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Incremental housing: research paper (final)

Western Cape Department of Human
Settlements

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1. THE RESEARCH PROCESS

1.1 Introduction

In partnership with the Western Cape Department of Human Settlements, the African Centre for Cities (ACC) at the University of Cape Town has established the Sustainable Human Settlements CityLab. Both the CityLab staff and the Policy and Research Directorate have played integral roles in the production of this research.

The focus of the 2012-2013 research includes:

- Exploring incremental housing and site and service approaches: constraints, concerns and opportunities
- Furthering the debate and provocation: adding layers to the sustainable human settlements debate

1.2 Methodology

The CityLab used mixed method research. See annexure A for a full list of methodological techniques and descriptions. In summary, the following were used:

- Mapping of institutions and perspectives in South Africa's housing debate. This included identifying all institutions working in the field of housing and planning in South Africa.
- Interviews with local municipalities and implementing agents (see Annexure 2). Some of the interviews were face-to-face and others were over the telephone. The choice of local municipalities to interview was based on the 2010 Growth Potential Study (Stellenbosch University and Council for Scientific and Industrial Research, 2010). The following core questions were asked followed by follow-up questions which varied, based on individual answers:
 - What do you think incremental housing is?
 - Are you aware of Provincial Strategic Objectives 6's movement towards site and service delivery and how do you feel about this shift?
 - Have you attempted to implement an incremental housing programme, if so what are the steps, and if not, why not?
 - What policy tools did you use to do this?
- In-depth interviews with specialists in the field of land and housing in South Africa. See Annexure 2 for a full list of interviewed people and their qualifications.
- The findings of two workshops hosted at the African Centre for Cities specifically focused on incremental housing and site and service models.
- An in-depth review of policy and existing grey literature. This included reviews of past and current policies as well as a number of unpublished reports.
- Attendance at a number of workshops and conferences related to land and housing including workshops on finance, open building, affordable housing, informal settlement upgrading.

1.3 Summary of research findings

An incremental approach to housing delivery frames the development of the housing unit as a progressive, temporal and dynamic process. The end-user drives this process through active participation, management and investment. In contrast to an approach which may focus on the production of complete units, incremental housing approaches break down the unit into its basic components and consider the actors and networks through which each component can be addressed.

Proponents of incremental approaches to housing provision for the poor suggest that the approach allows for broader participation, more appropriate financing, scaled delivery, more strategic state investment and higher degrees of adaptability. Many of these proponents draw inspiration from the 'creative' and often informal practices of the poor arguing that the role of the state should be to facilitate functional markets and ensure freedom and choice rather than to mass produce housing.

Incremental housing ideology has often struggled in its translation to formal policy and state-led provision. This is for a number of reasons. Firstly, formal state departments often struggle with informality – the basis of the incremental housing approach. Officials are for more comfortable with clear end products and controlled delivery processes. Secondly, the development of incremental housing is contingent upon the progress, interaction and participation of a variety of actors who play different roles and require different supports. Finally, measuring success in incremental housing is more difficult and requires consideration beyond the normal and often very quantitative housing delivery indicators.

In practice incremental housing has often been implemented through 'site and service schemes' which generally include the provision of titled plots with basic services. The basic underlying logic behind the site and service model is that the state should provide serviced land at scale and other actors (namely households) should be responsible for housing construction. The history of site and service schemes in developing cities tells a story of limited success and continued challenge, particularly in addressing the needs of the very poor. Especially when using the often inflexible capital subsidy aimed at individual households (much like the World Bank approach), this model is deeply constrained. Despite the mass scale delivery of this approach achieved in the 1970s, the frequent critiques of the model include the often low quality of product achieved, the inability of the model to address spatial fragmentation and integration (often due to land scarcity), unaffordability and exclusion faced by poor households and failure of the model to address the scale and diversity of housing demand.

Many of these concerns extend to the South African experience where a variety of serviced land approaches were attempted, most similarly, the Independent Development Trust site and service projects. Many additional challenges arise from the various attempts to subsidise the incremental development process through consolidation grants such as with the Peoples Housing Process.

Reflecting on the challenges of state-sponsored serviced land approaches and taking cognisance of the current political and social climate in South Africa, it becomes evident that the implementation of a services site delivery approach must go beyond the simple, yet politically unpalatable idea that the department must 'do more with less'. Moreover, the diversity of needs and demands for housing by the poor precludes a 'one-size-fits-all' incremental housing response.

In reflecting further on the capacity constraints of the state to design and target specific interventions and supports, this research paper suggests that incremental housing policy in South Africa requires a dual approach from the state.

The first prong of this approach involves supporting and strengthening the self-help networks through which more pro-poor markets can be achieved. This paper specifically highlights the need to institutionalise pro-poor land rights registration systems which are free from the cumbersome and expensive procedures of free hold tenure, offer alternative zoning and building regulations which offer guidance, rather than prescription to incremental housing participants, strengthen the low

income building sector and increase effective demand for housing through financing tools and livelihood integration. This can be seen as a 'facilitative role' wherein the state offers support which extends beyond a specific project.

The second prong of this dual approach includes designing and implementing more nuanced and contextually specific projects on the ground particularly in regards to land and infrastructure. This includes choosing appropriate location, tenure, plot layouts, allocation mechanism, services and core unit to address the specific needs, capabilities and development requisites of a particular project. Moreover, ensuring that the right building support is offered at each phase of the incremental development process is essential (i.e. project support though housing support centres should be offered during the core phase wherein area based support centres may be offered in the latter incremental phases).

Thus, up-scaling the delivery of incremental options requires stretching the comfort zone of officials, communities and other stakeholders who may prefer the delivery of finished units to the somewhat messier and far less controlled process of nuanced design, market facilitation and progressive (and often informal) development stages. It requires taking a multi-scale approach which links individual projects into broader networks.

2. A CONCEPTUAL FRAMEWORK FOR INCREMENTAL HOUSING

“Housing delivery is moving towards a more incremental process”¹

2.1 Intention

The intention of this section is not to offer an undisputable definition of incremental housing. Rather, the purpose is to create a set of clear and ‘South African relevant’ parameters for what is ‘in’ and what is ‘out’ of the incremental debate. Moreover, this paper aims to provide an informed platform from which to discuss the re-inclusion of self-help² housing into the housing policy. The following incremental housing conceptual framework will guide both the content of the paper and the direction of policy suggestions.

2.2 Incremental housing and developing cities: relevant issues

Developed cities have tended to avoid incremental models for the poor, instead favouring high-rise, tenement style mass production. However, housing provision in developing³ towns and cities has historically been dominated by a ‘self-help’, upgrading⁴, progressive, and incremental delivery process with varied levels of informality, management, and state support (De Soto, 2000, 2002; Napier, 2002; Stren, 1978; Omenya, 2002). Ferguson and Navarrete write “[i]n developing countries, 70% of housing investment occurs progressively—that is, households acquire land through purchase or invasion, and gradually improve the structure and legal tenure, and lobby for basic services.” (2003: 1) In fact, much of the original support for incremental housing came from urban thinkers who observed the informal housing practices of the poor and saw value in these creative processes. Thus, informality, and its converse, state regulation, are central debates in incremental housing (Huchzermeyer and Karam, 2006).

In incremental models, housing is no longer seen as a static unit and is instead broken down into its components. This highlights the process-based and elemental nature of the delivery mode. Greene and Rojas describe the three phases of this process to include land access, construction of the core nucleus and incremental improvements to the structure (2008). They further argue that “[i]t is important to distinguish “between the features of the actual houses and those derived from the neighbourhood in which they are located” (2008: 92). Omenya takes the concept further arguing for the importance of situating incremental housing in a ‘self-help network’. He describes a self-help network as “[the] complex system or web of relationships, among actors and agents, through which various resources such as land, finance, information, labour, infrastructure, services, technology, etc. are exchanged for the primary purpose of the production of housing through self-help” (2007: 1).

¹ Rust, K., 2013 Business Day, <http://www.bdlive.co.za/national/2013/02/28/budget-shows-incremental-approach-to-housing>.

² A term to describe housing which uses end user decision making and direct participation in the housing production process including the provision of resources for the supply of housing. (Self-help may or may not include state provision of resources. Self-help is simply a case wherein the ‘self’ as the end user, plays an active role in the process).

³ A term used for statistical purposes to reference those countries globally categorized by a lesser degree of living standards and industrial development base and a low Human Development Index in comparison to other countries.

⁴ This refers to the improvement of living conditions. This would either refer to the provision of infrastructure, services and top structures to improve the conditions in an informal settlement, or the upgrading of accommodation.

In using these ideas to conceptualise the ‘role of the state’ in incremental models, two ideas emerge. Firstly, the value of identifying different delivery phases allows us to consider different state roles at each phase. While the phase of land access and planning are collective investments which impact on the plot, the finally process of home building is more individual. Thus we can consider a much stronger and more directed role for the state in the early phases of incremental housing development – we argue that this will translate into strong investment in the land, infrastructure, and public sphere. Notwithstanding reservation in the latter phases of the housing production process, Omenya’s self-help network highlights the many ways in which the state can and should indirectly support the self-help process through system wide investment which enables incremental housing markets to function.

Thus incremental housing depends on the end-user managing the provision of the housing unit while the state retains investment responsibility in the public and community spheres. Moreover, using these concepts, it becomes clear that the state, in conjunction with other actors, needs to facilitate the markets which impact on incremental consolidation processes as well as supply the basic site and community inputs which support incremental growth and development.

Using the above authors’ frameworks, this paper will focus on the components of incremental housing which directly relate to the delivery and development of incremental housing as a particular housing typology. This includes exploring the land issues, site core inputs, and incremental development. However, as these processes are often undertaken at the community level and impact on the surrounding areas, one can also make an argument for incremental housing being integrally linked to community, neighbourhood, and block designs. This is particularly true when advocating for state investment to be shifted from housing provision to market facilitation and public realm investment. Thus, incremental housing therefore includes elements which are both specific to the scale of the plot and relate to the broader neighbourhood.

Because all housing - formal and informal⁵ - experiences some level of incremental development and extension, a clear incremental housing definition hinges less on the creation of a delineation of what is and is not incremental housing and more on an understanding of the degree to which particular metrics of incrementalism are experienced (Stren, 1978; Omenya, 2002). This paper seeks to highlight three important metrics: self-help, progressiveness, and end user driven. However, because incremental metrics feature in most housing typologies to greater or less extents, much of what is applicable to all housing projects is also applicable to incremental housing. For the purpose of clarity, this paper will focus on issues and particulars which are specific to more incremental typologies and will use a combination of local and global experiences to ground the discussion.

Self-build

In all incremental housing there is some amount of self-help, self-build or auto-construction. Self-help is, at its core, is a rejection of what Burgess terms “state-finished” housing programmes and housing programmes which focus on the delivery of finalised products to consumers. This means that, to varying degrees, the recipient or recipient community partakes in the management of the building and financing process. However, as Burgess points out, nearly all housing is altered over time and “it is exceedingly uncommon to find a squatter settlement in which a considerable number of self-help houses have not had some form of paid skilled or unskilled labour involved in their construction.” (Burgess, 1985: 273) Thus, while formalised self-help housing generally has lower levels of wage labour participation (relative to sweat-equity) in comparison to state-finished housing, unsupported self-help (i.e. informal settlements) may have even lower levels of wage labour participation comparably. Wage labour is not eliminated entirely in incremental housing and rather there is a continuum along which different amounts of wage labour and sweat equity contribute to otherwise incomplete housing products.

⁵ In this context specifically, there are references to the illegality of land occupation and self-built structures contributing to the make-do urbanity created by people in pursuit of a livelihood, predominantly on the periphery of cities.

Progressive

This brings us to the second core feature of incremental housing: its progressive nature. Incremental housing by its very nature, re-focuses housing provision on the iterative and perpetual production and reproduction of living spaces, rather than the completed and static housing unit. Much like Turner's seminar book "Housing as Verb" suggests, incremental housing debates capture and highlights the continuous production of housing and the temporal nature of housing development. This temporality is linked to the financial capability and desire of households to invest in their housing situation (Greene and Rojas, 2008). The large upfront cash input and mortgage finance required to purchase a finished product is replaced by a process of incremental improvements, sometimes financed by small loans which are much more affordable for most poor households (Kihato, 2012). For this reason, incremental housing provision and intervention by the state often focuses on the provision of unfinished housing products as well as the tools, networks, agents, and materials needed to enable the range of subsequent developments which homeowners may desire and require.

