A home close to opportunities in South Africa: Top down vision or bottom up demand?

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Abstract

South African cities have changed tremendously over the past 50 years. Alongside growing urbanisation, people have moved further apart or closer to each other, influenced by the reigning ideologies and policies of the past and present. Cities were and are shaped by the leading corporations, institutions and to some extent by the planners who aim to implement their visions. Many of the contemporary international planning and urban design movements promote closer proximity of new housing developments to a larger variety of socio-economic opportunities. In response, international planning and development policies from many countries advocate the development of medium-density mixed housing developments to achieve increased densification and socio-economic integration and ultimately more sustainable cities. The new housing plan, Breaking New Ground (2004), also promotes this. Yet, how many people pause to consider the opinions of those for whom these developments are planned and designed? This discussion reconsiders the issue of housing location and, in particular, the importance of greater proximity of housing projects to a range of socio-economic opportunities from a resident's point of view.

'N HUIS NABY GELEENTHEDE IN SUID-AFRIKA: BO NA ONDER VISIE OF ONDER NA BO VEREISTE?

Suid-Afrikaanse stede het geweldig baie verander in die laaste 50 jaar. Tesame met verstedeliking en beïnvloed deur verskeie ideologië en beleidsdokumente, het mense ruimtelik verder of nader aanmekaar beweeg. Stede was en word gevorm deur groot korporasies, institusies en tot 'n mate deur beplanners wat probeer om hulle visies te implementeer. Vele kontemporêre internasionale beplannings- en stedelike ontwerpbewegings verkies dat nuwe behuisingsprojekte naby aan 'n verskeidenheid van sosiale en ekonomiese geleenthede geleë behoort te wees. In reaksie hierop word die ontwikkeling van mediumdigtheids-, gemengde behuising voorgehou om hoërdigtheidsontwikkeling en sosiale en ekonomiese integrasie, asook meer volhoubare ontwikkeling te bewerkstellig. Die nuwe behuisingsplan in Suid-Afrika, *Breaking New Ground* (2004), moedig 'n ooreenstemmige benadering aan. Tog, hoeveel mense stop vir 'n oomblik om die opinies van die mense wat hier moet bly te bepaal? Hierdie bespreking heroorweeg die ligging van behuising en meer spesifiek die belangrikheid van nabygeleë sosiale en ekonomiese geleenthede aan nuwe behuisingsprojekte volgens die inwoners.

LEHAE LE HAUFI LE MENYETLA AFRIKA BORWA: TJHEBELOPELE KAPA TLHOKO

Metsemeholo ya Afrika Borwa e fetohile haholo dilemong tse mashome a mahlano (50) tse fetileng. Ha mmoho le kgolo dibakeng tsa metse ya ditoropo, batho ba dula hole le ba bang kapa ba dula haufi le ba bang, ba tshwaetswa le ho hemelwa ke mehopolo ya ho busa le ya mano a nakong e fetileng le mehla ya kajeno. Metsemeholo e ne e botjwa ke dikoporeishene tse tummeng, dibaka tsa tshebetso tse itseng mme le ho feta moo le baradi bao sepheo sa bona e leng phethahatsa ditjhebelopele tsa bona. Bongata ba mekgatlo ya nakong e fetile ya meralo ya matjhaba le ya meralo ya metse ya ditoropo e tlisa ntlafatso haufiufi le dintshetsopele tsa matlo tse ntjha ho ya ho maemo a fapafapaneng a maholo a menyetla ya tsa phedisano le moruo. Karabong ya tsena, ba moralo wa matjhaba esitana le mano a ntshetsopele ho tswa dinaheng tse tse ding ngata di bontsha nthetsopele ya dintshetsopele tsa bongata bo bohareng bo kopakopaneng ho fihlela bongata ba matlo bo eketsehileng le kopano ya phedisano le moruo mme qetellong ho be le metsemoholo e ka kgona ho itsamaisa. Mora o motjha wa matlo, e leng Ho Kenya Mohoma Temeng (Breaking New Ground) (2004), le wona o ntlafatsa sena.Empa, kgele! Ke batho ba bakae kgefutsang mme ba tadima maikutlo a batho bao, bao ba reretsweng dintshetsopele tsena le ho di rallwa? Puisano ena e boela e tadima hape taba ya tulo ya moo matlo a hahuwang teng, haholoholo ya bohlokwa ba bohaufi bo boholo ba mesebetsi (diprojeke) ya matlo ho fihlela menyetla ya phedisano le moruo ho tswa tjhadimong ya moahi.

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1. INTRODUCTION

South African cities have changed tremendously over the past 50 years. Cities were and are shaped by the leading corporations, institutions and to some extent by the planners who aim to implement their visions. Driven by political ideologies and international planning trends, planners and housing practitioners discuss and implement policies and practices believed to contribute to well-performing, functional and efficient cities. However, is it only political vision or technical efficiency that matters? Ideally, this should also be balanced with the needs and perhaps even preferences of people who have to live in these settlements.

In recent years there has been an increasing focus on the location of housing projects and their proximity to greater socio-economic opportunities. Many of the recent movements such as Smart Growth and New Urbanism have highlighted the importance of housing location to promote densification, more compact cities and greater socio-spatial integration. Others have highlighted the benefits of well-located and integrated housing projects for urban sustainability (for example, Baily, Haworth, Manzi, Paranagamage & Roberts, 2006: 37; Rogers, 1997: 118; Biermann, 2004: 2).

