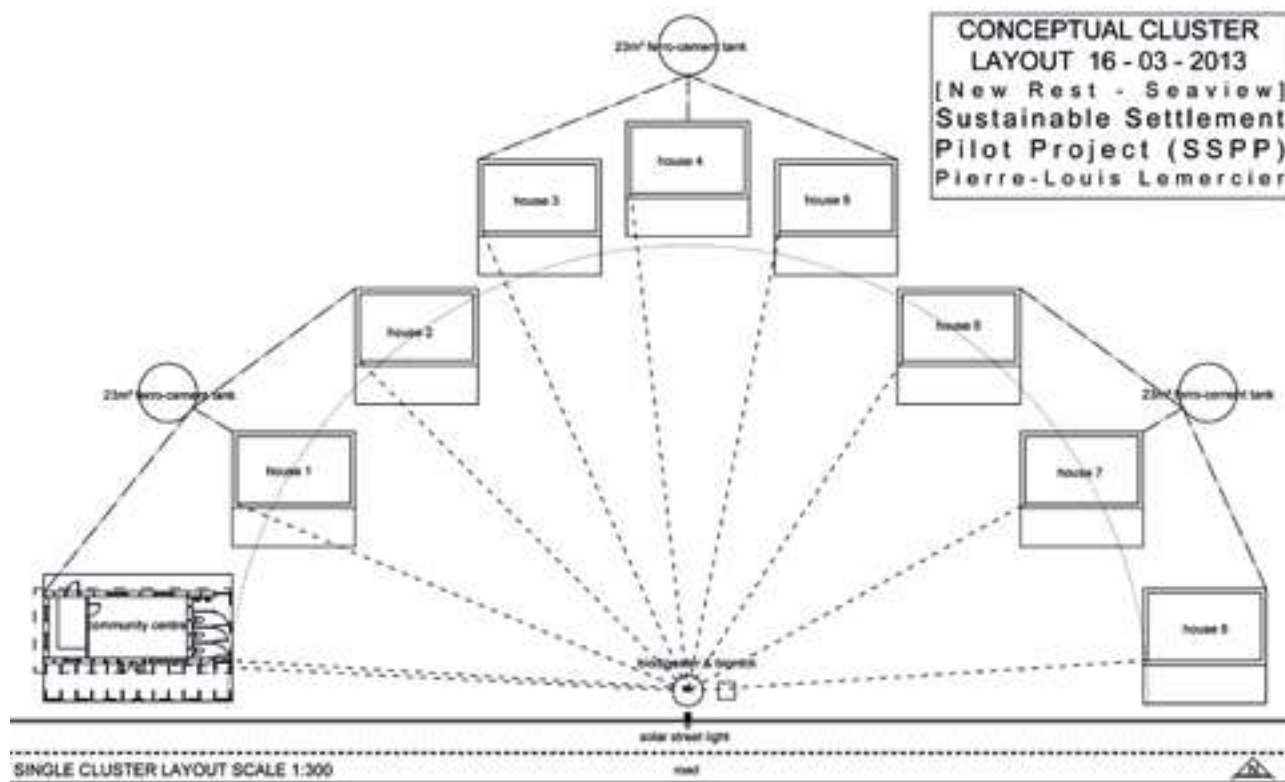
4. However, the municipality recognises that it is not equipped at present to research alternative building materials and alternatives to bulk service infrastructure and that it needs a stronger planning unit, which could coordinate and lead the various municipal sub-directorates in order to achieve an integrated approach to sustainable human settlement development.

On 4 March 2014, the project findings and the demo cluster proposal were officially presented to the NMBM Portfolio Committee for Human Settlements and were well received. The municipality has since initiated a discussion with the provincial DHS to define the roles and responsibilities related to the construction of the demonstration cluster in Seaview.

Alternative service technologies

To date, the SSPP has only piloted the use of solar PV panels for lighting and 'Wind Master' turbines for ventilating the community halls in Zweledinga and New Rest. However, alternatives for energy, sanitation and water services have been explored. Members of the CRT have been on field visits to learn about the operation of bio-digesters at Fort Cox Agricultural College, Melani Village and the University of Fort Hare (Institute of Technology). As yet no example has been found of a bio-digester that produces energy (gas) from human waste, for cooking within a residential settlement. Alternatives to water-borne sewerage that have been studied include compost toilets, ventilated improved pit latrines and minimum-flush toilets linked to a bio-digester. With regard to water capture and storage, the construction of ferro-cement tanks to store rainwater captured off the roofs of houses has been looked into, but not yet implemented in the demonstration. The NMB Municipality has initiated, in the same Seaview settlements, a programme for the installation of solar street lights, which is not yet finalised.

While awaiting municipal permission to continue the pilot, the SSPP undertook a study of similar projects that have been conducted across South Africa by the Council for Scientific and Industrial Research (CSIR), the DHS and the Department of Science and Technology (DST).

The use of alternative technologies in human settlements

According to Wikipedia, alternative technology refers 'to technologies that are more environmentally friendly than the functionally equivalent technologies dominant in current practice'.

Using cost-effective alternative technologies would improve housing delivery, either by enabling the same number of houses to be built at a lower cost, or improving the quality or size of houses for the same price. This is recognised in some government departmental guidelines. For example, the provincial Department of Human Settlements (DHS) in KwaZulu-Natal (KZN) has published policy guidelines that clearly support the use of alternative technologies (KZN DHS, 2012: 4):

> Technological innovation creates added value by improving the product, and sometimes cut the costs, thus allowing for a greater distribution of the product on the market. They also have the potential to significantly support and help to realize the aims and objectives of the department by fast tracking housing delivery in the province"

However, constraints remain because of the need for certification which ensures quality control. For example, the KZN guidelines specify that 'those with the necessary

certification, i.e. NHBRC registration, SABS approval, agreement certificate, CIDB registration can approach the Department' (KZN DHS, 2012: 8). This requirement is supported by the national DHS, which notes that 'the National Housing Policy allows for any technologies on condition that it complies with the NBR, are supported by a MANTAG certification, and are accepted by the NHBRC'.[5] These regulations favour large building contractors and impose constraints on local small-scale service providers.

It should be noted that these guidelines refer solely to alternative building technology, and do not mention technological innovations for service provision.

