SUSTAINABLE LAND USE AND DEVELOPMENT: PERSPECTIVE ON COSMO CITY, JOHANNESBURG, SOUTH AFRICA

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Abstract

The rapid growth in housing demand since 1994 represents a mammoth task for both the present and future housing policy in South Africa. The new Developmental Local Government in an effort to address this challenge has placed high premium to informal settlement formalization and mixed income housing development. The rationale behind these two approaches is to address urban poverty, segregation and redevelopment. The goal of this paper is to appraise mixed income housing development as it relates to sustainable land use with the objective towards integration along racial and social grounds. The problem associated with South African housing policy in creating separate residential development based on income group has reached a crisis point in addressing housing challenge facing the country. The poor remain located on the peripheries of the cities where the land is cheap and far from their places of work and have to travel long hours to and from work. The City of Johannesburg is characterized by fragmented housing development that lack harmonious integration and this impact on infrastructural provision and access to job opportunities. Hence, this investigation tends to appraise the development of mixed income housing development in addressing these challenges. This investigation will be based on an exploratory research and will reviewing the success and challenges of mixed income housing development. Both published and unpublished literatures were equally use in this study as well as focus group discussion and interview with the beneficiaries as well as the principal developers and City of Johannesburg representatives. Integration of the poor into the urban system is achievable with effective and efficient Public Private Partnership.

Key words: Sustainable land use, Mixed income housing strategy, Public Private Partnership and Poverty alleviation.

INTRODUCTION

The search for the ultimate sustainable urban development and form perhaps now needs to be reoriented to the search for a number of sustainable urban forms which respond to a variety of existing settlement patterns and contexts (Jenks, et al, 19996:345). Studies have shown that the form of a town or city can affect its sustainability. It is widely accepted in the field of urban planning and related built environment that a relationship exists between the shape, size, density and uses of a city and its sustainability. However consensus is lacking about the exact nature of this relationship in urban studies debate (Williams, et al, 2000). The relative sustainability of, for example, high and low urban densities, or centralized and decentralized settlements is still disputed. Certain urban forms appear to be more sustainable in some respects, for example in reducing travel, or enabling fuel efficient technologies, but detrimental in others, perhaps in harming environmental quality or producing social inequality. To help to
understand what sustainable land use and urban development means it is imperative to understand the concept of sustainable development and then relate this to specific urban form. The most widely definition of sustainable development is that of the WCED (1987), which describes it as development which is capable of meeting today’s needs without compromising the ability of future generations to meet their needs. This definition contains inter-generational equity and social justice, as well as environmental awareness (Haughton and Hunter, 1994 cited in Williams, 2000: 3).

In view of this definition we now see ourselves being confronted with the question, “How do policy makers achieve the objective of building a sustainable city using a mixed-income housing development”? This is the critical question that lies at the heart of this research. We shall tackle this question not in a straightforward manner; instead we approach it by reviewing a specific land use development strategy the mixed-income housing project. The argument in using this case example is not to justify it as the only ideal model but to serve as one of the pathways towards achieving sustainable city. According to Guy and Marvin (2000 cited in Williams, et al, 2000) the achievement of sustainable cities is a process and not the result of implementing a particular model.

Mixed-income housing development strategy has attracted the attention of many scholars and also feature in many policy documents, namely, (Department of Housing South Africa, 2005; Duda, 2005; Fraser & Nelson, 2008; Hoek-Smit, 2002; Huchzermeyer, 2005; Marshall, 2005; Milligan, et. al, 2004; Smit et.al, 2006;). These scholars points out that mixed-income housing development is an innovative approach to housing delivery that provides a mixture of housing products to suit low income earners, middle income earners as well as high income earners.

Proponents of mixed-income housing at another angle posit that economic diversity within a neighbourhood would automatically enhance community interaction and improve neighborhood characteristics (Cole & Goodchild, 2001; Joseph, 2006; Kleinhans, 2004). Early studies on mixed-income housing initiatives were guided by the general hypothesis that enhanced neighborhood conditions-physical, political, and socioeconomic-translate into public goods that were broadly distributed across all households (Fraser & Nelson, 2008). Studies has shown that mixed-income housing does not automatically produce these hypothesized neighborhood-and household-level outcomes both in the U S (Collins, et al.2005; Kleit, 2001; Popkin et al. 2004; Salama, 1999 and Varady et al. 2005).