The location of housing has also received increasing attention in South Africa, especially in the light of subsidised housing programmes that have been criticised for providing low-income housing on urban peripheries, far from social and economic opportunities (Seekings, 2000: 835; Goebel, 2007: 292; Napier, 2007: 8; Pillay, 2008: 113). Given the differing access to opportunities, there is a growing need for more affordable and low-income housing options on land located near urban opportunities. There is, however, a lack of sufficient well-located and affordable land, especially in fast-growing urban areas (Napier, 2009). This inevitably leads to competition for land and increased land value of well-located land, making it very difficult for low-income households to access land, unless invaded

llegally, or for the state or developers to acquire such land for poorer communities. As a result, it poses a real challenge to government or developers to provide affordable housing on expensive land.

In response to these challenges, the South African Government has promoted the development of medium-density mixed housing in its new housing plan, commonly referred to as 'Breaking New Ground' (2004). The intention is that increased densities allow more people to be accommodated on higher cost well-located land. Together with the promotion of public transport with associated densities along development corridors, access to opportunities would be enhanced. Similarly, mixed developments would also enhance access to more opportunities in closer proximity to where people reside. Despite this, there is still some concern about the relevance and acceptability of medium-density mixed housing in South Africa.

This article reconsiders the issue of housing location and, in particular, the importance of the proximity of housing developments to greater social and economic opportunities in the current South African urban environment. The focus is not on the technical or spatial issues related to accessibility such as distance to various opportunities and related costs, but rather on the views of residents and other key stakeholders regarding the importance of the proximity of medium-density mixed housing developments to greater social and economic opportunities. This article therefore investigates whether the promotion of greater proximity is a mere idealistic policy-driven vision based on international trends and political intentions or a response to the needs of residents and other key stakeholders. The views of stakeholders are based on the findings from a multi-year study on medium-density mixed housing in South Africa funded by the CSIR. The overarching aim of the research was to determine the appropriateness and applicability of medium-density mixed housing developments in the country. Two of the objectives related to the critical success factors, namely to determine the factors that various stakeholders consider to be necessary for medium-density mixed housing to be successful in this country and to determine whether these factors can be successfully achieved in South Africa. The methodology comprised multiple case studies utilising both quantitative and qualitative methods. However,

before discussing the views of residents, it is useful to contextualise the focus on medium-density mixed housing against the backdrop of past developments and changes in South African cities.

2. HOUSES FAR FROM OPPORTUNITIES: CHALLENGES AND CHANGES

In the changing South African city, people have moved further apart or closer to each other, influenced by the reigning ideologies and policies of the past and present. The post-1960s, also referred to as 'high apartheid', occasioned forced removals of 'incorrectly' located black people, newly created homelands and deliberate 're-tribalisation' and resulted in large-scale socio-spatial engineering (Butler, 2004: 19). Planners in South Africa effectively made use of modern town planning ideas to assist with the creation of the apartheid city (Dewar, Watson, Bassios & Dewar, 1990; Dewar & Uytenbogaardt, 1991). Numerous model neighbourhoods were laid out according to race groups. Well-developed traditionally white suburban areas developed around the central business districts, where most of the facilities and job opportunities were located. The African population was concentrated in townships on the urban periphery close to the main employment areas (Badenhorst, 1999). These areas were separated from the well-developed suburbs by means of buffer strips in the form of green belts, industrial zones and rapid transport routes. Dewar (1992) and Dewar (1994) identified three spatial features that resulted from these development patterns and characterised South African cities at the beginning of the nineties: low-density sprawl, fragmentation and separation.

'Low-density sprawl' manifested in three processes that determined the pattern of growth. The first was speculative sprawl, which involved wealthy people seeking to privatise amenities and becoming the target group for developers, who targeted places of beauty to build their privatised 'resorts'. The second process giving rise to low-density sprawl was the development of low-cost housing schemes on the urban peripheries. A third process was illegal squatting by people who could not find a place in a designated housing area. The second pattern is 'fragmentation'. Cities reflected a cellular development pattern, since development occurred in relatively discrete pockets or cells,

frequently bound by freeways and/or buffers of open space. The result is a very coarse grain and fragmented urban pattern. This was mainly linked to the implementation of the 'neighbourhood unit' concept. An inevitable result of this cellular pattern is a simplified movement hierarchy. Isolated pockets of development are linked primarily by freeways and other limited access forms of movement, which restricts opportunities in an urban structural sense. The third pattern is 'separation'. This included separation of land uses, races and income groups to the greatest degree possible. The separation of places of work and residences were also deeply entrenched in the philosophy of urban management. The dominant urban land-use pattern resembled a series of relatively homogeneous 'blobs' of different uses, connected by rapid transport routes. Increasing numbers of poor people settled on the urban edges, placing them increasingly further from urban opportunities (Dewar, 1992).

These patterns were also strongly underpinned by entrenched housing practices. This included viewing housing only as a free-standing house on a large plot. As a result, all housing schemes were undertaken primarily as large programmes requiring large parcels of vacant land – parcels only to be found beyond the existing urban fringe, while space was used as a buffer zone between race groups and later between income groups. These patterns had a very negative impact on the poor. The sprawling, fragmented urban system generated an enormous amount of movement without creating the pre-conditions for viable and efficient public transport systems. The cost of movement was also aggravating the problems of poverty and inequality. The low densities negatively influenced the opportunities for small businesses due to a lack of market concentration to support vibrant local economies. In addition, the dormitory settlements offered poor and inconvenient living environments with little or no access to social and economic infrastructure. Due to the low thresholds, service levels were also extremely low (Dewar, 1994: 232-233).