End-user driven

Following suit, and perhaps most importantly, incremental housing is intrinsically concerned with the end user and their direct, though often highly constrained, participation in the prolonged decision-making processes which constitute the incremental approach. While this point speaks both to the temporal nature of the construction process and is implicit in the self-help language, it is worth mentioning as incrementalism allows for a diversity of outcomes driven by the end users which are often not possible in state provision programmes. Turner, Burgess and others are dominant antagonists in the incremental and self-help debates, grounding their ideological dedication in a deep belief of and commitment to personal and individual freedoms and the choice of people to create and live in their spaces as they require (Adebayo, 2011). Napier writes "Turner's written work can be seen as largely responsible for persuading donor agencies and government officials that the creative activities of people in housing themselves (in informal settlements) should be seen as part of the 'solution' rather than as the major urban problem that it was perceived to be by many city officials (2002: 8).

Site and service

A particularly popular deployment of the incremental ideology has been 'site and service schemes' popularised throughout the 1970's and 1980's. Site and service⁶ often speaks more directly to the policy approach developed by the World Bank than to the underlying ideology of the incrementalism and participation framework. In the early 1970's self-help approaches took the form of international donor support for site and service and upgrading projects of a variety of forms. While guided by the World Bank, other multi-lateral agencies soon followed suit, moving the site and service agenda from a project based programme to a global agenda (Davis, 2005; Adebayo, 2011). Public-private partnerships were developed between lending agencies and local authorities to acquire and administer land, provide basic infrastructure, and select beneficiaries for particular projects leading to similar projects being developed across the developing world. Thus, site and service has come to refer to the delivery of serviced land (most often without a top structure or with a basic core unit) and the organised occupation of sites by selected beneficiaries in this particular context.

South Africa

The above terminology: incrementalism, self-help, site and service, and progressive housing are often used interchangeably by development practitioners in South Africa. As such, Parnell and Hart point

⁶ A mode of delivery equipping eligible persons with ownership tenure, toilet, and tap i.e. a plot of land with basic services where the beneficiary can then build their top structure incrementally. Site and service generally includes a freehold titles plot.

out, “the terms and conditions under which self-help [has been] advocated varies greatly” leading to diversity of responses and outputs on the ground (1999).

In South Africa there exists a wide variety of projects and programmes which, to greater and lesser degrees, contain incremental elements. For the sake of homing in on the most relevant instances, this paper will focus on the history of self-help housing, discussing Independent Development Trust serviced sites of the early 1990’s, South Africa’s experience with the Peoples Housing Process and other incremental programmes as listed in the Housing Code of 2009 and informal incrementalism and self-help, sometimes referred to as ‘artisan self-help’, ‘vernacular architecture’ or simply informal settlements. We will further discuss experience beyond the South African locale, exploring incremental experiences in the Global South which may shed light on the opportunities and constraints which face the development of South African policy and practice.

3. INTERNATIONAL DEBATES: SUPPORTING INCREMENTAL HOUSING

“Incrementally developing and building housing creates a greater supply of affordable housing.”⁷

3.1 Self-help and incremental housing internationally

Government assisted self-help housing has been common since the early twentieth century (UN-HABITAT, 2003). There are many examples globally. In Nigeria, the colonial government serviced large tracks of land and allocated portions to individual and corporate bodies. In Mexico in the 1940s the state authorised developers to create large housing estates and sell serviced plots to low income households. Furthermore, in the 1970s the ‘site and service’ housing delivery model, driven by the World Bank and other international lenders, was the dominant incremental model in most developing countries.

Incremental housing is frequently posited as a more feasible and realistic housing delivery approach than state-led, supply-driven and product focused housing provision. Cities Alliance, the World Bank, and the UN-HABITAT are the key international voices articulating best practice and incremental principles. These organisations frequently present visions and strategies to address the variety of challenges which local governments face when seeking to address their inadequately met housing demand. Further, they argue that the concept of livelihoods, social networks, and urban dynamics are vital for upgrading programmes, thus stretching the box of ‘housing provision’ to include many aspects of ‘human settlement’ facilitation, guidance and support functions (UN-HABITAT, 2003, 2011).

While organisations such as the World Bank no longer focus on site and service provision, they continue to lay a convincing case for incremental housing delivery models, particularly in rapidly urbanising countries and cities. In the 2005 Global Report on Human Settlements, UN-HABITAT writes “[a]ssisted self-help housing is the most affordable and intelligent way of providing sustainable shelter... it is based on minimum standards and incorporates a substantive amount of sweat equity. It is useful because individuals and communities engaged in it acquire precious skills. It is practical because it responds to people's actual need and levels of affordability. It is flexible because dwelling units are often designed to be able to expand over time” (2005:166).

The following arguments are often used to contend the benefits of incremental approaches:

Broader participation for improved outcomes

- In contrast to state-led housing models, progressive and incremental models allow for a variety of actors to play a role in the housing delivery process and be instrumental in decision-making throughout the development (Dewar and Uytendogaardt, 1991).
- Not only are households more easily able to exercise their own preferences, choices, and capabilities, but smaller formal and informal actors come to be critical players in incremental models (Greene and Rojas, 2008). Currently the state has often has a monopoly on low income housing provision. While this is often a response to the reluctance of the formal private sector to meet this less profitable demand, the states activities may be squeezing out important potential actors. The informal (or extra-legal) private sector and small contractors may have a renewed role in incremental housing provision.
- In South Africa, the successful Peoples Housing Process projects allowed for housing beneficiaries to create more needs specific layouts and housing plans. By being active participants in the construction and management, people were able to take ownership of the process and develop some basic skills. For example, the Development Action Group

⁷ Financing urban shelter: global report on human settlements 2005

demonstrated that small-scale contractors, otherwise excluded from housing delivery, were able to play active roles in the process when properly supported through training and registration in Khayelitsha (Development Action Group, 2012).

- There are many global examples which demonstrate cooperative decision-making. Tipple writes “[i]n Greater Cairo, five-storey walk-up flat dwellers in Workers' City, Helwan, and Medinet Nasr, have managed to extend by co-operating amongst themselves to engage specialised contractors to build stacks of rooms attached to the mother building”(1996: 369). In these areas people have been able to successfully and incrementally make spaces more suitable for their needs while creating local employment.

More appropriate financial approaches for poor households

- Unlike a more classic mortgage model (wherein households access finance in order to buy a completed housing product and service this loan over the span of the use of the home), incremental housing models more easily match the construction process with the income, saving strategies and capacities of the households. Thus the household can drive the development process in alignment with their own financial capacity (UN-HABITAT, 2011).
- In Kenya, through a strong community partnership with Kambimoto community and Pamoja Trust non-governmental organisation, Kambimoto informal area was able to transform from a slum area into three story housing units. Through the Trust, households were able to access affordable loans for construction which they could pay back in manageable increments (Alam et al., 2005).

Increase the scale of housing opportunities delivered

- With the state playing a facilitative role, rather than that of direct provision, incremental housing can allow for scaled delivery. Direct provision has tended to be cumbersome and expensive. More strategic investments in the housing market have the ability to increase access more broadly.
- In Thailand, in 2008 The Community Organizations Development Institute (CODI) wrote, “[t]he Baan Mankong program is now in its fifth year. Upgrading projects in 1,010 communities are either finished or underway in 226 towns and cities, in 69 of the country’s 76 provinces, involving 54,000 households.” By creating partnerships between communities and local government, the programme was able to take a citywide approach, addressing both questions of scale and integration without investing huge levels of capital (Boonyabanha, 2008; Hasan, 1990).
- In Brazil, Fernandes highlights the positive impact of comprehensive registration and public realm investment in the *favelas*. While he clearly states that title deed transfer alone is not a sufficient catalyst for incremental settlement upgrading, the combination between broad tenure security programmes and deep investments in public infrastructure have been essential features in improving the living conditions in Brazilian cities (2000,2011).

More strategic state investments

- The role and function of the state is a hotly contested subject. There is, however, a growing consensus that the state should focus its scarce resources on the provision of ‘public goods’ and the provision of basic necessities for those who have no way to provide for themselves. While private goods are excludable (such as private property), public goods are those which offer collective benefit and whose benefits cannot be individuated (i.e. air).
- Housing is a unique commodity as it has both elements of private and public goods. The house offers public good in its creation of an urban space and settlement and is a basic necessity which all people need to survive. However, its direct use by one household is often more private. Thus, focusing on the aspects of housing which offer public good rather than private good is essential for strategically utilising state capacity.

- In Colombia, Architecture AU writes “[t]op-down investment in the form of pedestrian paths and bikeways, as well as an extensive metro network (completed 1996), cable-car metro lines that connect hilltop informal settlements to the city... most recently, a long outdoor escalator built into a steep hillside neighbourhood, have physically connected the otherwise marginalized energy and human potential of unregulated informal areas into the mainstream economy and life of the city” (1). This strategic investment in the public realm offers an alternative to direct provision processes.
- In Brazil, informal settlement upgrading programmes have tended to focus on public investments and regularisation. Rather than focus on building housing, these programmes have put the majority of energy into social and technical infrastructure which can be shared by the community. These programmes have been praised for drastically improving the living conditions in some of Brazil’s *favelas*.

Flexibility and adaptability

- Incrementalism in general allows for higher degrees of flexibility and adaptability of dwelling units and neighbourhoods (Osman and Sebake, 2004).
- As cities and towns change to accommodate more or different people and activities, incremental development models enable housing to change to meet these criteria and respond to the emerging circumstance. Rather than locking development in a prescribed and finite trajectory, space is opened to support continued and decentralised decision-making in accordance with both site and city goals.
- In the Indian *bastis* (i.e. informal settlements), households add floors to their home to accommodate changing housing demands. Often *bastis* will have five or six informally constructed floors, accessed by a series of ladders.

While incremental housing proponents often cite the above benefits of incremental housing, empirical research and observation of incremental housing projects suggest that these benefits are contingent on appropriate programmatic and project design for a given context. The benefits cannot be simply assumed because a project has some level of ‘self-help’ or incremental elements. Achievement thus requires a deep engagement with the incremental housing ideology and an even deeper understanding of situated and systemic requirements.

The next section looks at some common challenges which incremental housing has faced in the past and continues to face as projects and programmes develop. The purpose of this section is to understand the struggles faced in incremental housing programmes and projects. These challenges will be put in conversation with South Africa’s history with incremental housing as a means by which to understand the current potential of such models locally.

The challenges described in the following mostly describe the experience of site and service housing programmes as this model has dominated the housing debates and the delivery landscape. However, many of these concerns are also documented in informal settlement upgrading, managed land settlement⁸ and incremental financing programmes often, however, to lesser extents. Moreover, this does not undermine very good work and interesting incremental projects which have been undertaken in a number of locations further warranting a discussion on why some of these unique achievements have not been replicable or transferable.⁹

⁸ Managed Land Settlement describes a process wherein households settle land in an ordered manner and then pressure the state to provide services etc. See Land First, (2011) for more information on the South African experience.

⁹ This will not be covered in this paper due to lack of space. However, many unique cases of success have come at high costs and require high levels of capacity and thus often fail to be able to be implemented at scale. The suggestions which are posed in this document are indirectly drawn from some of these lessons and experiences.

3.2 Challenges faced by state-led incremental housing internationally

Despite the glowing narrative in support of incrementality globally, there have been many challenges in terms of implementation and outcome. A variety of reports suggest that self-help projects have been far from satisfactory¹⁰. Serious challenges and critiques include:¹¹

Low quality of product

- The primary concern of incremental housing is the unregulated and thus potentially unsatisfactory quality control (personal communication, Smit). While this may be obvious in informal settlements wherein incrementalism is taking place with very little active state support, it is also apparent in state assisted self-help projects when little consolidation¹² advice and building support is given to households.
- In Dunoon informal settlements in South Africa, petty landlords rent out rooms in precariously erected double story structures. While supplying a substantial amount of housing in the area, there is concern regarding the quality and safety of dwellers (personal communication, McGaffin).
- In Kenya, the Umoja project experienced unchecked densification and disorderly growth of the area continues to be cause for public health and safety concern – many argue that the area is still an informal settlement despite its underlying planned nature¹³.