Alternative building technologies

Alternative building technologies refer to the use of sustainable building materials, i.e. materials that are more environmentally friendly than conventional building materials. Some of the alternative building technologies, which have been tested in various projects in South Africa, include sandbag housing, prefabricated panels, Aruba blocks of moulded plastic, and foam within a wire form. The acceptance of these alternatives in low-income housing developments has been varied, with communities rejecting some alternatives as being inferior to brick or cement block houses.

According to the DHS, the general perception among communities is that alternative technologies will not deliver quality products. Furthermore, 'very bad experiences in the past with alternative technology dwellings that have failed' and having to rebuild the houses does not help to change the perception.[6]

A pilot project in the Eastern Cape, which was aimed at speeding up housing delivery, proposed building 465 houses using prefabricated slabs, or ABT panels (Tshivhasa, 2013). However, the Ndevana community, where the project was piloted, rejected the technology at the procurement stage. The reasons given for rejecting the prefab houses included (Tshivhasa, 2013: 8):

- Unlike bricks or blocks, prefab panels are not a flexible material. Therefore, if the doors or window frames need changing, the wall has to be cut with a grinder, which causes vibrations and cracks in the other walls.
- The ABT panels are difficult to penetrate with nails, for the purpose of mounting curtain rails or pictures.
- Cracks appeared in ABT wall panels even before they were assembled and also as a result of vibrations from tools.
- The width of the wall is 'too thin', and the material is not good at regulating heat. The slabs may be more useful for fencing or storage than for housing.
- The ABT houses were not regarded as a legacy to the next generations.

Tshivhasa concluded that 'lack of knowledge and understanding of alternative building technologies (ABT) by the Ndevana community' led to the rejection of the alternative building technology.

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5.   Louis van der Walt, Director: Policy Development and Review, National DoHS, email, 2 April 2014.
6.   Louis Van der Walt, Director: Policy Development and Review, National DHS, email, 2 April 2014.

In other projects, alternative building technologies, such as sandbag or foam and wire housing, have also been rejected, mainly because the technology was not durable and so after a certain time walls subsided and developed cracks or damp problems. Examples in Nelson Mandela Bay include 'Sakkiesdorp', a low-income housing development built with sandbags and the Kuyga settlement where wire and foam was used to build houses. As with the houses in the Eastern Cape, the problem did not lie with the technology itself, but with inferior construction. However, residents perceived the technology or building material as being at fault.

An impressive example of sustainable building technology, which cannot be faulted for quality, is the 'House Rhino', a house recently completed at the Crossroads Farm Village outside Port Elizabeth. However, the problem here is that of cost. The four-bedroom, three-bathroom, 450m^2 house, which is built on an 1100 m^2 stand, has cost R8.5-million thus far.[7] The house was built with Aruba blocks, which offer 'a threefold improvement in insulation value versus traditional brick'.[8] Given the cost, this technology does not appear to be suitable for low-cost housing developments. Moreover, the Aruba blocks are not manufactured locally.

Alternative service provision

Alternative service provision refers to the sustainable and integrated provision of water and sanitation, energy for lighting and cooking, as well as street lighting and waste management. The CSIR, DST and some municipalities have piloted various projects using alternative service provision.

The DST has implemented ASWSD II (Accelerating Sustainable Water Service Delivery) in Limpopo, Mpumalanga and Eastern Cape,[9] the CSIR has piloted alternative sanitation technology in Pietermaritzburg, while the eThekwini Municipality is exploring the conversion of human waste into energy.

A number of renewable energy projects have been rolled out to human settlements. Most of the projects initiated by the CSIR are demonstration units in their own complex (NMBM) or within a Science Centre (Cofimvaba). Others are within a community in Western Cape (Kleinmond) and a proposed pilot in a rural area in KwaZulu-Natal, where the development of 10 family units will be off the Eskom grid. In these two cases, the CSIR supplied equipment for lighting and some plugs for small appliances but not for cooking, which is the most pressing and expensive energy need for low-income households. Findings from the projects included the expectation of communities that the services would be provided and maintained free of charge by the municipality. The CSIR noted that residents 'expect the local authorities to come and fix the photovoltaic system if it is faulty'. For municipalities, this expectation would increase their workload significantly, especially when compared to a 'simple Eskom connection in each housing unit'.[10]

The main reason for alternative technologies not being widely adopted is that they are still too costly and

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7.   http://www.nmbbusinesschamber.co.za/blog/posts/rhino-group-breaks-ground-of-green-technology
8.   Ibid.
9.   Ephraim Phalafala email, 26 March 2014.
10.   Telephone interview with Mr Llewellyn Van Wyk, CSIR, 24 March 2014.

cumbersome. For example, an alternative source to Eskom that could produce enough energy for lighting and cooking would require a solar panel system (for the lighting) and a gas arrangement (for the cooking). Another reason is that energy from alternative technologies is not considered as reliable as Eskom-supplied energy. Some communities found solar energy from PV panels inconstant and unreliable due to cloud cover, while some isolated rural areas switched from renewable energy to Eskom supply as soon as they became part of the grid.[11]

LESSONS LEARNED

Various initiatives that use alternative technologies were analysed to provide lessons for the SSPP, as an integrated model that combines alternative construction technologies and the local provision of services and housing, while providing the economic basis for sustainable livelihoods within a low-cost human settlement.

In general, alternative building technologies have not been adequately integrated and accepted in low-cost housing developments in South Africa. In some cases this is because the technologies were not adequate or correctly used or satisfactorily introduced to the beneficiaries. Adding to the problem is the different terminologies used by the various entities involved, e.g. innovative building technologies, alternative building material, alternative building methods. The lack of differentiation makes planning and implementation most difficult.

Despite the shift in policy from building houses to developing sustainable human settlements, the commitment of government to the use of alternative technologies is uncertain. The national DHS does not prescribe the use of alternative technologies in low-cost housing projects. One of the reasons for this is that the DHS is not 'the providers of funding for bulk services and so has very little control over what technology will be applicable in this regard'.[12] In addition, generally most government institutions do not appear to have the flexibility, budget and capacity to implement, manage and maintain innovative technologies. Alternative energy supply creates extra work for municipalities, as communities expect them to maintain and repair the installations, especially when compared to Eskom connections.