It is against this background that the post-apartheid government had to reconsider the restructuring of the city and the delivery of housing. However, in the first few years of democracy, the emphasis was mainly on the numbers of housing units provided. The delivery of

RDP houses was aimed at increasing the quantity of housing stock available to the poor as quickly as administratively possible (Cross, 2008). Although this offered housing to many of the poor, it did not offer opportunities to restructure the city or to provide the poor with greater access to socio-economic opportunities. One of the major challenges for housing delivery and urban integration in South Africa is access to well-developed land and affordable housing for low-income households. Many researchers agree that, despite well-intended policies and interventions, the poor still generally have a lack of access to affordable, well-located land within cities, which hampers the potential for integrated housing and inclusive developments (Seekings, 2000: 835; Goebel, 2007: 292; Napier, 2007: 8; Pillay, 2008: 113). In a replication of apartheid spatial patterns, the vast majority of poor people are located on the urban periphery distant from city centres and, in many instances, divorced from economic opportunities and social amenities (Napier, 2007: 8).

In order to readdress this, 'Breaking New Ground' (2004) introduced new options for delivery with an emphasis on restructuring the city. This includes a focus on medium-density mixed housing to address some of the challenges discussed above, including low-density sprawl, fragmentation and separation. The emphasis is on the creation of sustainable settlements as environments for diversity and choice offered by a range of housing options in close proximity to supporting facilities, amenities and economic opportunities. According to the New Urbanists, the principle of mixed housing refers to the incorporation of a range of housing development types, sizes and prices in close proximity. Increased density refers to a greater number of buildings, residences, shops and services closer together for ease of walking, first to enable more efficient use of services and resources and, secondly, to create a more convenient, enjoyable place to live, implying mixed neighbourhoods (New Urbanism, n.d.: online). The benefits of multifunctional neighbourhoods have been well documented, but this does not have to involve different uses all in one building. Higher density building alongside existing town and local centres, or even redeveloping redundant space in retail and business parks allows for a balance of uses without conflict (CABE, 2006: 17).

The argument is that mixed housing and increased densities in development projects will provide a wide range of benefits for residents, developers and municipalities. It is argued that residents will enjoy a higher quality of life and places to live, work and play in close proximity, allowing easy access. Developers have a higher potential for increased income from higher density mixed-use projects due to more leasable floor area, more sales per square metre, and higher property values and selling prices. Municipalities are then likely to have a stable, appreciating tax base and need to spend less on infrastructure and utilities per capita compared to typical suburban developments, due to the compact, higher density nature of the projects (New Urbanism, n.d.: online).

However, while such an approach presents a noble vision, there is still some concern about the relevance and acceptability of medium-density mixed housing in South Africa. For example, Schoonraad (2002) found that there was still a strong resistance to higher density housing at the turn of the century. There have been limited studies on the social perceptions of people on medium density mixed housing in South Africa. However, these studies show that people have mixed feelings about this type of development, with people having both positive and negative perceptions of this type of housing. It appears that certain groups may have more positive perceptions of medium-density housing, but not of mixed housing. These perceptions are, however, shown to be dependent on certain conditions, such as life cycles of families, homogeneity and the ability of housing to meet specific residential needs (Du Toit, 2007: 8).

Given the limited knowledge available on residents' viewpoints, it highlights the need for a more in-depth understanding of their experiences and preferences regarding medium-density mixed housing. This is true given the fact that the city form is subject to cultural expectations as well as planning decisions (Bertaud, 2008) and that these city forms and people may resist attempts to change them through planning interventions. This raises questions regarding the extent to which it is possible to increase city density significantly at this stage in South Africa's urban history (Parnell, 2008). Turok (2009) further points out that the challenges involved in promoting densification can be explored from two broad perspectives: the desire of people to live in denser areas on well-located land, such as the inner city of Cape Town, and the supply of property to accommodate them. He points out that the Central City Development Strategy of Cape Town adapts a top-down viewpoint of the planner in assuming that there is little or no constraint on the demand for central city living. It assumes that all the obstacles to densification and, one may argue, mixed developments lie on the supply side. It is important, therefore that the issue of demand is examined in more depth to confirm or reject this assumption (Turok, 2009: 6). The article takes up this challenge and examines whether the increased focus on a home close to opportunities is only a reflection of a top-down vision adopted by the government policy and planners or whether this is reflected in the demands of residents too.

3. A HOME CLOSER TO OPPORTUNITIES: STAKEHOLDERS' VIEWS

3.1 Research methodology and selected case studies

As mentioned earlier, the findings are based on multiple case studies of medium-density mixed housing projects in South Africa. The case studies included two components: first, investigating the context, namely the socio-spatial environment and, secondly, understanding the views of key stakeholders, including the residents, developers, financiers and housing officials. A number of methods and tools were used to investigate these issues: a spatial analysis tool to assess the physical context; a structured questionnaire to conduct household surveys[1] with a sample of residents, and semi-structured interviews with developers, officials and

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1 Structured questionnaires were distributed to a sample of households (minimum 30 households but up to 60 in larger developments) in each of the case study areas. The questionnaire included a section to obtain demographic information, including household income, a section obtaining the resident's views on the critical success factors and three open-ended questions at the end to obtain any additional information that may not have been covered in the structured questions. The questionnaire therefore included both closed and open questions and as such facilitated both quantitative and qualitative data analysis.

financiers (for a detailed discussion see Landman & Du Toit, 2008).