The poor location and peripheralisation of projects

- Examples from South Africa and Chile suggest that site and service projects were often poorly located, far from amenities and urban fabric (Huchzermeyer, 2001). Not only did this fragment the urban form, but often increased transportation costs for already vulnerable households. With little additional community level investment, many of these areas struggled to become vibrant living areas.
- There are many examples in Kenya where projects on the periphery of cities and towns quickly became unaffordable to the urban poor. In Kenya the poor who received plots sold the plots to middle income households who had vehicles and were less concerned with location. This was the case of Dandora where today few of the original owners occupy the area (Syagga, 2001). Many of the erven have been joined, making room for high-rise middle income housing which has been built.
- In South Africa, marginalised plots were left empty as the household never gained sufficient income to put up even a core unit (Huchzermeyer, 2001; Smit, no date; Nuttal, 1997). While there is no conclusive study to demonstrate this, reviews of the IDT sites, which included returning to the locations to assess development, often found sites barren (personal communication, Smit). This reality is attributed to both the poor locations and

¹⁰ See Laquian, 1983; van der Linden, 1986; Peattie, 1982; Sanyan, 1987, Aravena, 2011; Hassan, 1990 for reports on the problematic outcomes of projects.

¹¹ It is important to note that the majority of lessons emerge from reviews of 'site and service schemes' implemented in the 1970s- 1990s by the international development agencies and local partners and they may not all apply to other incremental models such as informal settlement upgrading.

¹² Housing consolidation refers to the process of building the housing superstructure. It can also refer to the financial subsidy provided by the state for the construction of a top structure as described in The National Housing Code Part 4.A.

¹³ These findings are based on research on incremental housing conducted in Nairobi including interviews with NGOs and government officials. For more information on this case see <http://web.mit.edu/incrementalhousing/WUF-Rio/pdfs/networkSessionSUMMARY.pdf>.

Unaffordability and lack of building on sites

- In many incremental housing projects, the poor have been unable to build on their sites. Lack of building on sites takes place for a number of reasons, including a miscalculation of households' ability to invest in housing and inappropriate building standards.
- In many cases, plot recipients were asked to adhere to formal building regulations and more appropriate and affordable zoning and building schemes were not developed. The high standards imposed on beneficiaries for house construction disabled building processes for poor households (Buckley and Kalarickal, 2006).
- In many cases there has been an over calculation of the savings or earning capacity of poor households. Often the ability of the poor to save and contribute to their housing is very low and it takes a long time for the poor to build on their sites. Market down raiding¹⁴ might also occur if the poor are unable to maintain and build on the plot.
- In Naiorbi Syagga writes “[w]hile individual projects had their specific problems, the most serious failure in most of the sites and service projects was the assumption made of the low-income households' ability and willingness to pay for housing” (2001: 19).
- In Ghana, a study showed that it took nearly twenty years for many households to complete their incremental housing units (Tipple, 2000). With a very low capacity to save, many households struggled to complete their units. In addition, Tipple argues that most housing extensions are built with small amounts of cash saved up by the household. It is rare that loan finance is available for extending dwellings. He thus argues that the lending landscape still has a long way to go in meeting the incremental housing needs of the poor (1999).

Inability to address scale

- Despite the desire to implement at scale, many state-led programmes were unable to reach projected targets or inspire the consolidation processes so envisaged. The lack of availability of land, slow land release and administration process are major factors affecting the issue of scale.
- UN-HABITAT writes, “[s]mall-scale sites-and-services schemes and slum upgrading projects alleviated the conditions for some Africans but these approaches still fail to increase housing production at a scale that is required.”(2011: 9) This is particularly true of serviced site delivery. In Kenya, for examples, the mass scale serviced site projects still only addressed ten per cent of the total housing demand at that time (ibid.).
- To explain this, Burgess suggests there are a number of inherent losses which exist when moving from what he terms ‘artisan self-help’ (i.e. informal) to state-led self-help, arguing that there are both structural and conjunctural issues which arise when transitioning from the former to the latter (1985). Many of the productive processes are scaled response seen in informal settlements cannot be replicated by formal programmes.

Ironically, many of the said benefits of incremental housing models are also the critique of its implementation. However, despite these critiques, there is resounding support for incremental housing and, more specifically, the reorientation of the role of the state away from the direct provision of finished housing products and towards more facilitative and supportive roles. In South Africa, where the state has been the primary housing provider for the poor, the shift towards incremental models, at least in policy, is apparent. The next section will explore South Africa's specific relationship to incremental housing, both historically and currently in an effort to understand the potential of particular approaches in the current context.

¹⁴ A situation where the assets of the poor are bought out by middle class. This is generally due to the lack of housing options available to the lower middle class and often cannot be remedied simply through sale restrictions.

4. SOUTH AFRICA'S EXPERIENCE

“In harnessing all the resources at our disposal, we have to do more, with less; we have to work smarter and harder.”

“[t]he only way to prevent the growth of informal settlements (which usually results from new household formation and rural-urban migration), is through the rapid provision of serviced land for settlement, or “managed land settlement.”¹⁵

4.1 The search for a new approach

South Africa's housing policy includes a wide range of programmes spanning from informal settlement upgrading, such as The Housing Development Agency's Zanemvula mega-project in Port Elizabeth, to high rise, high density rental housing subsidies such as in the Ikhaya precinct in Johannesburg City¹⁶. This variety of options offers a unique set of tools to local implementers who are able to creatively deploy such implements to address the diversity of context and demand.

The most frequently used programme amidst this spectrum is the project linked subsidy programme which enables the production of what is commonly referred to as the 'RDP house'¹⁷ (Charleton, 2013, Huchzermeyer, 2003). The project linked subsidy is administered through projects (rather than to individuals on a 'case by case basis' as delivered through Individual Subsidies). The RDP housing is a 'one house per plot', free hold title model where houses are built by the state for qualifying households who earn between 0 and 3,500 rand per month. Houses have often been built on the periphery of urban settlements, on subsidised state land and generally at low densities (SERI, 2011).

This project linked subsidy programme has evolved in the most recent Housing Code of 2009 to become the Integrated Residential Development Programme (IRDP). In addition to other land uses, the IRDP programme allows for both subsidised and finance linked housing to be developed thus allowing for both cross subsidisation and cost recovery. In the IRDP the municipality assumes the role of the developer and all projects must align with the IRDP (SERI, 2011). The programme attempts to respond to many of the issues faced by the RDP programme and offers a more holistic development agenda. The project linked subsidy programme has been the single largest transfer of assets to previously disadvantaged people and accounts for nearly forty per cent of the current housing stock in South Africa (25 per cent through formal RDP structures and 15 per cent through informal landlordism) (personal communication, Rust). Moreover, Rust's research on housing assets suggests that they have been important economic assets for families, offering both opportunities for home based enterprise and petty landlordism (Finmark Trust, 2006).

Despite these important successes, it is well documented that both the design and implementation of South African housing programs, and particularly the 'RDP house' model, have proved not to provide at the scale and speed necessary to meet the growing housing demand in cities (Huchzermeyer, 2001; Charlton, 2006; Harrison and Watson, 2008; Khan and Thring, 2003). The Social and Economic Rights Institute states that “it will be impossible for South Africa's current settlement policy and practice to fully address the United Nations (UN) Millennium Development Goals (MDGs) target of [informal settlement]-free cities, and the South African government's own target of “eradicating informal settlements by 2014” within the current policy framework (2011: 8).

¹⁵ Parliamentary Monitoring Group (PMG). (2012). Human Settlements: Minister's Budget Vote Speech. Date of Briefing: 9 May 2012 [Online] Available: <http://www.pmg.org.za/briefing/20120509-address-minister-human-settlements-tokyo-sexwale-occasion-human-set>. Urban LandMark, 2008: 26.

¹⁶ For a full list of programmes see the 2009 Housing Code

¹⁷ RDP is short for the Reconstruction and Development Programme. This programme included a housing component which had many programmes; however, the RDP house colloquially refers to the project linked subsidy aimed at complete houses as a delivery solution. Generally refers to a one house per plot model using freehold tenure.

*Issues with current policy*¹⁸

Based interviews, policy review and a review of the existing housing policy critiques, the following issues have been identified:

- Despite impressive delivery records, **demand continues to grow** suggesting that up-scaling and expediting the current model is not the answer.
- State **financial capacity and desire to be the primary formal supplier of subsidized housing to poor households is limited**, thus the expansion of programme funding is not deemed sustainable.
- The product supplied with its finishes **has not recognised or leveraged the differentiated capacity of the poor**, due in part to the lack of knowledge about the nature of demand, particularly in informal settlements. Products have tended to be homogeneous to save costs.
- The **housing subsidy creates housing market distortions** and perverse incentives which further exacerbate social and economic tensions among sub-markets.
- The current housing model is not addressing the **problematic spatial form** of the city and continues to produce inefficient and unsustainable urban areas – low income housing provision is not being used as a tool to reshape the apartheid city (Harrison et al, 2003).
- The delivery process has been **focused on top structure delivery** thus shifting the limited resources of the state away from strategic public investment.
- **Social entitlements** for housing (both giving and receiving), have created a highly politicised platform.

In considering incremental housing as one of the necessary alternatives, there are three main reasons for highlighting these issues with the current policy:

- Firstly, neither incremental, nor any other, approach can avoid the existing social and political landscape. For the past twenty years the state has been promising a ‘free house’. This has come to be seen as the norm for officials, politicians, and qualifying households. Until this paradigm is completely abandoned the remnants of this approach will likely cause problems for incremental housing delivery.
- Secondly, due to the highly political nature of housing delivery in South Africa, there is a need to frame new approaches in addressing some of the aforementioned issues if they are to gain traction beyond the housing department with other spheres of government, departments, and stakeholders.
- Lastly, a number of the issues expressed above can be addressed through an incremental approach, if done well. Issues such as the homogeneity of the product and the market distortion can be addressed. However, other issues, such as the social and spatial fragmentations, require more than simply a change in delivery mechanism. There is general agreement from state, NGO, and academic thought leaders that, notwithstanding many of the international critiques of particular projects or approaches, a shift towards an incremental and participatory approach to housing in South Africa may be able to address some of the aforementioned issues¹⁹.

¹⁸ This list is compiled based on recent studies by PPT, 2012; FFC, 2011. These ideas were also cited by LandFirst, 2012; Development Action Group, 2008; PGM, 2012; Goebel 2007; Charleton, 2013. Many NGOs and government agree that the current policy is not sustainable.

¹⁹ Based on primary research review and mapping of institutional perspectives on housing. The review included the majority of housing, human settlements, and infrastructure stakeholders, ranging from NGOs to private sector companies.

4.2 History of incremental housing in South Africa

Suggestions of serviced land approaches to housing are not new in South Africa. While the history is one of challenge, there is resounding support for incremental housing and serviced land approaches. Kihato from the Centre for Affordable Housing Finance in Africa further argues that times have changed in the incremental debates and, unlike the previous decades where attempts failed, new incremental finance products and funding mechanism offer new opportunities (2012). This section explores the history of incremental housing in South Africa with the intention of drawing situated lessons from local experiences which may be able to be applied to our present moment.

Pre '94 site and service experience

Long before the 1994 transition period, self-help models were used in urban and rural areas of South Africa (Urban Sector Network USN, 2003b). This is apparent when considering the decade by decade account of the use of self-help incremental housing since the Colonial period, which shows the importance, historically, of self-help models in South Africa. In the 1940's, after the Second World War, Johannesburg responded to the housing crisis by building emergency site and service projects for 10,000 families squatting in Soweto. In the 1950s over-crowding and squatting was a major concern, sparking initiatives for fast land release and self-help construction. While housing focus shifted in the 1960s towards a focus on total segregation and limited rights of the poor, the 1970s and 1980s saw a revival of such initiatives as a response to increasing township violence and racial discontent in black areas (Wilkinson, 1998; Adebayo, 2011).

In the latter periods, the Urban Foundation, founded in 1976, piloted a project in Inanda, Newtown in 1980, producing 4,000 shell homes for internal division by beneficiaries. This was followed by the government initiated pilot project in Khayelitsha in 1983 where 5,000 complete homes were produced for extendibility (Ibid.). In the early 1990s, the Independent Development Trust (IDT) launched some of the first systematised and country wide 'site and service' projects as part of the implementation plan for the Urban Foundation's 1990 Proposal for a National housing Policy. The IDT was set up by public funds and is therefore a parastatal organisation. It provided funding specifically for projects that were aimed at poverty alleviation and did not provide individual funding to households. This was done through a once off 7,500 rand subsidy per site, modelled after the World Bank programmes (Khosa, 2000). The first of these, an IDT pilot scheme in 1991, allowed for over 100,000²⁰ people to gain access to serviced sites around the country. Site development was funded by the state (although actual physical development was done by private contractors) through a project linked subsidy and freehold tenure model, much like that which is used for the RDP and IRDP programmes. The subsidy included offering qualifying beneficiaries a free site with all basic services.