DeFilippis and Fraser (2008:2 cited in Onatu, 2010) in reaction to these findings question the premises on which mixed-income housing and neighbourhood (MIHN) policy were always based on the above stated reasons as they found themselves attracted to the ‘ideal’, in theory, but frustrated by its reality in “practice”. According to their research, these policies tend to ‘leave poor people in places without the social networks and informal social support of prior neighbourhood’ (ibid: 10). Poor urban neighbourhood is noted to have dense networks of social support that have been created out of necessities because services that are commodities in wealthy neighbourhood (childcare, for instance) must be negotiated as non-commodified when the participants do not have money. They noted that mixed-income policies have failed to create social mixing, networks, interaction as well as institutional services and capacities. Being in close proximity need not engender interaction, and when it does, that interaction may mean conflict as much as anything else. It is unclear whether or not the physical proximity of the rich and poor will lead to the rich even acknowledging, let alone understanding or
trying to understand the poor (De Filippis & Fraser, 2008:10). Using as example US Department of Housing and Urban Development’s (HUD) HOPE IV program, Fraser & Nelson (2008) noted that mixed-income developments can reduce the incidence of social problems related to concentrated poverty while providing opportunities for low-income households to gain access to better neighborhoods. Placed-based mixed-income housing initiatives they argue can play a role in creating a foundational environment in which other poverty ameliorating strategies can be more successful (e.g. Welfare to Work, Jobs Plus).

Schwartz and Tajbakhsh (1997) found that mixed-income represent the current direction of U.S. Housing policy, but caution that little is actually known about its social benefits, its costs, and the preconditions for its viability. According to their findings, research on mixed-income housing is necessary to determine the extent to which reducing the concentration of poverty can also reverse the social problems connected to poverty. Mixed-income housing are created through four different context, namely, density bonuses and other land-use regulations, special public housing programs and initiatives, State and Local housing programs, and nonprogrammatic mixed-income housing (private individuals and organizations building and sustaining mixed-income housing outside of any institutional framework that specifically promotes such housing) (Schwartz& Tajbakhsh, 1997:17).

Mahlangu (2007) in describing mixed-income housing strategy in South Africa noted that small rental units to go alongside bigger houses. South Africa’s first mixed-income housing development hits the market. "Jerusalem", in Fairland, northwestern Joburg, will see lower-income earners living side by side with more affluent homeowners. The plan is to build 187 houses on 9.3ha of council-owned land. Social housing units would take up 30% of the development. The 55m² social housing units will feature two bedrooms, a kitchen, bathroom and living room. They will be rented out for R1, 500 to R2, 000 a month to families earning between R3, 500 and R7, 000 a month. The other units, which will make up 70% of the development, are expected to sell at over R1.5 million. Initially, residents were extremely concerned about the original proposals for an extensive low-cost housing development in their area. Francois Viruly (2007) in commenting on this development stated that "The only issue that we need to watch out for is that we build such units in areas where there is sufficient infrastructure.

APPROACH AND METHODOLOGY
This paper looks at an attempt by the City of Johannesburg to co-opt residents of informal settlement into formal neighbourhood through mixed income residential development strategy. Research shows that isolation and poverty combine to
produce other disadvantages for neighbourhood residents leading to a host of negative outcomes (Coulton et al, 1996; Ellen and Turner, 1997; Jenks and Mayer, 1990; Land et al, 1991; Taylor and Covington, 1993). Although the term ‘mixed-income housing development (inclusionary housing)’ is becoming widely used, there remains certain gap and many open questions about how best to implement it, what are the expected outcomes and how can it improve the quality of life and prospects of low-income families? This research is based on the review of relevant literature, field recognizance survey, interview with developers and official of City of Johannesburg and synthesizes of Shift workshop research document on Cosmo City.

HISTORICAL CONTEXT
The cornerstone of the post -1994 housing policy was a new Housing Subsidy Scheme with a once-off capital subsidy target at the ‘poorest of the poor’ (Tomlinson, 2006: 88 cited in Onatu, 2010). The government housing subsidy is a grant that the government gives to South African citizens or permanent residents who need help to get a house of their own. Beneficiaries are not expected to pay it back, but it is not money in your hand. The money goes to the developer or builder to help you pay for your land or your house. A developer can be a private company, the local authority or a community organization. The housing subsidy scheme is divided into different categories, namely, project-linked subsidies, individual subsidies, consolidated subsidies, institutional subsidies, rural subsidies and people's housing subsidy. Many housing practioners consider South Africa’s housing programme to be one of the most successful of any country in history (Gardener, 2003:7). The publicly stated target was to develop one million subsidized houses within five years. On average 470 housing units were delivered in South Africa every day between May 1994 and May 2002 (Rust, 2003), affecting the lives of over 6 million people. According to one analyst, nowhere in the developing world have countries committed such vast resources to providing free or subsidized houses for the poor like South Africa (Sunday Times, 2007:20).