Nevertheless, so far most alternative methods (including the integration of renewable energy for providing solar street lights in the Seaview settlement) have been implemented in a fairly 'top-down' manner. This has had implications for community perception and acceptance. The social acceptance and related education of/buy-in from communities are limited. While some concerns are legitimate (e.g. cloud cover makes solar energy less reliable than Eskom-supplied energy), in general communities are not educated and informed of the pros and cons of alternative technologies, including the long-term benefits related to sustainability, low operational costs and local employment opportunities. The perception persists among certain communities that alternative technologies are a 'cheap' way of providing services and will lower their living standards.

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11. Telephone interview with Mr Llewellyn Van Wyk, CSIR, 24 March 2014.
12. Louis Van der Walt, Director: Policy Development and Review, National DoHS, email, 2 April 2014.

Yet many of the alternative building technologies that function well are also expensive and thus unsuitable for low-cost housing developments. They are also often imported and so do not contribute to creating local livelihoods through local procurement or manufacture. At the same time, the present high standards, through NHBRC and CIDB registration, SABS approval or agreement certificate, are not flexible enough for testing and implementing sustainable technologies in the human settlement sector. As a result, there is limited testing and knowledge of alternative technologies used in an integrated manner to provide the required services.

According to the DST[13], the uptake of alternative technologies is very slow for various reasons:

- Beneficiaries are not familiar with (or educated about) the technologies, and regard some alternative technologies as lowering their living standards or as a 'cheap' way of providing services.
- Coordination is poor between the various research entities and projects organised in the field.
- The local production of materials for the technologies is limited, which means increased costs because materials have to be imported and transported.
- Builders need skills training in alternative technologies, which is costly and time-consuming.
- Currently no given methods exist for assessing the impact of alternative technology within the society, as different communities have different needs and requirements.
- The technologies are being used in isolation and are therefore not having the intended impact.

Recommendations

The integration of sustainable alternative technologies in human settlements is complex and requires the various stakeholders to shift their perceptive. Both municipalities and communities, in particular, need to understand and 'buy-in' to alternative technologies and their contribution to creating sustainable human settlements.

A fundamental change is needed in planning and procurement processes at local government level. The processes must be flexible enough to respond to local needs and allow for community participation in providing services. Regular consultation with the local communities has to be centre-stage, whether in the case of consultants conducting Environmental Impact Assessments for municipalities or municipal officials responsible for housing beneficiary.

Municipalities need to have strong planning units to coordinate SHS projects and research units to investigate and demonstrate renewables as an alternative to bulk

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13.   Ephraim Phalafala, Deputy Director: Human Settlements Directorate, Department of Science and Technology, email, 26/ March 2014.

services, as well as to determine what the roles and responsibilities of the municipality and the beneficiaries are in relation to the operation and maintenance of these services.

The recommendations provided below are addressed in the first instance to the Nelson Mandela Bay Municipality, as they relate to the implementation of the SSPP demonstration cluster, and have implications for the future development of sustainable human settlements in the region. They are also addressed to the national DHS, as many improvements in the sector will depend on clarification and guidelines made at this level. Clear guidelines would help municipalities set an adequate framework for the SSPP implementation and should consider:

1. How best to structure further research and development, including longer-term studies that could systematically document and record lessons learned from the many scattered research projects in the sector, both in South Africa and in other countries.

2. An agreed definition of the word 'sustainable' in relation to a human settlement (including buildings, infrastructure and services). The concept of SHS needs to be defined in terms of the prerequisites of a bottom-up, environmentally sound and integrated approach for improving local livelihoods. An agreed definition of sustainability will help keep all related activities aligned and integrated. For instance, defining a sustainable development as one that integrates into the

environment would help architects to design a dwelling that is oriented in such a way as to harvest maximum sun energy.

3. The importance of procuring both building materials and services locally, as far as possible, in order to achieve a sustainable settlement through the creation of local employment and the related improvement of local livelihoods.

4. The acceptance of new and complex technologies, which would require careful programmes that combine 'bottom-up' participatory consultation with education and information in order to secure the necessary 'buy-in' from the communities concerned, as well as from the municipal officials.

5. Recommendations that new innovative hubs or demonstration centres are handed over to certain beneficiaries in order to secure feedback data about the operation and maintenance of the new facilities in a 'real' context.

6. A clear definition of the respective roles and responsibilities of the municipality and the community in relation to the operation and maintenance of the new infrastructure. This should strike a balance between minimising municipal work and maximising sustainable community employment opportunities.

7. Possible research partnerships with universities, which would have the added benefit of stimulating interaction between the theoretical (university) and the practical (townships).

8. Relevant building standards and testing related to innovative technologies.

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MANAGED LAND SETTLEMENT:
AN INCREMENTAL APPROACH TO HUMAN SETTLEMENTS

Ronald Eglin[1]

South Africa faces twin housing and settlement challenges. The first is that the supply of housing is not keeping pace with the demand. In 1994 the housing backlog was estimated at 1.5 million houses (excluding inadequate site, services and hostels) and in 2012 at 2.1 million houses, despite government building up to 3.2 million houses between 1994 and 2012 (NPC, 2012; Shisaka Development Management Services, 2011). The second is that the Reconstruction and Development Programme (RDP) approach, promoted by the new government in 1994, resulted in mono-functional residential neighbourhoods (NPC, 2012). Under the RDP approach, fully packaged houses were built on individually owned serviced sites, as part of planned neighbourhoods.

Recognising that '[u]nwittingly, post-apartheid housing policy had reinforced apartheid geography' (NPC 2012: 268), in 2004, government introduced the Breaking New Ground (BNG) policy, with the intention of shifting from simply delivering houses to delivering sustainable human settlements (SHS). However, a decade later, South Africa is still searching for ways to implement BNG and break the apartheid spatial legacy.

This paper proposes that the Managed Land Settlement (MLS) approach to housing and settlement development provides a mechanism for addressing the housing backlog and the shift from housing to human settlements. Afesis-corplan, Urban LandMark, Project Preparation Trust and others have argued that MLS-type approaches provide an opportunity for the country to get ahead of the demand for housing (Cirolia et al., forthcoming; Eglin, 2008: Eglin, 2009; Eglin, n.d; Misslehorn, n.d). Smit (2010) makes the point that MLS's appeal should be on using available resources to 'get ahead of the game', by assembling land and dealing with establishment procedures well ahead of settlement demand.