While all these projects were important mechanisms of housing delivery, they are frequently concluded as failures due to the slow, and at times non-existent, development which took place on the sites. Goodland describes how many of the IDT sites remained unoccupied as the poor could not afford to build (1996). Further, the poor location of sites negatively impacted on livelihoods, further dissuading occupation. The sites were often poorly received and were referred to as "I Do Toilets" or 'toilets in the veldt' (Jones and Datta, 2000; Khosa, 2000). For example, in Mohlakeng community, the provision of serviced sites was met with so much resistance that the first phases of a project had to be halted when violence and vandalism occurred.

This failure of the IDT site and service programme is generally attributed to the project's lack of consideration for the inability of the target group to affect its demand for housing (Adebayo, 2011). Jones and Datta argue that "almost no attention to the background of current financial difficulties

²⁰ There are many accounts of IDT sites. Bond speaks of the IDT committing R800 million rand to incremental housing from 1991; Adebayo states that 100,000 sites were delivered; in an excel sheet of total IDT housing projects provided by Ian Palmer, the total number of stands was listed as 88691 with only 79093 stands transferred.

within townships or squatter settlements, and few references to political conditions” were considered, in deciding upon a capital linked subsidy approach (2000: 399). Further, Nuttal argues that the outcomes of the IDT serviced site programme “succeeded in offending everyone from the World Bank to the directly affected communities” (Hannon cited in Nuttal, 1987: 180).

End-user participation in IDT projects was modelled after popular 1980’s international trends in incremental housing, namely mutual help, assisted mutual help, self-help, assisted self-help and community self-help savings and micro-credit schemes (Carey, 2009).

While the intentions of the IDT model were grounded in good intentions, a myriad of complaints were levied against its outcomes, namely:

- The model failed to make space for bottom up engagement and participation (Wilkinson, 1998). The standardised layout and delivery processes offered little room for real participation processes.
- The decision to provide serviced plots, rather than full homes, was met political backlash in a number of cities and projects. This was exacerbated by the lack of finance and subsidy tools for the construction of a top structure (i.e many people had no way of building their homes). Civic groups including SANCO and the South African Homeless People’s Federation referred to the site and service projects as ‘toilet towns’, noting the glacial speed through which consolidation actually occurred and the sterile environments often created (Ibid.)
- The use of consultants as project implementers was identified by Nuttal as a major site of conflict, not only because most of the implementers were often white, but also because they generally received very high remuneration for their efforts (Ibid.).
- The perpetuation of the apartheid city through continued social and spatial segregation was commonly cited (Huchzermeyer, 2001).

These concerns highlight the very political nature of IDT site and service provision. Beyond having some serious technical flaws (i.e. people often failed to build on their sites due to affordability issues), the politically contentious nature of the programme stalled the programme eventually bringing it to a halt. The importance of the IDT incremental housing experience in South Africa is two-fold. Firstly, the programme demonstrates the pitfalls of only supplying housing without considering the broader environment or incremental building support networks. Secondly, it is a reminder that project success is only partially contingent on policy design and political buy-in cannot be overlooked.

The transition in South Africa: a housing perspective

In the lead up to the 1994 democratic transition, the National Housing Forum systematically reviewed the history of housing delivery. The forum consisted of prominent housing stakeholders from “major political groups, parastatal agencies, and representatives of the financial services, construction and insurance sectors, and two NGOs” (Jones and Datta, 2000: 398). While well aware of the perceived failures of the past programmes, the outcomes of the review process and the subsequent and highly political debates firmly placed many of the IDT characteristics at the centre for the new delivery model, most importantly, the ‘one-off-capital-subsidy’ (Ibid.).

Despite this, there were some critical deviations. One of the primary differences between the RDP and the IDT sites was that the RDP house included a basic core unit. Shortly later, the Consolidation Subsidy was also introduced in order to build top-structures for IDT site recipients. As Jones and Datta point out, the RDP document states that, “as a minimum, all housing must provide protection from weather, be a durable structure, and offer reasonable living space and privacy” (2000: 394).

Over time, a variety of additional housing programmes emerged to further articulate the ambitious objectives set forth in the 1994 White Paper. Many of the programmes had features which can be classified as ‘self-help’ and incremental to greater and lesser extents. The following post 1994

trajectory of incremental housing sheds substantial light on how incremental housing was viewed, conceptualised and implemented in the South African housing policy (Adebayo, 2011).

Firstly, the ‘RDP project linked subsidy’ and the ‘consolidation subsidy’²¹ were intended to produce a core starter house, made to minimal specs and standards (Huchzermeyer, 2010). The original conceptualisation was such that it would be one room and would have no finishing. However, despite this intention, the RDP and (and now BNG) delivery mechanism developed in such a way that the ‘self-help’ element which were envisaged became increasingly non-existent. Tissington quotes Charlton and Kihato who argue that “by the late 1990s, the nature of the house to be delivered shifted from the open-ended concept of a “starter house” to a unit of a minimum area of 30m² and of defined specification” (Tissington, 2011: 61).

Secondly, in parallel to the RDP programme the Peoples Housing Process was launched (SERI, 2011). The Peoples Housing Process (PHP) is a generic term describing the on-going processes of self-provision of shelter and services by the poorest members of society in the developing world” (Urban Sector Network, 2003b). The purpose of the PHP was to assist households or communities which wished to enhance their subsidy amount with sweat equity and savings in order to improve the quality of the homes provided (Landman and Napier, 2010). The programme could be used in a variety of cases such as urban greenfield, rural, and informal settlement upgrading. To be clear, the PHP programme was not its own delivery mechanism. This programme was essentially a creative amalgamation of the existing subsidies with some additional support for PHP facilitators and the establishment of a support centre. While PHP (and now the revised EPHP) have has many success stories, on the whole, the programme has also squeezed out many of the elements of self-help and participation in attempts to upscale delivery.

Since 2004 there have been a number of critical advancements in the incremental housing programmes. Three important programmes emerged in 2004 including the Upgrading of Informal Settlements Programme, the Emergency Housing Programme, and the Integrated Residential Development Programme. The Upgrading of Informal Settlements Programme has the most potential to truly offer incremental options to municipal implementers. This programme allows for four phases of site development, a range of tenure options on both greenfield and brownfield sites, and unique support for social and technical support. More flexible than the project linked subsidy, the tool can be implemented in many ways and to a variety of ends.

However, even the Upgrading of Informal Settlements Programme, intended to take a fresh look at how to manage and work with informality in towns and cities, has been reduced to the building of RDP houses on previously informal sites. While it is clearly an improvement, it is hardly a victory for incremental housing proponents. Tissington writes “despite the progressive nature of BNG in offering a choice of housing options and a demand-driven approach, its stated intent to offer a greater choice of tenure, location or affordability has not been realised significantly to date.” (2011: 67). Many see the Upgrading of Informal Settlements Programme (UISP) as a way in which implementers can access new flexible funding to continue to produce the same product.

The Emergency Housing Programme, a mandate of the Grootboom court case²², is also an important programme to highlight. According to the 2009 Housing Code, Emergency Housing Programme “endeavours to address the needs of households who for reasons beyond their control, find themselves in an emergency housing situation such as the fact that their existing shelter has been destroyed or damaged, their prevailing situation poses an immediate threat to their life, health and safety, or they have been evicted, or face the threat of imminent eviction.”(9). The most common uses of the

²¹ The consolidation subsidy allowed for people who have received a serviced site to apply for funding to construct a top structure. There are many case studies of top structure building which took place through this subsidy and many of the subsequent PHP programmes used this mechanism.

²² This refers to the case of the State vs Mrs Grootboom regarding the forced eviction of Mrs Grootboom and other former residents of Oostenberg on the periphery of the Cape Metro.

programme are for basic materials replacement, on site transit camp construction and temporary relocation areas (TRAs),.

The IRDP also offers substantial scope for the delivery of subsidised plots to the GAP market (between 3,501 and 7,500 rand monthly income)²³. The policy allows for municipalities to sell plots to those who neither qualify for an RDP house nor can afford housing on the formal market. This policy development is still in its infancy and is further discussed in the section regarding specifically the Western Cape situation.

Conclusively, South Africa has a long history of incremental housing. The 2004 policy changes appear to offer useful tools for municipal implementers, however, the shift in practice has remained constrained by dogmatic delivery practice, by extension constraining opportunities for incrementalism and self-help to feature in projects. The following section seeks to understand these constraints more deeply by focusing on arguably the longest standing and most 'self-help orientated' incremental housing programme in South Africa, the PHP programme.

4.3 The (Enhanced) People's Housing Process

During the mid-1990s there were a number of experiments, funded by external donors, to support assisted self-help housing processes on IDT serviced sites. In 1998, the People's Housing Process (PHP) policy was adopted, drawing on some of the lessons of the Million Houses Programme in Sri Lanka, which is widely regarded as a best practice in the government support of self-help housing processes.

Linked to the policy, the People's Housing Partnership Trust, co-funded by UN-HABITAT and the United Nations Development Programme (UNDP), was established by the National Department of Housing to undertake the institutional capacitation of provincial government, local government and NGOs and CBOs to support people's housing processes.

The PHP policy provided funding for support for self-help processes to produce top-structures, either where beneficiaries already had serviced sites (consolidation subsidy projects) or as part of new greenfield or roll-over upgrading projects (project-linked subsidy projects). For each project a support organisation was selected by the households wanting to access the grant. Housing Support Centres (HSCs) were established for PHP projects as the major vehicles by which the self-help process was managed and implemented.

At the advent of the PHP, the two main grants to support PHP projects (in addition to the normal housing subsidy amounts) were:

- The Facilitation Grant (R25,000 – R36,000) for the initiation of a PHP project
- The Establishment Grant (R570 per household) for the funding of the Housing Support Centre

PHP projects were implemented in a variety of ways. In some projects, there was real involvement of beneficiaries in decision-making (this is often referred to as 'traditional PHP'), while some projects were developer-driven with limited involvement by beneficiaries in decision-making (often referred to as 'managed PHP') (Manie 2004). In traditional PHP projects, households would usually design their own houses and choose their own materials, but would often hire local builders to build the houses rather than do the actual building themselves. In managed PHP projects, the involvement of beneficiaries was often restricted to involvement in the actual construction process. In 2005, new PHP guidelines were formulated to accommodate the increasing prevalence of managed PHP.

²³ The Gap Market, according to Kecia Rust of the Affordable Land and Housing Data Centre includes those households who earn too much to qualify for a housing subsidy but earn too little to access affordable housing in the marketplace.

Although there were many successful projects that succeeded in building good quality housing and leveraging savings, credit and labour from beneficiaries, there were a number of problems with the PHP projects implemented in the first 10 years of the PHP programme including:

- Supporting self-help processes within the restrictive bureaucratic framework of the capital subsidy scheme proved difficult. A UNDP evaluation of the earliest PHP projects concluded that “the procedure is exceedingly bureaucratic, thus not easily controlled by communities themselves” (Huchzermeyer, 2001: 323). Marais (2008) notes that where NGOs were not present, community-based organisations were established by government to act as PHP support organisations, and in reality these were often government-driven and lacked community control (Marais et al, 2008). Real involvement in decision-making was particularly a problem in managed PHP projects.
- There was often a narrow interpretation of beneficiary involvement as sweat equity, i.e. involvement in the actual construction process (sometimes as unpaid labour for a contractor). This was an extremely narrow interpretation of self-help (the key characteristics of self-help housing processes is that the household is involved in making decisions about what is to be built and how it is to be built, and then managing the process, rather than necessarily actually physically undertaking the construction).
- When a mandatory household contribution of R2,749²⁴ was introduced for RDP housing, the PHP programme was often used to circumvent this requirement (as it stipulated that the household contribution could be met through sweat equity instead). Large numbers of conventional developer-driven housing projects were subsequently retrospectively converted into PHP projects in order to circumvent the need to collect the required contribution and save their projects from becoming blocked (Taylor, 2011). Thus the self-help element was being marginalised, and a “developer-driven process” came to dominate PHP delivery. In many of the managed PHP projects, “beneficiaries merely became labourers during the construction of their homes and were not directly involved in important decisions and processes” (Mani, 2004: iii).