The research included two pilot case studies in Johannesburg to test and refine the research methodology and tools, followed by an additional five case studies across the country. The cases were selected based on a set of criteria, namely that they encompass a

3.2 Importance of location and proximity

This section presents the views of the various stakeholders, including residents, developers, municipalities and financiers. The discussion commences with the overall views of the residents, followed by a number of key issues that emerged from the findings.

'affordability', 'design and layout', 'safety and security', 'neighbourliness', and 'management and maintenance'. Comparing the categories, factors related to 'safety and security' were considered to be most important (mean = 4.5; std. dev. = .5), followed by factors related to 'design and layout' (mean = 4.2, std. dev. = .5). The 'design and layout' included five issues that related

Table 1: Selected cases

Cases	Province	Municipality	Location in city	Density	Character
Amalinda	Eastern Cape	Buffalo City	Close to inner city (many opportunities)	69 du/ha	Medium-density mix (housing, income and tenure types)
Brickfields	Gauteng	Johannesburg	Inner city (many opportunities)	107du/ha[2]	Medium-higher density mix (housing, income, land use)
Carr Gardens	Gauteng	Johannesburg	Inner city (many opportunities)	181 du/ha[3]	Medium-higher density mix (housing, income and land use)
Cosmo City	Gauteng	Johannesburg	Urban periphery, but close to urban node with opportunities	33 du/ha[4]	Low-medium to medium-density mix (housing, income and tenure, and land use types)
Hull Street	Northern Cape	Sol Plaatje	Close to inner city (many opportunities)	57.8 du/ha	Medium-density mix (housing, income and tenure mix – mix land use planned)
Pennyville	Gauteng	Johannesburg	In suburbs, but close to urban node with opportunities	84 du/ha	Medium-density mix (housing, income, tenure mix - not all phases completed)
Sakhason-ke	Eastern Cape	Nelson Mandela Metro	Relatively close to inner city and urban opportunities	77 du/ha	Medium-density mix (housing and tenure types)

medium-density and at least two forms of mix (housing units, tenure, income and/or land use) within a low-rise development. The seven case studies are distributed throughout the country, although four of the seven are located in the City of Johannesburg (Table 1). From the selection of case studies it is evident that 'medium-density mixed housing' can differ quite extensively in practice in terms of size, built form and types of mix involved, while still broadly adhering to the criteria. It is also clear that the location of medium-density mixed projects within the cities can differ from being located in the inner city or areas just outside the inner city to suburban or even peripheral locations.

3.2.1 Overall importance of proximity

Given the significance of proximity through higher density and a greater mix for a range of key stakeholders, it may be that the location of these types of housing projects and the proximity to greater social and economic opportunities will be a key factor contributing to the success of these projects. The survey in South Africa recorded the possible success factors for medium-density mixed housing as identified prior to the survey based on an in-depth international and local literature review. The respondents were asked to rate these from 1 to 5 with '1' being 'not at all important', and '5' being 'important to a large extent'. The factors were grouped into five categories, namely

directly to locational issues and, in particular, that of proximity (Table 2). Of these factors, 'proximity to public transport, shops, and clinics/hospitals', were the factors rated most important on an aggregate level (each with a mean rating of 4.8). The second and third most important factor on an aggregate level included 'proximity to schools' (mean = 4.7; std. dev. = .8), and 'proximity to places of work' (mean = 4.6; std. dev. = .9).

In all instances, the five factors concerned with proximity had an aggregate mean rating of 4.0 or higher, suggesting that residents in fact considered all of these factors to be important[5] for the success of medium-density mixed housing. In Cosmo City, the mean ratings on the housing project level for 'proximity to schools, public transport,

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2   The survey focused and surveyed only the four-storey walk-ups in the Brickfields precinct due to the criteria of selecting low-rise buildings. If one excludes the tower blocks, the density is substantially reduced from 181 du/ha to about 107 du/ha.

3   Although this would be considered high density by some people, one can also argue that it could constitute medium density in inner-city areas in South Africa.

4   Cosmo City currently has a density of 33 du/ha. However, additional higher density social units are planned and this would increase the current density. Therefore, although the density was slightly lower than the intended range, it was decided to include the project as it is one of the first and only broad range mixed income projects in the country.

5   Considering a scale of 1-5, mean ratings below 3.0 suggest that residents considered such factors to be unimportant, whereas mean ratings above 3.0 suggest that they considered such factors to be important, while mean ratings of '3.0' suggest indifference.

Table 2: Mean ratings for 'design and layout' factors related to location[6]

Cases	Mean and Std Dev	Proximity to places of work	Proximity to schools	Proximity to public transport	Proximity to shops	Proximity to clinics/ hospitals
Amalinda	Mean	4.6	4.5	4.6	4.8	4.7
	Std Dev	0.9	1.0	1.1	0.7	0.8
Brickfields	Mean	4.5	4.2	4.6	4.6	4.3
	Std Dev	1.0	1.4	0.8	0.9	1.2
Carr Gardens	Mean	4.3	4.3	4.7	4.5	4.4
	Std Dev	1.2	1.2	0.7	0.9	1.0
Cosmo City	Mean	4.6	4.9	4.9	4.9	5.0
	Std Dev	1.0	0.6	0.4	0.3	0.2
Hull Street	Mean	4.8	4.8	4.7	4.8	4.8
	Std Dev	0.5	0.5	0.5	0.5	0.5
Pennyville	Mean	4.7	4.7	4.7	4.6	4.6
	Std Dev	0.8	0.5	0.5	0.5	0.5
Sakhasonke	Mean	4.6	4.4	4.6	4.4	4.6
	Std Dev	0.9	1.1	0.7	1.0	0.7
Group total	**Mean**	**4.6**	**4.7**	**4.8**	**4.8**	**4.8**
	Std Dev	**0.9**	**0.8**	**0.6**	**0.6**	**0.5**