This paper argues that, compared to RDP approaches that emphasise the provision of top structures, MLS-type approaches lead to more integrated environments and SHS, as defined by BNG. An SHS is understood to be one that provides not only for a person's shelter needs but also for their other social (education, health, etc.), economic (employment) and cultural (sense of belonging) needs. It is an environment that more closely addresses and reflects the needs and aspirations of its inhabitants (DoH, 2004: 11).

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1.   Ronald Eglin is a Senior Projects Co-ordinator at Afesis-corplan. Afesis-corplan have been exploring and promoting incremental approaches to settlement development since 2008.

Managed Land Settlement

A version of incremental settlement – the in-situ upgrading of informal settlements – has received much attention recently, with the establishment of the Upgrading of Informal Settlement Programme (UISP) within the National Housing Code of 2009 and the work of the National Upgrading Support Programme (NUSP) and the Housing Development Agency (HDA). In-situ informal settlement upgrading is where people often illegally settle on land; the government then agrees that these people can stay on this land and, over time, the area is incrementally upgraded. In contrast, much less attention has been given to the MLS approach to incremental settlement, which was conceptualised by Afresis-corplan as one side of a two-sided incremental settlement approach to development.[2] With MLS, people are allowed to settle on planned greenfield land in an organised manner. The settlement is then incrementally upgraded over time.

From a MLS perspective, the incremental settlement approach can be divided into four phases.

- Preparation: A piece of land is identified, and government agrees that people are able to settle on this land in a planned and organised manner.
- Basic development: Government provides residents with some form of basic tenure recognition and with access to basic services. Basic facilities, such as roof-on-pole community halls and parking spaces for mobile clinics, can also be provided.
- Development support: Households are helped to improve their own living environments, through (for example) housing support services and the establishment of savings and loans schemes. Development support also includes helping small businesses through training and access to affordable finance; and social, cultural and special needs groups such as women's groups, sports clubs, early childhood development centres, and people infected and affected by HIV/Aids. At the settlement level, upgrading steering committees are established to monitor and steer the upgrading process.

- Consolidation: At a later stage, government comes back and provides additional support, such as upgrading tenure (e.g. from certificates that recognise occupation to individual title deeds) and services (e.g. from communal ablution facilities to water and sanitation per house). During this consolidation phase, top-structure funding is made available to households that qualify for housing subsidies. The housing subsidy is used to supplement what the household has already built for itself. Consolidation also includes the upgrading of community facilities, e.g. a mobile clinic becomes a permanent clinic, a community hall becomes a multi-purpose centre and a containerised construction site office becomes a business advice centre.

Thereafter, development support continues: households improve and maintain their houses and plots, and government continues to maintain and improve the neighbourhood.

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2.   The other side is in-situ upgrading of informal settlements (i.e. illegally occupied land is formalised and upgraded over time). See www.incrementalsettlement.org.za for more on incremental settlement and MLS.

MLS-like approaches enable settlement areas to be planned and implemented in a holistic and integrated manner. At each phase of the MLS process, communities, government departments and the private sector are able to plan for and develop houses, schools, clinics, business advice offices, and other social and economic facilities and services.

Such integrated planning is not necessarily unique to MLS-type approaches. Some RDP approaches take integrated planning into account when planning and developing mixed income and mixed land use developments, such as Cosmo City in Gauteng and the N2 Gateway Project in Cape Town.

However, what makes MLS unique – and creates more integrated and sustainable human settlements – is that MLS settlements are incrementally developed by a range of stakeholders and role players over a longer period of time.

In RDP housing projects, planning is a once-off event at the start of the project, and then it is all systems go to implement the project. Often only one developer is responsible for building the services and houses, which (for those doing the planning) can make it very difficult to involve everyone in the planning process and get everything right from the start. In contrast, incremental approaches allow for some initial planning and the provision of basic products at the beginning of the development process. Role players involved in the process are thus able to reflect and adjust plans in subsequent phases. The settlement programme committee, which builds on the work of the initial planning committee,

provides an institutional platform for this steering and adjustment, while later upgrading interventions build on experiences of past interventions.

The key to creating more SHS is to allow multi-functionality and variety to emerge over time. Physical spaces must be set aside for schools, clinics, shops and industries, and the land-use management system must make it possible for residential (and other) land to be easily converted into other land uses. As stated, the MLS process provides opportunities for reflection and refinement, so successive interventions build on past interventions, with the settlement becoming more 'human' over time.

Lessons from past MLS-type approaches

Most greenfield housing developments have followed an RDP-type approach, with limited attention paid to MLS-type approaches. However, research by Afesis-corplan and Urban LandMark found that MLS-like approaches have been tried, but none of them lasted more than 10 years (NPM Geomatics, 2010).

- From about 1994 to 2013, the Gauteng Department of Housing implemented the Incremental Housing Cluster, which included: the Mayibuye Programme that released serviced sites for settlement purposes; the Essential Services Programme that provided upgraded services to Mayibuye sites; and the People's Housing Process, which was the programme through which top structures were provided to beneficiaries of the Essential Services Programme.

- In 1990s, the 4-peg policy was implemented in Port Elizabeth and allowed people to be quickly settled on rudimentary serviced sites, while they waited for the area to be further developed.
- From about 1999 to 2005, the Cape Metropolitan Administration implemented the Accelerated Managed Land Settlement Programme (AMLSP), in response to emergency housing needs within the area.
- As of 2010, the City of Cape Town has undertaken the Bardale Housing Project, which uses the existing Emergency Housing Programme and the UISP to implement an incremental solution to emergency housing and informal settlement upgrading in Cape Town.

The afore-mentioned research did not include another large-scale, MLS-like programme: the site-and-service scheme implemented by the Independent Development Trust (IDT) in the early 1990s, just before the 1994 elections. This scheme did not include all phases of the MLS approach and focused mainly on the provision of a fully serviced site and individual title deeds. A consolidation programme, linked to this IDT site and service programme, attempted to establish a development support element but did not last very long, as the new government's RDP housing approach took over these IDT projects – in 1994 the new government introduced the consolidation subsidy that allowed top structures to be added to the original IDT sites.