In 2006, a group of concerned development NGOs and practitioners formed the PHP Reference Group, with the expressed intent of formulating and lobbying for the adoption of a new, enabling and community-centred policy (Carey, 2009). The National Department engaged with this Reference Group, leading to the adoption of the Reference Group’s recommendations as the Enhanced People’s Housing Process (EPHP) policy in 2008.

The main intentions of revising the policy were to focus on actual participation by beneficiaries and to widen the scope of involvement beyond just sweat equity, and also (to some extent) to align with the broader focus of BNG on creating integrated human settlements. The new EPHP programme was implemented from April 2009 onwards. As part of the policy overhaul, the People’s Housing Partnership Trust was dissolved and a new PHP Directorate established within the National Department of Human Settlements.

The main aim of the EPHP Programme “is to deliver better human settlement outcomes (at household and at the community level) based on community contribution, partnerships and the leveraging of additional resources through partnerships. This is achieved by developing livelihoods interventions which lead to outcomes such as job creation, developing a culture of savings, skills transfer, and community empowerment, building of community assets and social security and cohesion. EPHP enables and encourages communities to actively contribute and participate in the housing development process so that communities take ownership of the process and not just act as passive recipients of housing” (National Department of Human Settlements, 2009: 13).

²⁴ The mandatory R2,479 contribution was removed in 2010.

The EPHP Programme applies to the following situations (National Department of Human Settlements, 2009: 20):

- A demand led approach, where “communities have already organized themselves and want to participate in the housing process”, and then take their request to the municipality.
- A supply led approach, where municipalities allocate a certain percentage of land to the EPHP programme in their Integrated Development Plan (IDP)/housing sector plan, and then engage with communities regarding involvement.

In the EPHP Programme, a Community Resource Organisation (CRO), which has to be accredited by the Provincial Department of Human Settlements, is appointed by the community in consultation with provincial government to provide technical and administrative assistance to the community (National Department of Human Settlements 2009). The CRO can be a NGO, faith-based organisation (FBO) or a consortium of various stakeholders. The role of a CRO in an EPHP project includes setting up the necessary contracts and procedures, on-going management of the project, capacitating the community based organisation (which represents the beneficiaries), facilitating community participation and submitting progress reports in line with provincial requirements. The CRO is responsible for appointing a Project Manager to oversee the project, a Certifier to monitor progress and an Accounts Administrator to manage the finances.

As with the previous version of the policy, most of the support is provided through HSCs. The HSC staff members consist of Construction Controllers (CCs) and Community Liaison Officers (CLOs) (National Department of Human Settlements 2011). The CCs are responsible for assisting beneficiaries with house plans and setting out, organising the delivery of materials and monitoring construction and materials quality. CLOs are responsible for liaising with beneficiaries and for general office management.

The main funding mechanism for support for self-help processes (both project-specific and sector-wide) is the capacity building funding, which can be used for:

- Pre-project consumer education funding.
- Project-specific capacity building and facilitation funding (before, during and at the end of projects).
- Funding for building the physical structures to be used as HSCs.
- Facilitation and capacity building for the sector, including research and training.
- Funding for unblocking stalled PHP projects.

Beneficiaries need to contribute to EPHP projects in various ways. The two compulsory contributions by beneficiaries are “[t]ime, leadership, participation and ownership of the project by the community” and “[s]creening a CRO to work on the project with the community” (National Department of Human Settlements 2009: 31). In addition, beneficiaries need to also contribute in at least two of the following ways (National Department of Human Settlements, 2009: 31-32):

- Providing land which is collectively owned by the community or has been donated to them
- Savings contributions
- Top-up funding through “various partnerships forged by the community with other stakeholders (private employers, FBOs, local industry or a corporate through their CSI contribution, etc.)”.
- “Demonstrated knowledge or skills or expertise”.
- “Labour, not necessarily free (payment would be decided on a project basis)”.

- “Materials contribution (e.g. through setting up of brick-making yards, recycled material or through a donation from a supplier)”.
- “Special community initiatives related to and connected to the housing project/area such as inter alia community food gardens, community care, community based maintenance of the infrastructure, refuse collection, community gardens, maintaining public spaces and buildings etc.”
- “Bringing in community volunteers or employers (this could include student internships / learnerships, employer volunteers through “builds” etc.)”.

Although some EPHP projects continue to have problems with capacity and the time-consuming nature of participation, the advantage is that beneficiaries have a vested interest in making sure the houses they produce are of adequate size and quality, and are more able to be involved in the design of the house, thus encouraging the leveraging of savings and credit for making improvements. In addition, some greenfield PHP/EPHP housing projects have enabled communities to plan the actual layout of their neighbourhood based on community needs. In the case of the Netreg community in Cape Town, the plan of the settlement was able to incorporate issues of safety and security, social inclusion and maintenance, and allow for incremental extensions (Torkelson, 2009).

However, it needs to be noted that the quality of EPHP outputs are contingent on the skills and capacity of communities and the adequacy of monitoring by the HSCs. Success of projects often rested on the strength of the HSC and the skills and training of the staffed personnel. In many PHP/EPHP projects, houses were bigger and better than comparable contractor-built houses were built (both because of cheaper construction costs and increased leverage of savings and credit), but in some projects there were problems with quality (as was also frequently the case with contractor-built housing before the NHBRC was established). Moreover, while most EPHP projects retain many of the negative traits of typical RDP delivery with an over focus on top-structure delivery, in some cases, PHP/EPHP projects have empowered community-based organisations to become involved in broader development initiatives. These variations can be attributed to the strength and capacity of the HSCs to support and guide such processes.

The experiences of PHP/EPHP has important implications for the support of self-help processes. Although PHP/EPHP has often been difficult and time-consuming, where there has been appropriate support it has enabled good quality housing to be provided and has capacitated community organisations to be involved in broader development initiatives.

The key lesson from the PHP experience is that there needs to be adequate funding for the support services and for institutional capacitation at all levels. Support for self-help processes that are not funded by housing subsidies could potentially happen in a similar way (through CCs and CLOs employed at HSCs) but it would probably need to take place on an area-basis rather than a project-basis. Two of the weaknesses of the PHP/EPHP policies, however, have been that they have been overly bureaucratic and have had inadequate attention on interventions to strengthen self-help networks, and these would need to be addressed in the up-scaling of support for self-help processes.

5. SITUATING THE WESTERN CAPE

“[T]he Western Cape will] upscale the provision of serviced sites and reduce the number of houses built over the next four years in order to accelerate the provision of housing opportunities, especially to those most in need.”²⁵

5.1 Current incremental approaches in the Western Cape

South Africa is in the process of policy transformation. With nearly a decade since the launch of the Breaking New Ground policy, there has been substantial pressure to shift away from the existing delivery paradigm and embrace, among other approaches, more incremental housing models. The 2009 Housing Code identifies a number of delivery mechanisms which are described by the code as incremental housing options. These include the Integrated Residential Development Programme (IRDP) (previously the Project Linked Subsidy), Enhanced People’s Housing Process (EPHP) (previously the People’s Housing Process), Upgrading Informal Settlements Programme (UISP), the Consolidation Subsidy (intended to provide assistance for those who already have access to a serviced site; this was first introduced in 1995) and the Emergency Housing Assistance.

This suggests that there are many tools available by which to realise a shift in approach and that homogenous projects and ‘one-size-fits-all’ approaches are not necessary. In the Western Cape specifically, there are a number of initiatives which use these policies and intend to address the objectives outlined in Provincial Strategic Objective 6, National Outcome 8 and Breaking New Ground in creative ways. These initiatives offer insight into the diversity of approaches which make up incremental housing. These include:

Enhanced Site and Service Initiative

- The Enhanced Site and Service initiative extends the current ‘servicing phase’ include a ‘serviced core’ on each plot. The Province writes, “[a]t present the servicing of sites is funded by the Human Settlement Development Grant (HSDG), mainly under two instruments, the UISP and the IRDP. None of these instruments make provision for the funding of the installation of toilet structures and wash troughs.” Thus, the initiative provides an extra 8,000 rand for a serviced site with an enclosed flush toilet and wash basin. The site can be granted to qualifying beneficiaries or be purchased or leased from the municipality by those who do not qualify for the housing subsidy.
- It responds to the Provincial Strategic Objective 6 which suggests a focus on tenure security, basic service delivery, and informal settlement upgrading (Provincial Government Western Cape, no date).

Provincial ‘NUSP’ forum and the UISP

- The National Upgrading Support Programme (NUSP) seeks to support the various spheres of government in the implementation of the UISP programme. In addition to establishing a national task team and panel of experts (both of which draw service providers with both technical and social skills), NUSP has established a Western Cape Forum. The forum is dedicated to the continual improvement of informal settlement upgrading and incremental methodologies.
- NUSP claim that these forums provide the platform for a broader membership of stakeholders in the upgrading process. For example, the Western Cape forum includes representatives from an informal settlement network of community organisations”. This is an important space for

²⁵ Provincial Government of the Western Cape. (No Date). Developing Integrated and Sustainable Human Settlements. [Online] Available: http://www.westerncape.gov.za/Text/2010/8/human_settlements_objective_six.Pdf, page 7.

engagements and the sharing of social and technical ideas regarding partnerships, services, incrementalism, upgrading, and land issues.

- In the Western Cape NUSP is working in Cape Town, Drakenstein, George, Mossel Bay, and Theewaterskloof. Most projects are in the initial stages of assessment and categorisation of existing informal settlements, as well as creating development frameworks for informal areas. The NUSP forum is also considering a deeper exploration of incremental tenure models.

Access to Basic Services Programme

- The Access to Basic Services (ABS) programme aims to ensure that “everyone in the Western Cape has access to basic services by 31 March 2014, according to the national minimum standards for access to basic services.” (South African Government Information (SAGI), 2012).
- ABS uses the Emergency Housing Programme to offer basic, and often temporary, services in informal areas. It is encouraged that these services be incorporated into formal delivery processes in the event that upgrade takes place. However, there is not currently a programme to ensure that this takes place. Once basic services are achieved, there is little clarity regarding the next steps in the upgrading process. It is assumed that other programmes (such as the UISP), would take over the upgrading process.
- According to the 2011 Census, the Western Cape is performing extremely well in terms of basic service delivery with only 0.9 per cent of households lacking access to water taps, and 6.6 per cent lacking access to electricity.

Enhanced People’s Housing Process programme

- The need to address corruption, poor quality, and slow delivery in the PHP projects has led the Western Cape to define implementation guidelines for the EPHP programme. These guidelines focus on achieving higher levels of accountability in the project spending by increasing the role which municipalities play in the process. Examples of this include establishing a central database of credible suppliers, contractors and facilitators and ensuring that appointments are made in terms of the Supply Chain Management Procedures. Project quality is to be achieved by registering all acceptable construction companies with the National Home Builder Registration Council and the establishment of an additional grant for the funding of an external facilitator (personal communication, Thabata). Furthermore, the guidelines are aimed at improving efficiency. For example, it is envisaged that a Housing Support Centre will serve a number of projects in the vicinity of each other, and not merely one.
- While not necessarily making the projects more incremental (i.e. self-help and sweat equity are not addressed), the shift does attempt to bring higher levels of participation into the process and enable smaller builders/contractors and NGOs to play larger roles in the delivery process.

Free or subsidised serviced sites for the GAP market

- In the City of Cape Town there have been attempts to offer subsidised sites to the GAP market. While this process has been slow, there is a growing recognition of the importance of addressing the GAP market and offering incremental housing solutions for them. Recently, the new Cape Town Integrated Zoning Scheme has included a residential zoning for incremental housing complete with rules and guidelines for land management (personal communication, Abrahams).
- In Ilitha Park in Cape Town, sites are sold (at very low prices) and the household was required to build within two years (personal communication, Kuhn). The household was offered a choice of developers to build the top structure. Most of the households received

finance from the banks. City officials and the banks (as bondholders) ensured building quality through regular visits to the site (personal communication, Grobler).