and shops' were all as high as 4.9, while the mean rating for 'proximity to clinics/ hospitals' was as high as 5.0 – the highest recorded rating. This may be related to the comparatively spread-out nature and scale of the development, as well as the location on the urban periphery. Although the development is still relatively close to facilities and amenities in the nearby nodes of Randburg and Fourways, many local facilities and amenities are still to be developed due to a phased approach to the development. In Hull Street, the mean ratings were also very high (4.8) for 'proximity to work, schools, and shops', while 'proximity to shops' was very high (4.8) in Amalinda. In Pennyville, the mean ratings were high (4.7) for 'proximity to work, schools, and public transport'. Issues related to 'location' are therefore perceived to be crucial for the success of medium-density mixed housing.

Although these findings show the overall importance of proximity, they do not provide specific detail. This will be addressed in the following sections.

3.2.2 Towards more inclusive cities and greater access

Studies in the UK show that with more people living in an area, better schools and local shops become economically viable, as well as regular bus services. For example, while 25 du/ha could support fairly frequent bus services, double the number could support an express bus service within a quarter of a mile. Places that are not over-dependant on car-use enjoy livelier streets and, in turn, create more inclusive neighbourhoods with greater access (CABE, 2006: 12). This raises questions regarding the need for more inclusive neighbourhoods and greater access in South Africa.

The survey questionnaire also included three open-ended questions at the back, elaborating many of the issues. This section was analysed by identifying a number of prominent themes that arose in each category. Similar to the findings above, the locational issues also emerged as an important theme in the category 'design and layout', especially in terms of proximity to resources and opportunities in the city. Many residents emphasised the notion of locating housing in proximity to nodes with socio-economic opportunities. This was especially highlighted in Amalinda, Cosmo City, Hull Street and Sakhasonke. The significance of proximity is evident in the following extract from Amalinda:

> This type of housing is fine, but it should be built closer to towns, the people feel as if they are still excluded (Female respondent, aged 33).

Interestingly, proximity also appears to be related to a feeling of inclusion. Given this, greater proximity could therefore contribute to more inclusive cities, especially if these developments accommodate greater pedestrian volumes. It would also provide greater accessibility to lower income households, as expressed by a resident in Hull Street:

> Important that these projects are located in the proximity or in the city this would assist those [who] cannot afford private cars (Female respondent, aged 41).

This highlights the importance of pedestrian access, especially in the light of affordability. The residents of Sakhasonke also expressed the importance of access for pedestrians and affordability:

> It's very important to be close to public transportation because we have to walk 30 minutes to get a taxi or a bus here. It's important to be close [to] public amenities because ambulances don't even come here (Female respondent, aged 37).

> We also need shops close to us because they are far for us who don't have cars (Female respondent, aged 27).

Pedestrian access is therefore not only more affordable, but can also improve the lives of the residents.

One of the factors that contributes to the levels of accessibility and that may also influence resident's viewpoints is the daily modes of travel used by different households. According to the household survey, in total, the majority of the residents (56%) made use of minibus/taxis. Interestingly, the survey also showed that, second to this, many residents (25%) made use of a private car or motorcycle, despite general perceptions that residents in affordable housing cannot afford cars.[7] The daily modes of travel used by residents also differed substantially between the cases. In five of the cases, Brickfields (35%), Carr Gardens (41%), Cosmo City (66%), Pennyville (46%) and Sakhasonke (46%), minibus/taxis were the predominant mode of travel, whereas in Amalinda a private car/motorcycle

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6 The table shows the mean rating for each factor, together with its respective standard deviation, by case study, as well as aggregate ratings for each category.

7 In three of the seven case study areas (Brickfields, Carr Gardens, and Hull Street), more than 50% of the sampled households earned more than R5 000 per month.

dominated (47%), followed closely by minibus/taxi (45%). The majority of the households (54%) in Hull Street walked to places of work and other facilities. Similarly, many people also walked from Brickfields (29%) and Sakhasonke (27%). In Pennyville, many households (41%), second to using minibus/taxis, made use of the bus or train to go to work. This reiterates the fact that minibus/taxis tend to constitute the most common mode of travel, but that the use of private cars/motorcycles may dominate in some affordable housing projects, while walking to work and other opportunities may still constitute a large percentage of the mode of travel in some areas. This also highlights the importance of close proximity to opportunities to offer residents a chance to walk.

3.2.4 Close proximity to socio-economic opportunities

Pedestrian opportunities could therefore be enhanced by a variety of mixed developments. In the USA, for example, the Market Common in Clarendon, Virginia, USA, includes 87 townhouses among prime retail and office space, pointing towards the significance of proximity (California Roundtable, 2002: 10). Another example is the Oakridge development in Basingstoke, England, with four/five-storey maisonettes and flats that are situated close to a pub and a variety of other shops. This development also includes a nursery school on site and a regular bus-service stop (CABE, 2006: 13). Yet, taking into account the specific local context and needs of residents, it raises questions as to what types of mix of socio-economic opportunities would be considered important in South Africa.