A number of reasons can explain the lack of longevity of these MLS-like programmes:

- **Change in legislation**. For example, the Gauteng Incremental Housing cluster was established to fast-track settlement development in response to the high level of urbanisation and people squatting in unsafe areas. However, there was no longer any motivation to continue the programme with the introduction of the National Environmental Management Act No. 107 of 1998, which prevented these projects from being fast tracked.
- **Changes in available finance**. For example, the removal of the bridging finance facility (made possible by regional service council levies) resulted in the demise of the AMLSP in Cape Town, while in Port Elizabeth the discontinuation of funding through a cooperation agreement with the Swedish Government made continuation of the 4-peg policy difficult.
- **Changes in officials.** MLS projects went against the usual way government officials dealt with housing development: most officials were not used to dealing with long-term, multi-departmental approaches, such as the Incremental Housing Cluster programme that was run from three different directorates within the Gauteng Department of Housing. Therefore, the momentum of these programmes reduced when officials who had been championing the programmes left the municipalities. This happened with the Incremental Housing Cluster in Gauteng and the 4-peg policy in Port Elizabeth.
- **Changes in political leadership**. For example, in the Western Cape and Cape Town, changes in political leadership between ANC and DA made it politically difficult for one political party to continue to push through the implementation of the AMLSP.

One of the main reasons for the lack of longevity of these MLS-like programmes was the **lack of political will** to see them through. For example, in Gauteng politicians had difficulty promoting a type of settlement development that provided a far more rudimentary product in the beginning than that of conventional RDP-type housing projects being developed on neighbouring land. For many municipalities, the MLS-type approach was seen as a backward step from the fully packaged RDP house being promised by the government.

Nevertheless, although many of these programmes have been discontinued, elements remain. For example, the Ekhuruleni Metropolitan Municipality is implementing an Essential Services Programme, which is not dissimilar to that of the Incremental Housing Cluster. The Nelson Mandela Metropolitan Municipality is also incorporating many of the principles of the 4-peg policy into its emergency housing programme. Furthermore, the Bardale project shows how MLS-like approaches are possible using the Emergency Housing Programme and the UISP.

Making MLS Work

Accepting that MLS will mean more people get quicker access to land and settlement opportunities than waiting for an RDP house and will lead to more integrated and sustainable human settlements, the question remains: what is needed to make MLS work?

This chapter suggests that the key missing ingredient, which led to previous MLS-type approaches failing to become mainstream approaches, was the **lack of political will** to see these programmes through. Political will is defined as 'the commitment of political leaders and bureaucrats to undertake action' (Malena, 2009: 19) or the combination of three factors: opinion plus intensity plus salience/importance (Charney, 2009).

Politicians need to appreciate the benefits of the MLS approach (compared to the RDP approach) in order to be compelled to act in support of MLS. They need to be convinced of the superiority of MLS approaches and see that communities are also supporting MLS; only then will they be inclined to act on their convictions.

Through the work of organisations such as the HDA, as well as the NUSP, politicians are being exposed to the advantages of in-situ informal settlement upgrading compared to more conventional RDP type approaches. What is needed now is to build political will for the MLS approach to incremental settlement.

With political will, most of the challenges highlighted above can be more easily overcome. The MLS approach also builds on government's commitment to achieve 100% coverage of access to water and sanitation as per Delivery Agreement Outcome 9 on Local Government (The Presidency, 2010a, 2012b). The new Spatial Planning and Land Use Management Act (SPLUMA No. 16 of 2013 refers to the establishment of 'incremental upgrading of informal areas', while the UISP already makes provision for MLS-type approaches: 'The programme is first and foremost applicable to the in-situ upgrading of informal settlements. It will also apply in cases where communities are to be relocated for a variety of reasons including dedensification of settlements. The provisions of this

programme are equally applicable to both the upgraded settlement and the relocation site.' (DHS, 2009: 13).

To get incremental settlements in greenfield sites going, the MLS approach needs to become mainstream. Therefore, the first thing to do is to give this approach a name (e.g. Managed Land Settlement or MLS), as giving something a name makes it easier to discuss and more likely to be taken seriously.

MLS also needs to be measured. Just as the UISP received a big boost when Delivery Agreement Outcome 8 set a target to upgrade 400 000 households in well-located informal settlements by 2014, national government (and even municipalities) should also set a similar target for the provision of basic services and tenure within MLS areas, as part of an on-going participatory upgrading process. This target should include establishing and operating a settlement-level upgrading steering committee, as involving communities and forming partnerships are fundamental to human settlement creation.

Once the name and indicators are in place, government's next step would be to encourage experimentation in implementing MLS-like approaches. Government needs to open up opportunities for itself, communities, civil society and the private sector to test various MLS-like approaches, to learn lessons from and build future approaches based on these experiences.

The NUSP approach for supporting municipalities to rollout different approaches to informal settlement upgrading around the country should be replicated, with NUSP also supporting more MLS-like approaches.

Conclusion

The MLS approach to housing and settlement development is a way of eliminating the housing backlog and enabling the shift from housing to human settlements. Unlike the RDP approach that emphasises the provision of top structures, MLS-type approaches can lead to more integrated environments and SHS. The key to creating more SHS is to allow multi-functionality and variety to emerge over time. The MLS process provides opportunities for reflection and refinement, so successive interventions learn lessons from and build on past interventions.

Although most housing developments have taken the RDP approach, some programmes have adopted a MLS type of approach. However, most of these MLS-type programmes have not lasted more than 10 years for a number of reasons, including changes in legislation, finances available and officials driving the projects. The main reason for MLS-type programmes not translating into the mainstream has been a lack of political will. However, recent government initiatives, such as the SPLUMA and the UISP, assist MLS-type approaches and are supported by politicians.

With a recognised name and measurable targets in place, MLS can become mainstream and more widely accepted. MLS can provide the space for politicians and communities to have a conversation, about how to work together to create SHS, and for politicians to be able to lay claim to success and show communities what they have achieved.

MLS is a mechanism that can enable South Africa to get ahead of the game – to provide land and basic services in advance of need and to create more sustainable human settlements and neighbourhoods that people are proud to call home.