5.2 Comparing practices

South African examples

- While the Western Cape is pursuing incremental housing with vigour, other cities and provinces have also joined the incremental housing debates. Many cities and provinces are implementing incremental housing programmes which use a site and service and upgrading²⁶.
- In addition to a number of hostel upgrading and *insitu* informal settlement upgrading programmes, Johannesburg has recently launched a thirty-year pilot study by which to test incremental housing projects (personal communication, Khan). This project is a site and service project which caters to those who do not qualify for housing subsidies. In these projects, the city and province sell plots at below market value to those who need to be relocated from existing informal settlements to make way for upgrading projects (Disposal of Serviced lands Guidelines Report, 2012). In these serviced site projects beneficiaries will be expected to build their homes in 24 months and local officials will be specially trained to support this process.
- In Kwazulu Natal and eThekweni, the city and province are conducting a few housing projects which are site and service. These projects are only for the GAP market (personal communication, Misselhorn). Using the Integrated Residential Development Programme they are attempting to facilitate access to formal, freehold, conventional housing for those who otherwise are excluded from both the housing market and the existing subsidy programme. EThekweni also offers an interim basic services programme much like the access to basic services programme. This programme has been very effective in addressing the most basic needs in informal areas.

²⁶ The following examples focus on the 'site and service' projects being launched in other cities. This is due to the structure and nature of the interviews conducted. There are other projects which fall under UISP and PHP which have not been addressed in this section.

- In the Eastern Cape, there are two ‘mega-projects’ currently under way which were identified as pilot projects in 2005 at the initiation of the UISP. The Duncan Village Redevelopment Initiative should see completion at the end of this year after a long struggle with process and alleged corruption and combines *insitu* upgrading with greenfield development and Temporary Relocation Areas (TRA’s) for de-densification. The Zanemvula project is ongoing and uses the same methods but with the added complexity of a ‘Rectification’ component for the Soweto-on-Sea area of the project which seeks to order plots and layout to assist with infrastructure installation.
- Most cities in South Africa still struggle to understand incremental housing. Both in the informal settlement upgrading projects and in the serviced sites projects, there is often superficial engagement with incremental principles and self-help concepts (personal communication, Abrahams). Despite a progressive set of policies in the country, decades of RDP style delivery has left many municipal implementers perplexed by alternative delivery modalities.

International discourse on incremental human settlements

- International best practice advocates for involved informal settlement upgrading programmes which offer both *insitu* and greenfield options. However, in the international literature, site and service options are mainly sold to households (which are targeted based on their savings ability) rather than given for free (see case study of Kenya and Chile in Annexure 3). In considering which Western Cape programmes should be targeted at which households, care should be taken to ensure the appropriate response for each income level. It is likely that different income groups and demographics will have different needs in terms of an incremental housing policy.
- The effective demand for housing, rather than simply the supply, is now seen as central to housing delivery debates (personal communication, Napier). Increasing households’ effective demand (i.e. willingness and ability to pay) is critical to all housing approaches, particularly to incrementalism. Thus, key thinkers in the human settlement debate argue that the entry point for truly embracing an incremental approach would need to be an appreciation for the livelihood strategies, networks, identities and the life chances of poor people (UN-HABITAT, 2003). Any incremental programme or policy needs to be designed around the needs and demands of the poor for housing, work and social engagement.
- Part and parcel of the incremental ideology, there is a growing understanding of the value of working with, rather than trying to eradicate informality. Existing planning standards are too high for both upgrading and site and service to work (Pieterse, 2008; Berner, 2010). Globally there is a push for new land planning regulations which are more responsive to the needs of the poor (i.e. Namibian flexible tenure, Mozambique pro-poor land legislation.²⁷ Both UISP and Enhanced Site and Service initiative would be served by a clear understanding of safe, appropriate, implementable and functional regulations.
- Integrated approaches to housing delivery are central to housing and planning best practice. Moreover, the building of inclusive cities is central to recent upgrading debates which hinge on the need to address both social need and spatial fragmentation (Kitchen and Ovens, 2008). Therefore, beyond questions of housing, issues of land and land access are central to all housing debates. Incremental housing is particularly difficult to integrate due to the perceived divide between formal and informal areas. While NIMBYism often resists all low income development in wealthy areas, more so does this apply to incremental housing as it is often perceived as sub-standard. In a haste to address the quantity of housing opportunities demanded, it is essential to ensure that the existing spatial form is not perpetuated.

²⁷ Cities Alliance argues that there is an urgent need for planning reform in Africa. <http://www.citiesalliance.org/urban-law-reform-bellagio-communicue>

6. INCREMENTAL HOUSING: A RETHINK

Implementing incremental and self-help housing models have been a challenge globally. They have often not achieved the desired scale needed or the quality of both housing and living environment which was hoped for (UN-HABITAT, 2005). Summarily, many of the said ideological benefits have failed to be realised. Despite this, there is a timelessness of incremental housing debates. We return to discussions of incrementality in the housing discussion regularly as a retort to the failures of state-led mass scale delivery. This is perhaps because housing development more generally exhibits many incremental characteristics and thus implementing incremental housing can be seen as a shift rather than an overhaul of the existing paradigm. For example, most (owner occupied) houses extend and develop over time. They generally use some household contribution towards the development of the unit, financial or otherwise. Thus, the question is less about whether we *should* or *should not* support incremental housing. The question is rather *how*, given contextual specificity, can we functionally support the incremental and self-help process as one of many housing strategies.

Incremental housing continues to be an ideology which struggles to be converted into a ‘state-led’ and ‘programmatically’ response. This is precisely because informality and appreciation for informal processes are at its very core – accepting long time frames for formalisation and unpredictable development patterns are challenges for all urban stakeholders. Moreover, it requires investment by the state outside of the domain of housing often towards outcomes much less easily accounted for. The process through which incremental housing is developed often does not fit neatly with budget cycles, subsidy quanta, and political terms. In addition, the accountability metrics through which success is gauged often takes short term views with a focus only on the construction of housing units. This often fails to acknowledge the long term achievements which may have occurred.

Thus, unlike a ‘finished product’ housing model which can more easily be achieved through mass scale delivery, incremental housing requires engagement on a number of more complex fronts, including informality and temporality. This is particularly true in South Africa wherein provincial and municipal officials remain perplexed by incremental and informal processes. Moreover, in implementing an improved incremental housing approach in South Africa, there is a tension between longer term investment in what Omenya refers to as the ‘self-help network’²⁸ and shorter term and more direct investment in particular phases of projects. Investments in networks tend to address issues of scale and strengthen the broader delivery landscape such though land rights, construction industry, the financial tools and the land markets. On the other hand, individual project foci are more targeted, ensuring that particular households are assisted. In South Africa, where highly dysfunctional markets exist amidst deep poverty, both approaches may be necessary.

Omenya’s ‘self-help network’, combined with Greene and Rojas’ ‘phases of the incremental housing process’ - land access, construction of the core nucleus and incremental improvements to the structure - are important and interlinking concepts as they allow for the specification of different state functions in different phases, scales and systems. Similarly, we have segmented the discussion into phases and, wherever possible, included reference to the strengthening of the ‘self-help network’ as a means by which to upscale and systematise the process. This is a very basic attempt to highlight to concerns, gaps and opportunities at various steps in the process. Moreover, it is an opportunity to consider where more research, guidance and participation are needed towards the formation of an improved incremental housing approach.

²⁸ Omenya’s concept of a “self-help housing network” is described as “[the] complex system or web of relationships, among actors and agents, through which various resources such as land, finance, information, labour, infrastructure, services, technology, etc. are exchanged for the primary purpose of production of housing through self-help”.

Phase one: addressing land and planning

This phase specifically looks at issues of land including how sites are chosen (i.e. location), how the site are designed including the layout of housing and other amenities, how plots are allocated to different housing market segments and demand profile groups and how rights to plots might be held. In particular it is necessary to ensure that community registration processes are institutionalised to secure tenure and back transactions on the site.

This is the first phase as it generally takes place before site occupation (unless it is an *insitu* project). These decisions both ground the project in physical space and create the administrative pathways which will later be formative in the development of the settlement.

Phase two: the core site inputs and designs

This phase is often a phase of intensive investment on the site and in the neighbourhood. While the core site inputs might range from simple basic services all the way to a starter house, this period of provision requires organised engagement and guidance at the project level including the provision of skills training, education, construction support and potentially the organisation of small contractors.

While it may overlap with Phase 1 or 3, what differentiates Phase 2 is the scale, speed and intensity of state guidance offered over this period. This is also the period where strong infrastructural investments in the public realm are implemented so as to create a conducive environment for Phase 3's household driven incremental process.

Phase three: incremental consolidation

This phase is the prolonged construction, extension and adaptation of the house (perhaps over generations). This requires different modes of finance, state engagement and regulation compared to that of the core site inputs. In particular, it requires the availability of microfinance instruments and savings groups as well as zoning schemes and building regulations which are appropriate for incremental housing.

In Phase 3, the speed of development is driven more directly by the household rather than the project. The scale through which the state works to guide the development of the settlement is at the (geographical) area scale rather than specific to projects.

6.1 Phase one: land and planning

Land and planning are basic elements of all housing projects. They are also features which need to be guided and institutionalised by the state. Choosing a location, designing a layout, allocating plots and choosing an appropriate tenure arrangement are all critical features in this process. These will be formative features in the development of the site over time and lay an important foundation for future growth.

Location: do we understand the impact?

The poor location of serviced site projects is often presented as one of the critical features of incremental housing failure. It is generally suggested that low income housing generally should be connected to the existing urban fabric. The dominant housing and planning thinking suggests that by locating incremental housing projects in better locations, the likelihood of a household investing in that site is higher (Urban LandMark, 2011).

However, in South Africa, there is a mismatch between the Breaking New Ground enthusiasm for well-located housing and the actual delivery patterns. This suggests that achieving more integrated settlement patterns is difficult in practice. In recent research by the Finmark Trust suggests that,

location may be less of a factor in terms of stimulating investment²⁹ (Shisaka, 2011). The study argues that many households invest regardless of location, rather citing lack of money, tenure insecurity, owning of houses elsewhere (often in rural areas), and the expectation that the state will upgrade their structures, as reasons for low levels of investment. This suggests that deeper questions regarding affordability, incentive, security, and household priorities may underpin debates about locational value.

Future research would be necessary to explore the discrepancies between the CAHF's suggestions and that of the dominant thinking. Moreover, there is a need for research regarding the actual options and constraints to integrating settlements, the cost versus benefit of 'creating' well located areas for incremental projects through public investment and the locational differences between cities and towns.

Tenure debates: what is best for incremental projects?

Tenure describes the way in which land is claimed. Land tenure is an institution and thus it is made up of rules which govern social and individual behaviour. In essence, tenure is an agreement among people regarding particular rights over land and residential property. These agreements are governed by frameworks which may be legal, administrative, or social³⁰. Tenure security - defined as the absence of threat of eviction or forced removal - has come into the international spotlight in the last two decades as an important aspect of adequate housing (Handzic, 2010).

Rather than trying to prove one tenure typology is better than another, the ultimate goal of tenure security efforts in developing cities is to secure and protect the rights of the poor to exercise the 'use value' of their site in the short to medium term (Payne et al. 2009). Tonkin writes "[t]enure choices must be guided by the advantages and disadvantages of various tenure forms and its applicability to particular community contexts and income levels", further noting that there is no 'technical solution' to the tenure debates (Tonkin, 2008).

Freehold tenure is the highest form of right which one can hold over property. There are many proponents of the freehold tenure model. De Soto argues that granting freehold tenure to the poor enables the poor to constructively utilise their otherwise "dead capital" (2002). He argues that refusing to grant freehold title limits the ability of the poor to capitalise on their assets thus further disadvantaging already marginalised people. However, both de Soto's claims and the subsequent enthusiasm for freehold land titling for the poor have been refuted by academics and professionals in the field of housing, land, rights, and poverty alleviation (Payne et al. 2009; Otto, 2009). On the basis of empirical work conducted on developing cities, many tenure specialists argue that:

- Freehold tenure has often led to 'market down raiding' of the poor who have not been able to resist market pressures and are thus forced to sell their plots (Huchzermeyer, 2001). (Varley, 2002; Payne et al., 2009).
- Since freehold tenure is expensive and cumbersome, when plots are sold, they are often done so informally and illegally. Thus, the state loses the ability to track owners and occupants and cannot enforce rates and tariff payment. Thus, freehold title can undermine the existing cadastre system and cause substantial problems. This means that freehold tenure cannot be seen as a 'hand off' approach for municipalities.
- The majority of research suggests that capital asset transfer for the very poor needs to be embedded in more comprehensive poverty reduction programmes rather than being seen as the final goal (Moser, 2008; Payne et al., 2009).

²⁹ Note that this study was undertaken with RDP houses and not with serviced sites. Thus outcomes may be different.