BREAKING NEW GROUND AND SUSTAINABLE HUMAN SETTLEMENT
This is a comprehensive housing plan for the development of integrated sustainable human settlement introduced by the government in September 2004 in view of oversight by the government in promoting the residential property market (http://www.info.gov.za). Slow delivery on new government-subsidized low-cost housing is often put forward as the cause of the continuous persistence of informal settlement. It is an approved government housing programme in the next five years that includes the development of low-cost housing, medium-density accommodation and rental housing as well as stronger partnership with the private sector; social infrastructure and amenities. Building multicultural communities in a non-racial society also aim the plan at changing the spatial settlement pattern through state housing. This national policy on informal settlement upgrading developed in response to international campaigns and out of government commitment to international agenda (Huchzermeyer, et.al, 2004).
Key strategic priorities are:

1. Accelerating housing delivery
2. Improve the quality of housing products and environment to ensure asset creation
3. Ensure a single, efficient formal housing market
4. Restructure and integrate human settlements.

While the above comprehensive housing programme notes the continued relevance of the state housing programme introduced in 1994, it flags the need to redirect and enhance various aspects of policy, and commits the Department of Housing to meeting a range of specific objectives which is basically the creation of sustainable human settlement (DoH, 2005: 4).

INTEGRATED RESIDENTIAL SETTLEMENT PROGRAMME (IRSD)

One of the key lessons learnt in the review of the outcome of housing programme since 1994 is that, owing to a variety of reasons, low-income settlements continue to be located on the urban periphery without the provision of social and economic amenities, as in the apartheid era (DHS, 2009). Hence a new programme has been introduced to facilitate the development of integrated human settlements in well-located areas that provide convenience access to urban amenities, including places of employment. The programme aimed at creating social cohesion. The integrated residential development programme (IRDP) provides for the acquisition of land, servicing of stands for a variety of land uses, including commercial, recreational, schools and clinics as well as residential stands for both low, middle and high income groups. The land use and income mix is based on local planning and need assessment (DHS, 2009).

CRITERIA FOR ASSESSMENT

- Lawfully reside in South Africa or permanent resident holders.
- A legally competent person to contract or declared competent by a court of law.
- Neither the applicant nor his or her spouse has previously benefited from government housing assistance.
- Have not owned fixed residential property before.
- Must be married or habitually cohabit.
- Single person must have financial dependant.

The Programme also provide for the creation of non-residential stand such as

- Institutional stand- Police stations, schools and clinic
- Businesses and Commercial stand
- Churches, Creche and Nursery
- Parks and Community facilities
HOUSING SUBSIDY QUANTUM

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(Source: DHS, 2009)

MIXED INCOME HOUSING DEVELOPMENT: IN COSMO CITY, JOHANNESBURG

Cosmo City emerged out of an urgent need to provide accommodation for the informal settlers of Zevenfontein and Riverbend who had been illegally occupying privately owned land 25km North West of the Johannesburg CBD. These informal settlements were characterized by substandard living conditions with limited access to basic services (Cowden, 2006 cited in Onatu, 2010). The socio-economic profile of both communities is based on low income levels, high unemployment rates and low educational levels amongst other breadline issues (Myburg, 2009). The idea was that Cosmo City would create jobs and stimulate local economic activity for these people. It is located north of R512 road and falls under Peri-Urban Land Use Zoning. The choice of the location for mixed-income housing project has been found to be of central important for economic viability. Finkel et al. (2000) noted that if a site is convenient and attractive, higher-income residents will be drawn to the newly built residence, especially if there is availability homeownership.

Cosmo City is very accessible and well located. It is a Greenfields development commissioned by the City of Johannesburg in conjunction with the Gauteng Provincial Housing Department (Cowden, 2006: 1). The project was conceptualized to stand out as a mixed-income residential development where people of different income groups
live in the same area utilizing similar amenities. The projects have been driven with so many difficulties, especially from surrounding neighbours who waged series of legal battle that the development will devalue their properties (www.worldbank.org/southafrica). The delay in this project also centers on NIMBY syndrome which plagues spatial distribution of human settlement throughout South Africa (Luc Limacher, 2009 cited in Onatu, 2010). The project was announced in 1997 but only commenced in 2005. Cosmo City tends to demonstrate that the supply led approach to housing delivery can be as slow as compared to demand-led approach.

The objectives of the development are:

- To be the first green-field developments that will endeavour to comply with integration and sustainability principles as per government policies and legislation
- To assist in meeting the pressing demand for housing in the northwestern part of the City of Johannesburg resolving the conflict between environmental consideration, economic consideration and social responsibility
- To make a statement towards integration along racial and social grounds and negative perceptions that exists around such integration
- To make a political inroad in the access of the poor to formal urban system.