Some of the residents from the case study areas specified the types of facilities that are needed, especially in newer large-scale developments such as Cosmo City. These included shops, banks and a range of public facilities, such as clinics and police stations, as reflected in the following extracts from Cosmo City:

> I am using R34 a day to Sandton which is too much so we need shopping complexes, police stations etc. - this could also provide employment opportunities for residents (Female respondent, aged 33).

> We need banks and public facilities close by because we travel for those services to Fourways or Randburg and it's expensive about R16 return

trip and in case of emergency we wait long hours before we receive help (Male respondent, aged 37).

> We desperately need public facilities such hospitals, clinics and shopping centers because just the other day we had an incident whereby a child was delivered in the house because the ambulance took long to arrive (Female respondent, aged 48).

As indicated, Cosmo City is a large-scale development (with 12 400 units planned) which is being developed in phases. As a result, many of the facilities have not yet been completed, which explains the residents' comments. It does, however, show the importance of access to these types of facilities in closer proximity to where they live. As in the cases of Amalinda, Cosmo City and Hull Street, the residents of Sakhasonke also highlighted the importance of housing in proximity of a range of opportunities, including job opportunities, transport access points, public facilities and shops, for example:

> Housing should afford an opportunity for people to find jobs. Therefore it must be close to work opportunities (Female respondent, aged 27).

It is, however, important to take cognisance of the fact that location and proximity to economic opportunities may mean different things to different people. Making use of a sustainable housing cost-benefit model, developed for measuring and comparing the costs and benefits of alternative low-income settlement locations in South Africa, no clear evidence was found that conclusively supports the assertion that central locations are better than peripheral locations. The study found that in the case of low-income housing location, it is not simply a case of 'one size fits all.' There is a significant diversity in low-income households. These households each have different needs and priorities which, in turn, translate into different criteria and levels of importance for different types of households. It is therefore not sustainable to try to find one type of solution or type of housing location that should serve all households' current and future needs and is affordable to both government and households. The study also found that the issue of access to work is far more complex than merely mapping access to major formal economic centres, in particular those in the central node. Access to all formal nodes and to higher income

residential areas for domestic and unskilled opportunities is important. In addition, access to within-settlement informal service opportunities should not be ignored (Biermann, 2004: 9-10). It is therefore important to consider the issue of location from a multi-dimensional perspective.

3.2.5 Inclusion of communal facilities and services

It is interesting to note that one of the respondents from Hull Street acknowledged that the location and hence proximity of medium-density mixed housing to existing opportunities will depend on the availability of well-located land in the municipal area. This showed that the respondent is aware of the fact that the availability of land is one of the key challenges to greater urban integration:

> It will be important to place this type of development in the proximity of the city, but this is highly dependent on the availability of the land (Male respondent, aged 45).

However, the issue appears to be not only of land, but also of the existing capacity of facilities to deal with new residents. It is important that infill projects aimed at achieving greater spatial integration do not strain existing local resources, as was alleged in Hull Street by one respondent:

> The challenge in Hull street is related to access to schools. We have a large number of children in the area who are turned down by the schools in the surrounding [areas] due to a lack of vacancies (Female respondent, aged 47).

This would negate the benefits of close proximity to existing facilities. It also raises interesting issues relating to proximity, namely whether the opportunities should be provided on site or in the immediate surrounding environment. This is related to the incorporation of mixed land use and the inclusion of communal facilities and services in the development. In all seven case studies, residents highlighted the importance of the availability of communal facilities and services in medium-density mixed housing developments, including play areas for children, a crèche, recreational facilities, shops, public telephones, letter boxes, and barbeque spaces. Residents from Sakhasonke and Pennyville emphasised the need for specific facilities for children, for example:

Pre-schools and day-care centres within the developments. Playgrounds must be available (Female respondent, aged 35) [Sakhasonke]

Public facilities such as library where kids can study in peace (Female respondent, aged 30) [Pennyville]

By comparison, the residents of Amalinda, Cosmo City and Brickfields appeared to focus on facilities for adults on site, such as a gym, community hall and recreational space to have a barbeque, for example:

Complex should be self-sustaining, in other words it should have recreational facilities as well, such as community hall and gym (Female respondent, aged 35) [Amalinda]

We need community halls to be able to host community gatherings and other occasions (Male respondent, aged 25) [Cosmo City]

We want a *braai* spot/public space to *braai*. At the moment we *braai* in the balcony and smoke goes to people's washing (Male respondent, aged 20) [Brickfields]

This also highlights the concern with compatible land uses and the need to locate facilities in such a way that they do not create opportunities for conflict. The issue of home-based businesses and whether they should be allowed also emerged strongly in five of the cases, namely Amalinda, Cosmo City, Hull Street, Pennyville and Sakhasonke. According to some of the respondents, permission to operate businesses from home will contribute to the improvement of the socio-economic needs of the residents, for example:

Businesses from the houses would provide people with an opportunity to earn some money, especially mothers who look after babies (Female respondent, aged 28) [Cosmo City]

Because people can't find jobs out there, it is important that people are allowed to open home-based businesses (Female respondent, aged 37) [Hull Street]

It's important to start your business because that gives you extra cash to be able to cover your expenses (Female respondent, aged 29) [Pennyville]

To be given facilities to start your own business is important because it would solve the problem of employment (Female respondent, aged 31)

[Sakhasonke]

At present the social housing developments do not allow the establishment of these types of businesses. This may be attributed to the perceived challenges from housing associations/agencies and some of the residents associated with informality including the management and maintenance, security and safety, and neighbourliness. The discussion, however, illustrates that residents from medium-density mixed housing projects have a need for different types of on-site and/or neighbourhood facilities, amenities and services, providing access to social, economic, educational and recreational opportunities in close proximity to their place of residence. This would support the notion of mixed development, including mixed land use.