³⁰ Definition is adapted from a number of thinkers including Durand-Lasserve, 2006, 2; Williamson et al., 2010; UN-HABITAT 2010; Payne, 2004

Flexible, incremental and adaptive tenure systems are being developed globally and locally to address these concerns (Khan, 2003). In South Africa, the Upgrading Informal Settlements Programme allows for the use of incremental tenure modes (see section 3.14 of UISP programme). Urban LandMark has developed the Tenure Security Approach, a phased approach to securing land rights (2009). The Namibian National Government has recently developed a parallel system of land rights which is less cumbersome than the existing approach (Christensen, 2004; de Vries et al., 2009). Global Land Tools Network (GLTN) is working to develop the Social Tenure Domain Model which offers a pro-poor mapping and rights instrument (Lemmen, 2010; Deininger et al., 2010). In addition, there is a substantial body of international literature which stresses the value of decentralised land management systems through localised land registers (Cotula et al., 2004).

While non-freehold models are being used in many developing cities, the strength of alternative systems is greatly dependent on the state's ability to address some critical administrative challenges (Toulmin and Quan, 2000). The following administrative challenges mark flexible approaches:

- When beneficiaries do not receive freehold title, the state is then responsible for extracting rent and maintaining the premises and a variety of other duties.
- For state bodies with low capacity or willingness to offer on-going support and engagement with housing development non-conventional tenure becomes an issue.
- Additionally, running parallel system of administration offers significant challenges for the integration of rights registers including conflicting rights and contested resolution processes.
- When not using legal rights, there may be disputes which arise as to whose rights are legitimate. This requires new tools for rights management and platforms for negotiation.
- Community capacity to manage a localised land rights register is limited and often puts undo pressure on community members. The local municipality is thus responsible for on-going tracking or the establishment of an auto-updating system as well as clear communication as to where and how to transfer rights. This additional state responsibility requires new types of capacity and engagement.

Despite these challenges, the limitations of freehold models are such that it is worth exploring the tenure options which exist for incremental development. These options could offer nuance to the development of projects which better fit local capacity of communities to manage and utilise rights to tenure forms granted. Offering a range of tenure options (potentially on one site, as suggested below) ensures that incremental housing projects align with the unique capabilities of households.

Allocation mechanisms

Diversity on the site is not only important in terms of options for tenure, but also in terms of ensuring that a mix of demographics and user groups are addressed. With the growing support for integrated residential development in the South African policy³¹, there is the possibility of using a variety of delivery mechanisms to create diversity in settlement areas (Landman et al., 2009; personal communication, Smit).

- It is important to identify the 'range of user groups' which will have the ability to improve their life chances through these products. In interviewing local government officials, a number of potential groups were suggested including the gap market, informal settlement dwellers and back yarders who do not qualify for the housing subsidy, subsidy qualifiers who have managed or are willing to save and invest, and small scale entrepreneurs who engage in pretty landlordism. There are a variety of different potential allocation mechanisms which could be worked through further including:

³¹ The IRDP allows for sites in a project to be allocated based on a variety of criteria. Some sites may be bonded while others are offered at subsidised rates at no cost to beneficiaries.

- Sites for rent (already available in the Enhance Site and Service framework and UISP)
- Sites for temporary accommodation (such as the Emergency Housing Programme allows)
- Sites for subsidy qualifiers (possibility based on savings or other qualifying features)
- Sites for basic purchase and occupation
- Sites for collective purchase and communal ownership
- Larger sites offered for informal rental stimulation on a loan and subsidy basis

While a variety of allocation mechanisms will complicate the project, it is also an opportunity to design diversity into the settlement fabric and the address the varied demands of the urban poor and lower middle classes. Likewise, the allocation mechanism allows for a more mixed income area to be developed – within reason and in a well-designed format.

Many municipalities are already using IRDP to rent out some project plots while granting title on others (often those who qualify for the subsidy will get title while those who do not will rent). In addition, the UISP allows for a variety of more nuanced tenure options. Thus it is not outside of the policy scope to intersperse allocation mechanisms in single projects.

Layout design: a community building perspective

Sustainable human settlements are more than housing or shelter (UN-HABITAT, 2003). They are the networks, pathways, movement corridors and channels through which people negotiate their lived environment (City of Cape Town Design Services, no date). Smit writes “the overarching meaning of an integrated approach to development is that physical development should always occur as part of a broader social and economic development strategy aimed at addressing poverty.”(2004: 5) Thus there is a need to plan more than just the housing units into the layout and design.

While all housing development are ultimately features of the entire city and urban network, a closer look at incremental options requires the design of two particular scales:

- Plot scale – size and shape of the plot, location of services/ core on the plot all influence the cost of services and the extendibility of structures (CSIR, 2000).
- Neighbourhood scale – patterns of plots in an area, transportation routes and public infrastructure should respond to the demands of the urban dwellers rather than generic and assumed needs. These can be designed into a General Plan for the area which may include particular zoning for relevant land uses, title typologies, and development parameters.

As poor people and their needs are not homogenous, a multipronged approach which seeks to both maximum *choice* as well as *reduce poverty* is a good starting point. Some of the factors which may influence the plot and block level designs are:

- Desired future housing typologies and cognisance of the mix of potential typologies. Creating diversity on a site through varied typologies of housing (Tonkin, 2008). The layout of the basic services and core unit on the site will greatly impact on future extensions of the house (Development Action Group, 2003).
- Service costing (i.e. situating cores at the back of the plot offers more privacy but costs more in terms of piping than running it along the front of the block) (Behrens and Watson, 1996).
- Creating a mix of public, semi-public, and private spaces through the layout designs (i.e. shared court yards, front yards, back yards, location of core block etc.) (ibid.).
- Supporting livelihood, informality and planning for enterprise, back yard dwellings and second dwellings, small businesses, and mixed use, health and safety, and proactive guidance through public realm investment (City of Cape Town Urban Design Branch, no date).

6.2 Phase two: the core site inputs

The 'basic core' is a flexible concept which includes a range of options spanning from the most rudimentary toilet and tap to the provision of a fully habitable basic living unit (Napier, 2002). The core (sometimes referred to as the 'basic housing nucleus') exists on a continuum with the possibility of many actors playing roles in its provision (Greene and Rojas, 2008). In South Africa, the core unit has generally been delivered through the state to date.

Services

Services and top structure housing provision in South Africa have often been linked (personal communication, Palmer). However, decoupling services and infrastructure from the provision of top structures is becoming easier with new incremental housing tools. Services and infrastructure are generally delivered by the state in order to integrate and align new settlements with existing urban fabric and services (McDonald and Pape, 2002). While there are increasing reports of cases wherein service delivery follows (often informal) settlement, on greenfield sites, services are generally provided before site occupation as it is very difficult to retroactively lay services (personal communication, Taing). Wakley and Riley argue that the most important basic services issues to consider include (2011):

- Timing, standard and level of infrastructure are all decisions which must be carefully thought through in a project's design.
- The initial capital investment of these services and also the on-going maintenance (including tariffs and fees).
- Impact on extendibility, future subdivision, and the accessibility of services for backyard renters (this is an important issue as most core designs situate the services within the initial structure making them inaccessible to back yard rentals).

It is now generally agreed that, where possible, services should be delivered to a high standard and with additional capacity for growth (Cities Alliance, 2011). This is because:

- Incremental housing areas generally densify over time with many households and structures sharing a plot. Planning ahead can alleviate future overcapacity issues (personal communications, Williams).
- Empirical evidence from upgrading projects suggests that retrospectively attempting to input services has been problematic and complex (personal communication, Faure).
- Low levels of service delivery are often associated with inadequacy and 'incomplete' delivery thus being less accepted by communities (personal communication, Hyman).

Furthermore, there is a need to consider the finite nature of the resources. Environmentally sensitive models have yet to be attempted at scale, however there is a growing awareness of the importance of considering the sustainability of the delivery modality. The case of the I-Shack Developed by the Sustainability Institute³² is an example of cost effective and sustainable service delivery which may be upscaled in the coming year.³³ By providing infrastructure to accommodate formal and informal plot subdivision which is likely to occur on the project site over time the municipality can likely help to alleviate future capacity issues in the area.

³² The iShack is a design project to develop an ecologically sustainable and upgraded shack. They create a safe electricity supply by installing direct current (DC) photovoltaic (PV) solar microgrids. There are additional waste removal features.

³³ In the Development Action Group and Urban Sector Network (2003a) review of the Housing Subsidy Scheme they find that households often occupy their site and begin to build extra rooms for let very quickly.

Core options

While some incremental approaches only include basic service provision, others may include basic core units. In a study on core housing, Napier argues that “[i]n practice, many different types of partial housing emerged [in South Africa]. They can be grouped into three main categories:

- Houses which [include] all the main built components such as foundations, walls and roofs, and therefore were habitable from the outset;
- Houses which [have] one or more of the major built components missing, and therefore usually required some input by residents before being habitable; and
- Service cores/ wet cores, which [house] the wet services such as water supply, sanitation and drainage, and sometimes energy supply.” (2002: 2)

Houses		Services
Habitable core house	Non- habitable core house	Service cores
<ul style="list-style-type: none"> • Starter house(sub-dividable) • Core unit Multi story core/ reinforced frame 	<ul style="list-style-type: none"> • Floor or slab house • Wall or frame house • Roof house • Shell house 	<ul style="list-style-type: none"> • Wet core • Service core • Utility walls • Service points

Each of these options has different requirements in terms of design, building, management, and finance. While some cores are seen as a precursor to the self-help process (i.e. a serviced plot with only a tap), others are designed to be achieved through self-help.

The design and placement of the basic housing unit will determine:

- The cost (of servicing and extension)
- The role of the state, private sector, and household in the building and management process
- When and if the plot can be subdivided and shared (backyarders, multifamily etc.)
- Extendibility, character and improvability on the site

There have been many plot level serviced site diagrams developed by NGOs, urban designers and planners, aid organisations and government organisations. On each plot, different layout designs for basic infrastructure arrangements will greatly impact on the extendibility of future structures for each household³⁴. Many of these models have substantial merit and offer insight into the many ways in which core placement can impact on future extendibility.

However, these models are not enough to ensure a functional process. Beyond questions of basic design, additional types of support are necessary to ensure that the core is a functioning element of the incremental housing model.

Building the core

The process of building the core will depend primarily on the choice of core option. For example, if only a ‘wet core’ is envisaged than it might be more efficient to simply bring in a contractor to build for the entire project. On the other hand, if a full core unit is to be built, then a process much like the South African Peoples Housing Process might be needed.

³⁴ For examples of this see DAG Housing Options Manual, Tipple’s Extending Themselves, MIT’s Incremental Housing website at web.mit.edu/incrementalhousing/

There are many iterations between these two extremes which require unique management structures. Options for building might include various self-help typologies such as (adapted from various PHP and self-help documents)³⁵:

- Self-built (known as auto-construction in Brazil and other Latin American countries). This may be built by the home owner and their support network or by small contractors who may be formal or informal. Self-build is often also referred to as ‘unassisted self-help’ as there is generally no support offered by the state and households are left to their own devices.
- Assisted self-help (also known as institutionalised self-help). This often requires the state to play some role in the building process ranging from the organisation of or provision of sustainable material depots, alternative hardware stores, cooperative formations, building support centres, consolidation subsidies and others. In most cases these centres are not run by the state and are privately run with some state oversight. Mutual build, wherein collectives are formed and managed build each house, would be one type of assisted self-help
- ‘Managed’ housing delivery: wherein some level of sweat equity of household contribution is offered, however, the building takes place through a formal developer or company often contracted by the state.

Managing and financing the core process

It is generally agreed that the state, in conjunction with the local community, should play some role in ensuring that the core unit is built to an appropriate standard and in such a way that the eventual outcome aligns with development goals of the site and area (Greene and Rojas, 2008). This requires continued engagement throughout the core provision phases of the project.

The intensity and scale of support offered during the core building phases will differ from the subsequent incremental extension process. For a core unit, there is generally a set timeframe by which the basic elements of the site must be erected. The state and the occupants generally agree on this time period and each plan accordingly (personal communication, Smit). While simple ‘wet cores’ may be delivered by an assigned contractor, if the core is to be a full or partial structure a local office (at the scale of the project) is necessary to guide the development process. These offices would serve as platforms through which advice, education, and information can be disseminated. This would generally be established at the project scale so that the project can receive tailored inputs, the establishment of which requires both funding and careful allocation of responsibility (see PHP experience).