Project Description and Planning
The project is located on 1100 hectares of land with vast wetland and Zandspruit river cutting through the site. Work started on-site on January 2005 and due to the vast size the project was divided into phases. It comprises of:

- 5000 – low income houses (income group R0-R3,500.00) with 1504 completed and each unit is 36m2 of floor space and consists of 2 separate bedrooms, bathroom space with a flush toilet and a living area. This are known as RDP houses.
- 3000 – Financed credit linked houses (income group R3, 501 –R9, 670) 702 completed. Subsidies are provided for people earning up to R7000.00. First National Bank (FNB) is a partner to this section of the project providing ‘step up’ loans and the Department of Housing will provide the subsidy. 1000 – social housing rental units (income group R1, 500 – R9, 670) still under construction
- 3, 300 – bonded houses (open market)
- 12 – Schools
- 40- sites for churches, clinics and crèches
- 43 – parks and recreational sites
- 30- commercial and retail centre
- 40ha – industrial park
- 300ha – environmental areas

Social benefit effect of the development
In looking at Cosmo City one of the questions that have always come to mind is the social benefit. Does the project benefit the life chances of low-income residents? What is the social interaction of the various income groups residing here? Although shortcomings of public housing and other projects have been noted in the literature but little research is available on the social benefit of residents of mixed-income
housing development (Schwartz and Tajbakhsh, 1997). In Cosmo City there are three schools. Two primary and high school with recreational facilities. These schools cater for the low-income earners and middle-income earners as well as residents living in the 5000 RDP ‘give away’ housing units provided plus high income earners living in bond houses and social housing schemes. According to one Sibongile ‘My children living with me in RDP house are going to the same school with other children from rich family living in bond houses”. The three parks equipped with various recreational facilities for children such as basketball court, swings and cricket nets serve all the community. The Hotel School is one of the unique social institutions in Cosmo catering for this diverse community. There is also housing support centre that provide information and assist the community on any issue.

Social Amenities
All the development has ample space for parking on site. 5% of the subsidies allocated to this project is reserved for disabled and 5% for right sizing (Zack et al, 2005). Three schools have been completed; two primary schools and one high school and both have been handed over to the Department of Education. Brophy and Smith (1997 cited in Onatu, 2010) find that the provision of attractive, onsite amenities and services will assist in drawing a critical mass of upper-income residents. One amenity that researchers find as a pre-requisite for drawing upper-income residents with children to mixed-income developments is access to safe and high-quality schools (Varady et al. 2005). Three parks were funded by the Johannesburg City Parks and are equipped with various amenities, such as basketball court and cricket net. An informal trading area is provided in the vicinity of the low-income areas to allow them to continue with income generating activities. There is a site designated for the establishment of churches and a catholic church is already up and functioning in Extension 0. It does not have a functional police station but presently uses the service of nearby Honeydew Police Station (Onatu, 2010).

Community Participation
Developing municipal understanding of community needs and priorities is noted to enhance a lot early opportunity to promote community participation. This is noted at early stage of the development of this project as we discovered. Through this strategy as noted by Plummer (1999) problems are identified, needs are assessed and partnership can be formed with communities to collect information. This is noted to provide ample platform to collecting information increases understanding and build strong community confidence and capacity. One of the success of Cosmo City is the level of participation as each of the extensions are governed by a representative leader who represents them at periodic general meeting with the managing developers. At such meeting issues affecting various extensions are discussed and problems are resolved. House rules as it applies to regulations, right and obligation of all residents are communicated to these representatives. This umbrella group of extension leaders forms an important instrument to help monitor and report important issues that the Developers might not notice in their routine checks on each site.
Challenges
The informal activities poses a lot of challenge to the City council as the proliferation of this if not controlled might result to slum and impact on the sustainability of the project. One other challenge is the problem of fountain and poor geological structure of the soil that impact on the neighborhood. The series of budgetary cut witnessed by the project is also of major concern to the project team. There is high visibility of road widening observed in most part of the area around the project site meant to address the increase in volume of vehicles as a result of this project.

CONCLUSION AND RECOMMENDATION
Mixed-income housing development as shown in this study incorporating various socio-economic grouping has portrayed an element of the use of settlement to aim at sustainable development. Private sector participation in housing development should be encouraged as most local authorities are struggling in terms of finance to address socio-economic issue and service delivery. Integrated sustainable human settlement can be developed without compromising and infringing on people’s comfort. There is need to strengthen the inclusion of mixed income (inclusionary housing) as a policy to form part of the Housing code chapter in South Africa. Mixed income housing has the ability to deal with South African highly segregated built environment as access to land is a very big issue and to acquire prime land for the location of the RDP houses is very difficult. The success of Cosmo City is the appropriation of land by the City of Johannesburg from private developer and this brought down the development cost. The need for intersectoral collaboration cannot be overemphasized in view of the project. There is need to further research on the extent to which land use regulation policies are monitored and adhered to by residents of this community.

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