3.2.6 Other stakeholders' views

Fraser (2007) has identified factors associated with the success of mixed-income projects, and location has been noted as a key issue for economic viability. Finkel, Lennon & Eisenstadt (2000: 113-114) state that "if a site is convenient and attractive, higher-income residents will be drawn to the newly built residences and, where available, the homeownership opportunities". The importance of locational issues also emerged from interviews with the main developers, housing officials and financiers responsible for or involved in each project. Relating to the issue of whether the opportunities should be provided on site or in the immediate surrounding environment, the developer of Brickfields and Carr Gardens, the Johannesburg Housing Company (JHC) noted that while on-site opportunities are very important, providing a range of public facilities could potentially escalate the development costs, therefore raising affordability issues. The issue of mixed land use was also considered important by the developer/financier of Sakhasonke (General Motors South Africa Foundation), while the designer/project coordinator attributed the vibrance in the community with strong social networks to good proximity. According to the developer of Pennyville (Calgro M3), the location of different types of houses in close proximity also has benefits. The location of RDP houses in proximity to other types of housing contributes to the value of these houses which was estimated to be approximately R100 000 in 2008, when the interviews were conducted. Of all the issues, this

developer considered location to be most important. All the developers agreed that proximity and location play a major role in attracting potential middle-class households to medium-density mixed developments, making it viable for them to invest in this type of development. This also supports Fraser's statement (2007) that location is a key success factor of mixed developments.

The City of Johannesburg (in which four cases were located) and Buffalo City Municipality also reiterated location and proximity as critical for the success of medium-density mixed housing in the country, enabling both the local authority and developers to save costs while providing medium- to lower income residents with higher quality living environments in proximity to socio-economic opportunities. This would also enable them to implement national and local development policies such as BNG and their local Integrated Development Plans.

One of the key financiers in the Amalinda and Carr Gardens projects, the National Housing Finance Cooperation (NHFC), stated that they consider proximity crucial, including proximity to employment opportunities and public facilities. Another financier from ABSA bank, who partially funded the development of Brickfields, was not too concerned with location, apart from the fact that the development should be acceptable to the market. To this extent, location would also have an impact on the specific local housing market.

4. TOP-DOWN VISION OR BOTTOM-UP DEMAND?

4.1 Planning ideal or practical consideration

Given the significance of proximity and the connection to medium-density mixed housing, it is not surprising to find that medium-density mixed housing projects are promoted by a range of policy documents in countries such as the USA (Brophy & Smith, 1997; Fraser, 2007), the UK (Berube, 2005; Stephens, 2005), New Zeeland (Turner, Hewitt, Wagner, Su & Davies, 2004) and Australia (Johnston, 2002). Urban consolidation in the UK has been mainstreamed within the policy agenda. These policies are considered a means of saving infrastructure costs, reducing the demand on edge-of-city land, reducing travel distances

and possibly increased use of public transport. All these issues resonate with the sustainable development discourse, and working definitions of sustainable housing often include building to higher densities (Smith, Clayden & Dunnett, 2009: 164; Jenks & Dempsey, 2005).

As mentioned earlier, the new housing plan in South Africa also advocates the development of medium-density mixed housing. BNG, or more formally called the 'Comprehensive Plan for the Development of Sustainable Human Settlements', is based on the premise that housing delivery by the state and the private sector should contribute to the creation of sustainable human settlements. As a result, the plan moves away from a "housing-only approach" towards the development of social and economic infrastructure as an integral part of settlements. To enable this, the multi-cluster concept is supported, containing services such as parks, playgrounds, sport fields, crèches, community halls, taxi ranks, satellite police stations, municipal clinics and informal trading facilities (South Africa. Department of Housing, 2004: 15).

In line with BNG, the Department of Housing commissioned the development of a national Sustainable Human Settlement Investment Potential Atlas (2009) to guide future housing investment towards the most suitable locations. Two of the principles promoted to enhance the quality of place are integration and densification. Integration can be achieved through multi-dimensional nodes and corridors, mixed land-use in neighbourhoods and mixed housing developments. Densification can be facilitated through medium- and higher density housing (where appropriate) and clustered facilities (Sustainable Human Settlement Investment Potential Atlas, 2009: 9). The document therefore advocates the planning ideal based on the notion of densification and integration.

The findings from the case studies confirmed that this is not a mere idealistic planning vision promoted by national government and a select group of built environment professionals. The discussion indicated that residents view the proximity of various public facilities and services as a critical success factor for medium-density mixed housing. According to the household survey, 'proximity to public transport, shops and clinics/hospitals' received the highest average rating, followed by

'proximity to schools' and 'proximity to places of work'. These findings were also confirmed in the questionnaire by the comments from residents, who highlighted the importance of the proximity of housing developments to a range of social and economic opportunities. This included proximity to shops, banks, and a range of public facilities such as clinics and police stations. According to these comments, BNG's focus on the development of social and economic infrastructure would be in line with the user needs and preferences of the case study residents in South Africa. It would also support the notion of multi-cluster development with services such as parks, playgrounds, sports fields, crèches, community halls, taxi ranks, police stations, clinics and informal trading facilities. It is interesting to note that a number of residents from five of the case study areas highlighted the need for informal trading facilities in the form of HBEs, indicating the importance of access to economic opportunities. This also confirms Biermann's findings (2004) that access to within-settlement informal service opportunities should not be ignored.