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MOVING FROM HOUSING TO HUMAN SETTLEMENTS:
OPPORTUNITIES FOR CITIES

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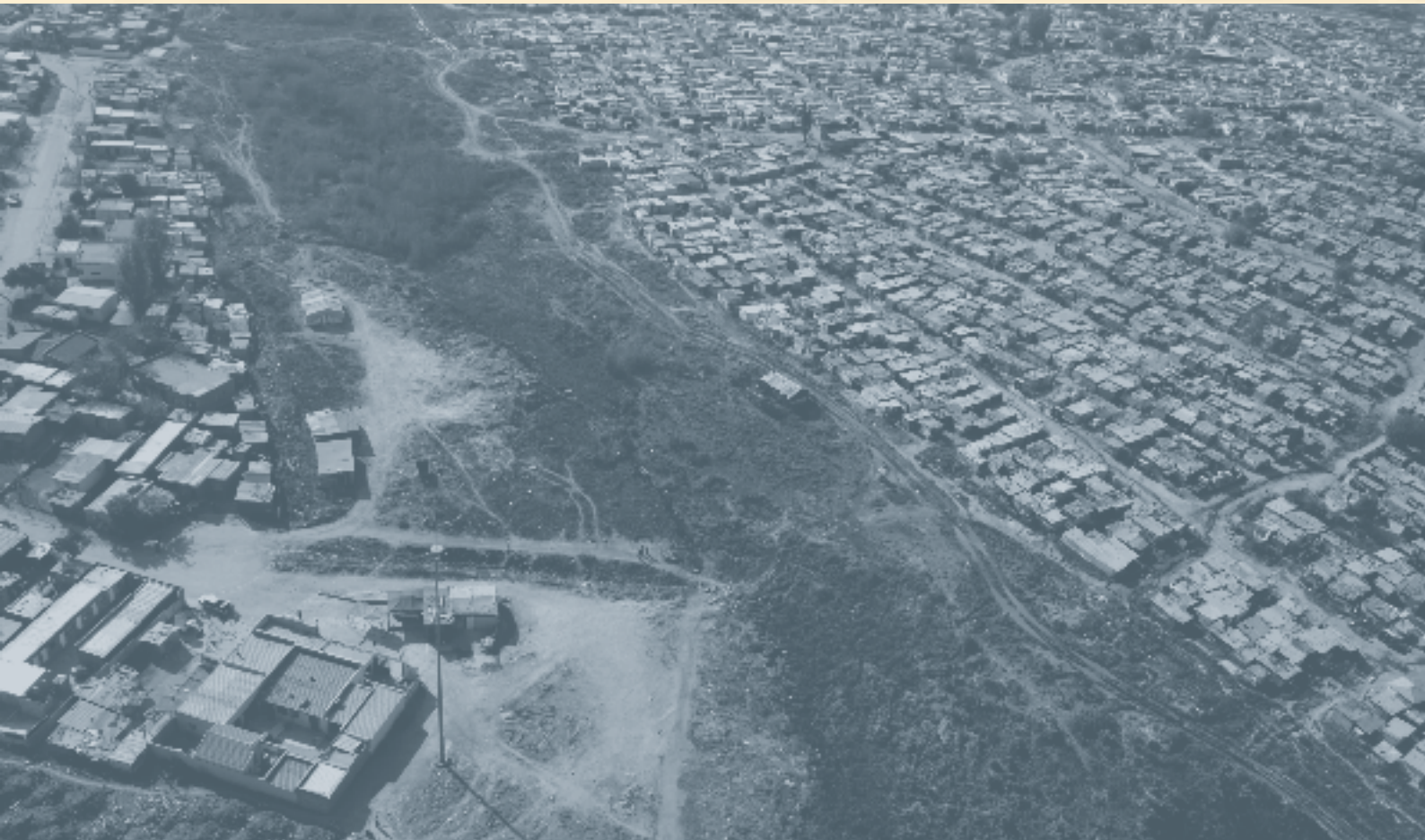
The grand narrative of this publication is the movement from housing to human settlements, and how cities understand human settlements. Underlying the narrative is the question of whether this shift, from building houses to creating sustainable human settlements (SHS), has been sufficiently reflected on. The provision of housing and the development of SHS may be at odds with each other: the one is targeted at households (people), whereas the other is all about settlements and neighbourhoods (spaces), and ultimately transforming our urban centres. This tension is a thread that runs through the publication, which explores three areas: policy and instruments, through the fiscal and planning framework; the responsiveness to urban dynamics, in particular how the state can respond to urban mobility, co-production and post-intervention changes to settlements; and urban governance and institutional capacity to manage the human settlements function and land-use management.

KEY CHALLENGES

The inherent tension is that housing deals with the number of houses built and hectares released, whereas SHS is about the sustainability of neighbourhoods and quality of life. Tshangana makes the point that the quantitative trumps the qualitative in measuring performance: government

practice is to set and monitor quantitative targets, and is supported by a bureaucratic machinery that builds houses and manages beneficiaries and projects. This practice has had various reiterations, divided into three historical phases: Housing White Paper, Breaking New Ground (BNG), and Outcome 8, which have consistently addressed the same issues of supply of land, tenure, services and houses, and been underpinned by a particular fiscal arrangement of subsidising households. However, although the language has changed over time – with Breaking New Ground being explicit in saying that government's response should be 'demand defined and supply negotiated' – the instruments and practice of supply have not.

The implementation of the Human Settlements Development Grant (HSDG) by provinces and some metros involves mostly project management and beneficiary administration. Yet, as Pieterse et al. correctly make the connection, city-wide urban infrastructure needs to go beyond project-driven approaches. Tshangana provides a much more detailed analysis in her outline of fiscal instruments, while Graham et al. highlight the NDP's broader transformative agenda for human settlements that is materially different from the delivery of standardised housing units. This requires, in fiscal terms, a fundamental rethink of the HSDG and, in institutional terms, a rearrangement of internal and external delivery models.

The other issue is political will, as giving a house to an individual household is a strong electoral incentive. Saying that we want to deliver an efficient built environment with strong community empowerment initiatives (i.e. SHS) does not have the same potency

as the message that we have built 3.5 million houses. Changing the message is difficult, despite louder murmuring of the unsustainability of delivering houses. So three points emerge:

- The political and technical message has to change and be part of public discourse, not restricted to practitioners.
- Fiscal instruments have to be designed to target predominantly space, rather than exclusively housing units.
- The social dimension of settlements needs to be understood, alongside household mobility within cities.

Such changes will not be easy because they require institutions and people that understand these dynamics, are flexible in seeking solutions and have the necessary capacity to do so. The vital question is thus whether the house-building machine can change.