The core process might be financed by subsidies, micro loans or savings. However, despite these many options, there is still deep debate regarding the affordability of self-help models for poor households in South Africa (personal communication, Metzler). While Kihato argues that ‘appropriate finance’ is the key to realising the self-help, Rust (personal communication), reminds us of many of the continued financing challenges; debt can plague a family which wishes to upgrade incrementally and some families might have priorities to invest in other social necessities in the short to medium term. While many households are able to save, they do so at such a pace that their house remains informal for long periods (sometimes indefinitely).

Another important issue to look at in terms of financing is the assumption that beneficiaries will be able to leverage their plot as collateral by which to receive finance through banks. Reality suggests that banks continue to be wary to use plots offered as collateral by the very poor. Reasons for this include:

- Poorly located plots have little value and the cost of resale may be less than the loan value
- The eviction and repossession process can be costly and politically sensitive

³⁵ Adapted from Ward, 19982, Payne, 1977, UN Habitat, 2011, Ntema, 2011

- The poor are wary to collateralise their lending out of fear of losing their assets
- The poor who do not also have sources of income which are consistent and sufficient to service the loan are likely to default

This does not mean that the poor have no options for savings or finance (Baken and Smets, 1999; Ferguson, 1999, 189; Smets, 2004). Rather, it suggests that a deeper engagement with financial and economical capacity is necessary if we are to better design incremental products for the diversity of poor households which require it. Greene and Rojas further argue that one of the largest failures of site and service projects internationally has been the inability of households to build the core housing unit and inhabit the site (2008). Thus, the careful placement of subsidies as well as targeted and intensive support during the initial building phases is necessary if site habitability is to be achieved in a decent timeframe.

Public investment

Perhaps more importantly than the household or plot level investments, there is a growing narrative on the benefits of strong public investments to complement less prescriptive and state driven housing delivery. Concepts such as the ‘one house walk (bale) city’ (Osman) and the BKAI’s ‘bottle and crate’ analogy to human settlement investments draw on these conceptual underpinnings arguing for urban designs which offer spatial, location and infrastructural value to beneficiaries. Beyond simply public space, emerging urban thinkers highlight the importance of public infrastructure (including schools, clinics, churches and the like) needs to be taken more seriously by planners, architects and urban managers alike who should rather be searching for and designing networks of investment which support and leverage one and other (persona communication, Nhero).

A variety of cities have also gained international attention from their ability to transform the social injustices built into the often post-colonial fabric of their infrastructure through intentional and aesthetic state investments in the public realm. In the City of Cape Town, the Urban Design Branch argues for “improve the living conditions of the poor and support the livelihood strategies through strategic investment in the public realm and by recognising and responding proactively to informality.” They further offer a set of design principles for the investment in the public realm which specifically respond to informality including prioritization of health and safety, planning for enterprise and proactive guidance and response. There is, however, still substantial research which needs to be undertaken to figure out exactly what the necessary ‘bundle of public investments’ includes, who is meant to fund and deliver it and how it should be spatialised.

6.3 Phase three: incremental consolidation

The incremental nature of housing projects rests on the ability to develop and extend, in a relatively functional and positive manner, over time. This extension process takes place in alignment with the ability of households to save and/or repay small load amounts (Greene and Rojas, 2008). Thus the process begins when the core inputs (be it basic services or a full starter) are finished and may never end. Incremental consolidation is the phase of incremental housing which requires the least intensive state support and organisation. However, some basic guidance and regulation is still necessary. The following are some ideas where strategic state guidance is suggested.

Building standards

One of the critical debates in the self-help discussions is the building standards for the housing construction and extension. The building standards for incremental projects are often moving targets. Each country and city has its own standard of what is acceptable and desirable (Watson, 2011; Huchzermeyer and Karam, 2006).

The most common argument is that formal is presented as the ‘good’ way to develop whereas ‘informal’ is seen as bad, unsafe, unregulated and illegal (personal communication, Underwood). However, at the opposite end of the debate, many liberal and radical thinkers see incremental,

informal and vernacular development as a space of necessary creativity and ingenuity (See De Soto, 2002 on dead capital; Simone, 2004 on vernacular practices; Holston, 2009 on democratic citizenship; and Rakodi, 2007 on locally driven subdivision). It draws on what Burgess refers to as ‘artisan self-help’ and enables households to drive their own development process (1985).

In reality, the distinction between what is and is not formal is simply a legal and statutory claim often backed up with little justifiable evidence of superior outcome. Roy and Huchzermeyer outline the ways in which many high income settlements in Kenya and India qualify as informal dwellings because of their lack of conformity with planning regulations or procedures (Roy, 2009; Huchzermeyer, 2010). Meanwhile, many informal dwellings built out of more traditional materials are actually of superior quality than that which may be formally offered by the state (the case of the RDP house is a good example).

Thus finding the appropriate balance of regulation and guidance is difficult and often requires a level of flexibility (Alsayyad, 2004; Myers, 2011; Pieterse, 2008; Ferguson and Navarrete, 2003). This may require particular guidelines, zoning schemes and enforcement measures which respond to the particular risks, hazards, and opportunities of the area and community. In South Africa, alternative zoning schemes which take cognisance of informal and incremental processes are already underway. In the City of Cape Town, the Integrated Residential Zoning Scheme includes a Single Residential 2 zone which seeks to do this. In Johannesburg, Transitional Residential Settlement Areas even offers a ‘right to occupy’ license, thus allowing for a variety of tenurships. These policy developments are important markers of recognition representing a new support for guided incrementalism.

How to build

Unlike the core inputs phase, the incremental consolidation process is primarily driven by the household. The strength of the incremental consolidation rests on the ability of the household to save and access materials for construction as well as the strength of the informal and/or affordable building and construction sector. While some building may happen through an organised programme, a recent Finmark trust study suggests that much of incremental consolidation takes place at the pace of the household rather than through organised programmes (Shisaka, 2011). Thus, the strengthening of both savings networks and the affordable construction sector are essential elements in supporting the ‘self-help network’.

The state can work to support these processes in a number of ways. A study by Finmark Trust entitled the RDP Asset Study (2011) and the study by the Development Action Group (2003) entitled “Review of International and National Trends and Best Practices in housing” suggest the following support roles which could be played by state actors:

- Designing and implementing a **mass production project to supply building parts** including windows, doors, etc.
- Improving **skills and capacity in the building sector** including outlets for materials and building support including building support centres, material depots, bulk material suppliers, and others.
- Designing **flexible and appropriate building guidelines and technical support** including alternative zoning schemes and clear building guidelines.
- **Registering and supporting informal building and construction companies** who may have existing, though often dysfunctional supply chains, for material and labour.
- Streamlining and **preapproving particular building plans** which households can follow (and link to particular material packages or construction companies).
- **Registering addresses and plots** to facilitate the microloan process (according to a Finmark study, it is much easier to access finance if you have a permanent address).

To monitor the on-going incremental consolidation process, a partnership approach may be useful. While project based monitoring and specific committee establishment is necessary during the core phases, a partnership between the community and the city with local officers covering broader geographical areas may be sufficient for the incremental consolidation phases. Based on his experience working on the Cator Manor Project, Smit (personal communication) argues that the vehicle should be some form of municipal community partnership between the relevant communities and the municipality with some basic legal status. This legal status is necessary if it is to appropriately and confidently guide development in alignment with local needs and practices as well as strategic city/town wide vision.

This further requires a mental and operational shift of municipal implementers to conceptualise housing provision as investment in people as builders of their homes and managers of their building process, rather than investment in a once-off finished product. This includes accepting the intermediate phases of the housing provision process, however informal, as important aspects of the progressive nature of incremental delivery.

Finance options for consolidation

While some inputs might be subsidised (i.e. land, information, training etc.), most incremental housing requires that the household pay for contractors, labour, materials, information and other some other critical inputs. While this is generally funded through savings, some households may be able to leverage finance from private institutions (particularly if the state is willing to hold some of the risk of default).

Incremental housing finance requires unique lending products. Unlike the classic mortgage model wherein a loan is serviced for a long period of time, incremental housing allows for a series of short loans to be issued in relationship to the abilities and needs of the household (Greene and Rojas, 2008; Gardener, 2003). Existing lending strategies are broadly similar to those used for enterprise lending. These are individual loans, sometimes supported by group guarantees and other forms of guarantee. The key differences are that loans are generally given for longer periods, generally between one and five years, and in many cases interest rates are lower than those used for enterprise lending.

However, many households are apprehensive about taking loans due to high interest rates and fear of default, thus preferring collective or individual saving models. Despite this, a study of consolidation in Delft Cape Town suggested that the majority of households are not part of savings groups and many are not able to save (Houston, 2010). In many Slum Dwellers International savings groups, the savings levels are extremely low and often insufficient to offer real benefit to households (personal communication).

Studies further suggest that low to moderate-income households combine a wide variety of sources to build their homes including cash savings, subsidies, sweat equity, and debt finance (Ferguson and Smets, 2009: 2). Supporting this range of strategies requires concerted efforts and broad-based programmes. These supports must be conceptualised within a broader livelihood strategy and diversifying finance options for poor households may be useful. It is, however, perhaps the single most important element of the incremental equation, as 'self-help' and 'progressiveness', which incrementality requires, cannot be achieved without them.

7. CONCLUSION

In South Africa and abroad, incremental housing has come in many forms and expressions. Incremental housing is not one ‘clear’ or ‘objective’ model but is actually an appreciation for the temporal and participatory nature of housing development and the embrace of a conceptual shift in housing provision. This shift takes housing away from a focus on formal, contractor driven products and towards a more iterative, engaged, user initiated and progressive approach which allows for adaptation and is designed to meet the diversity of housing needs prevalent in South African cities and towns.

The existing policies and programmes in South Africa and the Western Cape mark an emerging support for incremental housing processes. However, fully articulating what this ideological shift will mean in practice and at scale requires a much deeper engagement with the relationship between the incremental ideology and the unique and specific contextual opportunities and constraints in South Africa and the Western Cape. In the Western Cape there is a need for clarity of vision, objectives and approach. Simply stating the various benefits of incremental models and assuming that positive externalities of such modalities will occur unaided in the event of serviced land delivery and tenure security is overly optimistic and setting the stage for programmatic failure.

There is a particular need to understand (and design funding streams and projects to support) the new and emerging role of the state in an incremental housing paradigm. This role increasingly speaks to the need to use strategic state investment in the public sphere to create better living environments and stimulate social, economic and political investment in neighbourhood development. This is a profoundly difficult process as it requires the relinquishment of control over direct provision process and clarity over necessary public investments (many of which may sit outside of the traditional housing domain). It requires finding new ways of measuring success in the field of housing and new mechanisms, vehicles and partnerships for delivery.

Moreover, there is a need to differentiate the current support for incrementalism from previous programmes which have in the past had limited success. Many incremental programmes (particularly the site and service models) have not addressed the needs, demands, priorities and capacities of households. It will also be needed to gain traction and political buy-in. A thorough multi-stakeholder communication strategy is needed which answers important questions including “what makes this programme compelling and relevant?”, “how will we ensure that this is effective?” and “what tools do municipalities need to do this?”.

The idea that incremental housing delivery is in some way easier than other delivery modalities must be relinquished and replaced with a willingness to commit both time and energy to incremental housing processes. In light of this reality, a clear and South Africa specific ‘theory of change’ is needed which stretches beyond the simple, yet politically unpalatable idea that the department must ‘do more with less’ and further critiques the instruments (i.e. subsidies, tools, departments, language) available to achieve these goals.

This piece stresses the need for a strategy which goes beyond simply up-scaling the current delivery modality and takes seriously creative intervention, considering every element of the provision process: land, tenure, site design, basic services, core structures, consolidation, and finance. While not one of these elements is the sole key to successful incremental housing initiatives, understanding how the pieces of the incremental puzzle interact with and mutually support each other unlocks new possibilities of programmatic and project design.

Moreover, this piece highlights the often complex nature of housing delivery and suggests that, beyond some very basic spatial and design elements (i.e. making space for public areas etc.), the majority of the transformation is of an institutional and political nature. Creating the willingness, knowledge, and capacity to embrace incrementalism entails shifting institutional mentality and logic.

This shift requires deep engagement with both the conceptual basis of incrementalism (outlined in Section 2), as well as the practical experiments, and implications of the lessons which have emerged from the last fifty years of incremental praxis in the Global South.