Although BNG supports the notion of multi-cluster development, it does not give specific spatial guidelines regarding the nature of these clusters. It became evident from the findings that there is a need for a range of on-site facilities in addition to neighbourhood facilities in close proximity. This raises questions concerning the scale and nature of medium-density mixed developments and which facilities and amenities should be provided on site. Some of the residents expressed a need for on-site communal facilities and services for children, such as a crèche or day-care centre and playgrounds, while others expressed the need for facilities such as a gym, community centre and recreation, specifically barbeque facilities. It is important that these facilities be provided in a suitable location to ensure compatible mixed-land use within mixed developments. In some instances the nature of the development may be such that it accommodates more facilities on site, while in other instances the housing units form part of a mixed neighbourhood rather than a contained mixed housing development.

In addition, the nature and scale would depend on a range of factors, including the availability of land, the capacity of the existing infrastructure to support

the intended target population, and affordability. The residents' comments acknowledged the importance of the availability of well-located land and the capacity of existing infrastructure. This was confirmed by many of the developers and housing officials from some of the municipalities concerned. In addition, while emphasising the importance of location, many developers also pointed out that the issue of affordability was a critical success factor, both in terms of the cost of well-located land and the cost of providing a range of facilities and amenities on site, while still being able to provide affordable and low-income housing options.

4.2 Implications for future policies and practices

The study indicated that the current government policies are in line with user needs and preferences, as well as the priorities of developers, housing officials and financiers. The findings indicated that proximity to greater social and economic opportunities is crucial for the success of these types of developments in South Africa. This has numerous implications for future policies and practices. From a policy point of view, it would imply that there should be a continuous promotion of the development of medium-density mixed housing developments in closer proximity to social and economic opportunities.

This would have numerous practical implications. First, appropriate decisions should be made regarding the nature and scale of these developments, taking into account issues such as the availability and cost of land, the capacity of existing infrastructure, and affordability. It should also take into account the impact of these developments on the city at large. The city is not a collection of housing developments or urban villages that function in isolation; hence necessitating the integration of these developments with the larger urban envelope. This would have a direct influence on the scale of the development and the provision of facilities and services on site (for private use of residents only) or as part of a larger mixed neighbourhood where a larger urban community could share facilities. These types of interventions would facilitate more choice and cater for the diversity in low-income households regarding locational needs and priorities. Finally, the increased densities could support the implementation of an integrated public transport system

to promote access to opportunities that are beyond walking distance from these developments. The development of context-specific urban design guidelines that focus on these issues could assist to guide government departments and developments regarding the nature and scale of future developments in South Africa.

5. CONCLUSION

Over the past 50 years development and housing delivery patterns in South Africa have changed from a focus on low-density, fragmented and separated development to a new emphasis on higher density, integrated developments. Although the current emphasis on medium-density mixed housing may not yet be part of mainstream development, there is increasing support for these types of developments. This article reconsidered the issue of housing location and, in particular, the importance of greater proximity of housing projects to a range of socio-economic opportunities, confirming this as a critical success factor for the development of medium-density mixed housing in South Africa. The article showed that the notion of 'a home closer to opportunities' is not a mere idealistic top-down vision promoted by the national housing plan, *Breaking New Ground* (2004) based on international policy trends and expert opinions, but a vision grounded in practical considerations, reflecting the bottom-up demand of many households from a number of medium-density mixed housing developments in South Africa. This study also confirmed that, despite some concerns that have been noted in local research regarding the relevance and acceptability of medium-density and mixed developments, many households are willing to invest in and accept these types of developments in exchange for greater proximity and access to a range of urban opportunities.

The case studies indicated that medium-density mixed housing is supported by and offers a range of benefits to many residents, developers and municipalities in South Africa. Residents highlighted the importance of proximity to facilitate greater inclusion, provide more employment opportunities and reduce travel costs and time. They also noted that on-site facilities and services would contribute to improved quality of life for children and adults. Developers pointed out the

cost benefits associated with medium-density mixed developments in terms of a higher potential for increased income, more sales per square metre and higher property and selling prices. Some also noted the opportunities to build vibrant communities with strong social networks which, in turn, is likely to influence the market value of the development. Municipalities confirmed the importance of greater proximity to facilitate the implementation of national and local policies and to promote a stable tax base. In addition, they noted that medium-density developments allow them to spend less on infrastructure development per capita. All these benefits would collectively contribute to more sustainable human settlements in South Africa. The study therefore confirmed the significance of proximity for a range of key stakeholders in South Africa through higher density mixed developments.

Making use of case studies utilising mixed methods enabled the researchers to enlist the perceptions and priorities of a range of local stakeholders and compare these findings in rich format through qualitative and in-depth data that draw on the knowledge and attitudes of human intentions which motivates human behaviour. As a result, the study showed that it was possible to develop medium-density mixed developments in South Africa with a greater number of houses and services in closer proximity promoting accessibility and ease of walking. This is important as it was revealed that walking to work and other urban opportunities still constituted a large percentage of the mode of travel in many of the cases. Similar to international findings, this enables more efficient use of services and creates a more convenient place to live. However, having noted this, it is also acknowledged that a study on the value of housing in close proximity to socio-economic opportunities should ideally also be complimented by a longitudinal study of sustained occupancy of these developments over time and further spatial analysis of residents retail, social and entertainment habits. This opens up new avenues for further research on medium-density mixed housing in South Africa.

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