CHANGING THE MESSAGE IS DIFFICULT, DESPITE LOUDER MURMURING OF THE UNSUSTAINABILITY OF DELIVERING HOUSES.

The implications of moving from delivering houses to developing SHS have to be properly addressed because of the profound impact on government planning regimes, programme development, fiscal and financial arrangements, project implementation, and institutional and personnel capacities. Herein lies the difficulty of defining SHS because such a definition requires a fundamental shift in government practice and capacity, and this is what this publication attempts to address.

The chapters in this publication have provided valuable conceptual and empirical insights to this debate, by examining the implications and tensions outlined above. This concluding chapter attempts to pick up the crosscutting strands, examines some of the findings and recommendations, and hopefully provides some gentle provocations to the readers.

KEY EMERGING THEMES

Households vs neighbourhoods
The reality on the ground is often very different from the original intentions of government policy and practice. In their post-intervention analysis, Charlton et al. offer some thoughtful material on what happens in settlements after project development, reflecting on changes to sites, houses, households and neighbourhoods. Although individual and neighbourhood changes are not mutually exclusive, tensions can arise in the course of these (post)

developments, particularly in regard to managing public spaces, building regulations, noise and pollution. The chapter by Pieterse and Van Donk is also concerned with neighbourhoods and examines the role that (urban) design can play in developing and upgrading informal settlements but, more importantly, in embedding them into the city fabric. In her contribution, Cross looks at how young, unemployed residents can make their way into the urban economy, given the spatial functionalities of cities, and argues that understanding the household-movement dynamic is the key to how the state responds. While the arguments made in these three chapters are more complex, the point here is that glossing over tensions between catering for household needs and developing neighbourhoods poses a challenge for government.

Devolution to local level
To ensure 'service delivery' and greater integration of human settlement services, the human settlement function is being devolved to municipalities. The overall aim is to ensure the alignment and coordination of government's planning framework, mandates, policy, legislation, programmes and projects. To achieve this means addressing issues such as the allocation of functions, roles and responsibilities, political decision-making, intergovernmental relations, and bureaucratic and institutional delivery capacity. The other aim is fiscal and financial consistency, and policy and funding certainty. The lack of such consistency and certainty undermines the capacity for longer- and medium-term planning, in turn negatively affecting project planning and feasibility, and capacity to deliver in public, private, and community institutions.

Planning, alignment, consistency and coordination of SHS at the local level can only happen by giving greater control of planning functions, as well as budgets. However, Zitumane makes a compelling argument about the dysfunctionality and incapacity of two metropolitan municipalities to take on the housing/human settlements mandate, as well as the flawed Intergovernmental Relations Framework and the institutional instability that arises mostly from political decisions. While the theoretical framework for devolution is sound, the devolution process followed must not disrupt existing service delivery and the pursuit of SHS. This will require municipalities to explore honestly and critically the challenges they face and to put in place plans that address their shortcomings, while national and provincial government will need to provide adequate support, especially during the transition process.

Supply vs. demand

From 1994, government policies and programmes focused on the supply side, as the concern was the apartheid quantitative backlogs. The Reconstruction and Development Programme (RDP) included targets for water, electricity and housing (aiming for one million houses in five years). Ten years later, the BNG recognised the need to move from supply to demand, with the key issue being delivery that is 'demand defined and supply negotiated'. Therefore, municipalities have to understand the demand and plan the supply of human settlements. The demand side has two aspects: quantitative and qualitative analysis. Cross demonstrates that a finer-grained analysis shows surprising results, some of which are counter-intuitive. As the SACN has always insisted, information and intelligence

on the dynamics of urban populations and economics must be part of local government institutions' practice, so that decision-makers can make better decisions. Planners are largely responsible for providing and then converting this information into spatial outcomes. Graham et al. argue that the planning instruments exist and that the integrated development plan (IDP) is the core – the rest is detail. However, they also point out that although projects reinforce the supply-side dynamic, planners do not control budgets or project implementation and yet are largely responsible for IDPs and spatial development frameworks.

UNDERSTANDING THE DEMAND SIDE IS BOTH A POLITICAL AND TECHNICAL IMPERATIVE IF GOVERNMENT IS TO MOVE TO BETTER DECISIONS.

Perhaps the problem runs deeper and exists within state institutions, where high levels of institutional instability lead to a lack of continuity and risk-averse officials. Pieterse and Van Donk provide one answer to understanding the demand side – community participation and citizen activism, but note that the capacity, institutions, know-how, and data to intervene effectively are lacking. To be effective in shifting to the demand side will require these issues to be addressed. However, more important is changing the attitude and mindset related to understanding and communicating the data – which is not simply a technocratic solution, particularly where community participation is concerned. Politically it is a minefield for officials because in some instances councillors will argue they are the elected representatives of the people. Be that as

it may, understanding the demand side is both a political and technical imperative if government is to move to better decisions. But the entrenchment of supply-side interventions should not be underestimated.

Community participation

Defining the demand is difficult enough, but negotiating the supply may be even more difficult. In terms of the current practice, households access subsidies through projects: projects are allocated to developers/contractors through a tender process, and beneficiaries are allocated through beneficiary administration. At this stage, three programmes – social housing, financed-linked and to some extent in-situ upgrading of informal settlements – are the exceptions. Even so, social housing institutions run their own waiting lists, subject to housing subsidy prescripts. Households that migrate through the city have very few options in this regard. Community participation is limited to negotiating waiting-list processes and housing-tender procedures. The issue then is where is the connection between housing and SHS development, and the match between supply and demand. Charlton et al. raise a more intriguing matter of supply in existing RDP projects (which may include existing townships). They argue that beneficiaries of state-subsidised housing make a wide variety of physical modifications to their properties, including backyard dwellings. This is either for kin or rental. What is occurring, even within 'formal' projects, is a more informal response to social and market needs for rental and other accommodation. Government responses have been mixed, either ignoring or demonising these possibly more functional responses. Yet serious consideration must be given to a sensible

regulation response that may include guiding the landlord/tenant relationship. As Charlton et al. point out, this is an urban management issue.

Management – specifically urban management – is central to the process of moving from housing to human settlements. The issue here is why shouldn't poor settlements have the best urban management, or, as Pieterse and Van Donk ask, why poor neighbourhoods can't have the best design. Urban management is perhaps best illustrated by the case studies offered by Charlton et al. around issues of densification and re-informalisation. They make the point that the regulated environment in Cosmo City was about an urban management partnership between the City of Johannesburg and the project developers. Denoon-Stevens and Zitumane offer two perspectives on urban management. Denoon-Stevens argues for reform of

the planning regime, using planning reforms to change the city for spatial justice, whereas Zitumane warns of capacity limitations or dysfunctionality on the part of provincial or local government to manage the transition to human settlements. In both instances, administrative and functional management becomes more important than the dissonances between planning, budgets, infrastructure installation, project implementation, and compliance administration. It is important to note that governance has two sides; a democratic responsiveness to citizens' needs and governability, which means abiding to agreed-to laws and rules (the job of government). In this regard, there have been many arguments for co-management of urban settlements. Co-management models, such as Community Policing Forums and Community Works Programme job creation initiatives for maintenance, need to be explored and expanded, as part of the pursuit of an active citizenry. Related to this is the argument for co-production.

Co-production

Pieterse and Van Donk raise the issue of co-production, which is normally associated with community planning at settlements level and/or self-build housing similar to the People's Housing Process. However, in their understanding, co-production crosses the divide, from planning, programming and urban design on the supply side, to beyond the house and the settlement. The big issue is where does the negotiation of supply begin? If urban design is the crucial issue, then negotiated supply starts at the planning and programme level with communities in their place and space. That means investigating where platforms exist for co-producing not

only at the settlement level but also at the city level. But, who is the community? In cascading (inverting the real meaning of the word) upwards, the 'community' becomes more diverse from the poor and marginalised, working class, evolving to middle-class, entrepreneurial and elite interests. The question is who manages this process and, more crucially, what platforms are there to deal with strategic and programme matters.

Financial management

Graham et al. suggest that the way forward is to subordinate projects and budgets to spatial planning. If municipalities are in charge of planning, they have to be in control of direct investment. This raises the issue of devolution of the `housing' function. Some progress has been made in allocating built environment budgets to metros through the Urban Settlements Development Grant (USDG), which has a spatial implication. However, directing housing investment is not enough, as simply devolving the Human Settlements Development Grant (HSDG) budget will not result in SHS. One of the major issues affecting the matching of supply and demand is corruption and misadministration (this word is deliberately used). Corruption distorts the relationship between supply and demand. When dealing with the tendering process, two aspects are essential: ensuring that the supply chain management process has both administrative capacity (to develop specifications) and transparency (clear criteria). These aspects also apply to managing waiting lists, where demand outstrips supply, as the scope for manipulation is greater when dealing with individual households than when dealing with communities.

Capacitating government and communities

The moving from housing to human settlements assumes the need to manage genuine engagement between key stakeholders. Yet the broader debate is about economic poverty and inequality, rather than about information and capacity inequality, which make matching demand and supply difficult. A more considered approach to capacity-building is required. However, both government and civil society have experienced considerable losses of institutional memory and leadership. What is needed is for the practices of officials and institutions to align with policy and for communities to understand these `government issues'. Yet government sometimes does not understand its own `government issues', and the complexities of community participation, co-production and responsive governance and governability require specialised training. The contributors to this publication provide rich evidence that capacity building and knowledge sharing is the next major national project. In this regard, Pieterse et al.'s central argument is important: the establishment of training academies to ensure an increase in knowledge and practices of co-production of SHS.

MOVING FORWARD: OPPORTUNITIES FOR CITIES

For the transition from housing to SHS to become a reality the following is important:

- **Policy review.** In the absence of a national policy framework to guide the development of integrated and sustainable human settlements, cities should reflect on and be guided by the way that its inhabitants (especially poorer communities and those benefiting from state assistance) navigate the city. As illustrated by the Cross and Charlton et al. chapters, complex and nuanced factors guide movement around cities and decisions about investments in individual and communal contexts. Cities should attempt to understand and document these processes, as a way of informing eventual national policy development.

- **Institutional realignment and devolution.** The human settlements function must be realigned and devolved, which will require political and technical commitment to the process. While devolution is actively encouraged, cities should use the next period to address existing institutional challenges that may hamper the effective implementation of this new function. Among these challenges are outdated human settlements sector plans and poorly capacitated organisational arrangements for human settlement delivery. While municipalities are responsible for the functions that contribute toward SHS (including water and sanitation, land and urban management), the housing function has to be examined within this institutional and operational context. These challenges (and others) are highlighted and discussed in the Zitumane chapter, which provides a first step towards identifying the critical issues to be addressed.

- **The right fiscal framework and instruments.** These are crucial to support the delivery of SHS, as highlighted in both the Graham et al. and Tshangana contributions. While fiscal instruments have undergone a considerable (re)design, a specific

review of the current grants is needed, with specific recommendations on creating greater synergies for human settlement delivery, emphasising spatial investment. This would also influence the assessment of outcomes beyond quantitative targets. Fiscal and financial management must also address corruption and maladministration, which have affected delivery in the past. The considerable work done within government, to develop frameworks to combat corruption, may be extended to look at further ways of involving communities in this process.

■ **Planning instruments are sufficient.** As Denoon-Stevens suggests, particularly with the recent introduction of the SPLUMA, government has the necessary planning instruments to guide more effective and transformative land use and management for human settlements. However, a key issue will be to situate the human settlements function within this institutional arrangement and to speed up delivery through improved efficiency and effective time management. A vital component in the planning function is understanding the demand side, while urban management issues (including the land use management function) need to be seen from a developmental perspective, and not only be compliance driven. Institutional arrangements must include how to respond to and manage community dynamics and demands, in order to encourage co-production and co-management, as highlighted by Pieterse et al. These arrangements relate not only to project and neighbourhood issues but also to broader programmatic and city-wide issues.

■ **Capacitation and knowledge sharing.** Building capacity and knowledge – within government, in cities, among neighbourhoods and across interest groups – is absolutely essential and will require a considered strategy.

Various metropolitan municipalities are already applying many of the above recommendations, in particular related to policy, planning, urban design, institutional arrangements, co-production and capacity building. However, as highlighted above and throughout this publication, cities have many critical opportunities to improve their human settlements response. Local government, and city governments in particular, are indeed well placed to deliver effective, sustainable and integrated human settlements, if they are able to put in place the required capacities and institutional mechanisms to accompany and complement existing human settlement policy and frameworks.