

The use of Mixed-Income Housing Development to Address Poverty and Inequality, Based on Delphi Empirical Approach: A Case of South Africa

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Abstract.

Since the dawn of democracy in 1994, the Republic of South Africa (RSA) has been trying to address the aftermath and consequences of the apartheid regime. This comprises of the socio-economic, spatial, and political challenges that have persisted over the decades. These have had far reaching repercussions in the society to the extent that 25 years later after apartheid, the country finds itself with alarming rates of poverty, social exclusion, unemployment, and inequality. Literature has revealed that there is a direct relationship between poverty and inequality as well as access to socio-economic services / opportunities. Poor access to these services perpetuates exclusivity and thus inequality and marginalisation in all form and character.

The purpose of this study is to investigate how housing developments have been used in South Africa to address poverty and inequality. The aim is to understand how to plan for better and more socially and economically thriving communities through housing development, focusing specifically on aspects of development that contributes to addressing poverty and inequality.

Using a Delphi three round method of Inquiry of 20 experts, perceptions from a diverse panel of experts about mixed-income housing development were uncovered. In comparison to previous housing models, the study uncovered a significant paradigm shift in housing development and what a housing intervention should achieve. Since 2004 after the introduction of the Breaking New Ground Policy (BNG), the housing development approaches, and interventions have shifted away from just providing roof over once head to providing social asset to the poor and a whole range economic opportunities. The conclusion is that housing development by virtue of location, diverse housing typologies and tenure options is now part and parcel of integrated planning and the pro poor development agenda.

Keywords: Access to services, poverty, inequality, integration, and mixed-income housing.

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1. Introduction and Background

In the last two decades the Republic of South Africa (RSA) has been trying to address the social, spatial, political, and economic challenges that exist as a result of Apartheid.

These have had far reaching consequences in society that 25 years after apartheid, the country finds itself with alarming rates of poverty and inequality despite several government efforts. Poverty and inequality have a proportional relationship to access to socio-economic services. Lack of access to these services perpetuates exclusivity and thus inequality and poverty.

The housing issues worldwide are rooted in the definition of housing. Literature dating back to the 1970's highlights the significance of understanding the concept properly in order to deal with housing challenges. In this era housing was expanded beyond what people demanded to what could be provided (John Turner, 1972); implying that housing is more than just shelter, and that it has an underlying value system that emphasise human needs and aspirations, going beyond the house to opportunities, what those materials can provide, and what services are available to the beneficiaries of housing developments (Turner, 1972).

This is clearly understood in developed countries but greatly inconceivable in the developing world. In developed countries housing provision is and has been integrated with the social and economic infrastructural components, and therefore generally extended well beyond the provision of shelter only. Since the 1980's, particularly in developed countries, housing provision was seen as an extension around both the socioeconomic and physical infrastructural value system, with more emphasis on the contribution of the private sector in housing provision for lower income groups, with or without public subsidies (Murie, 2018).

In the African continent, most countries gained independence from an era of systematic oppression from the 1960's onwards (Simon, 1989). Free market models could not be introduced to address housing delivery challenges considering that at least half of the population were living in abject poverty (Wilkinson, 1998). As a result, a social approach was adopted to address poverty and inequality, an outcome of long term segregation and oppression, by providing government subsidised housing for the previously disadvantaged communities and individuals (Newton & Schuermans, 2013). To date there is at least an understanding that housing delivery goes beyond the provision of shelter only, but present opportunities that would otherwise never be realised without associated security and an opportunity for the poor to actively participate in the economy.

Acknowledging the importance of housing and its underlying value system, this article is interested in what housing affords the poor. The concept of inclusive development which focuses on three main aspects, the social, ecological, and political dimensions of development will be unpacked (Gupta & Vegelin, 2016). This is rooted in the concept of promotion of human rights, equality, and redistribution (Sachs, 2004), as was expressed and expounded in the Millennium Development Goals (MDG's) and now evident in the SDG's. It aims to empower the poorest of the poor (Gupta, et al., 2015) by creating social and economic opportunities for them through participation and inclusion in all aspects of development through investment in human capital, with the intent to improve access to infrastructure, amenities, quality living conditions and socio-economic well-being.

The SDG’s present inclusive development as having three dimensions, while the MDG’s emphasised more on social inclusiveness and less on ecological and political inclusiveness. Social and economic inclusivity is marked by principles targeting poverty and inequality, inherent in the SDG’s according to Gupta and Vegelin (2016). This research study assess the following:

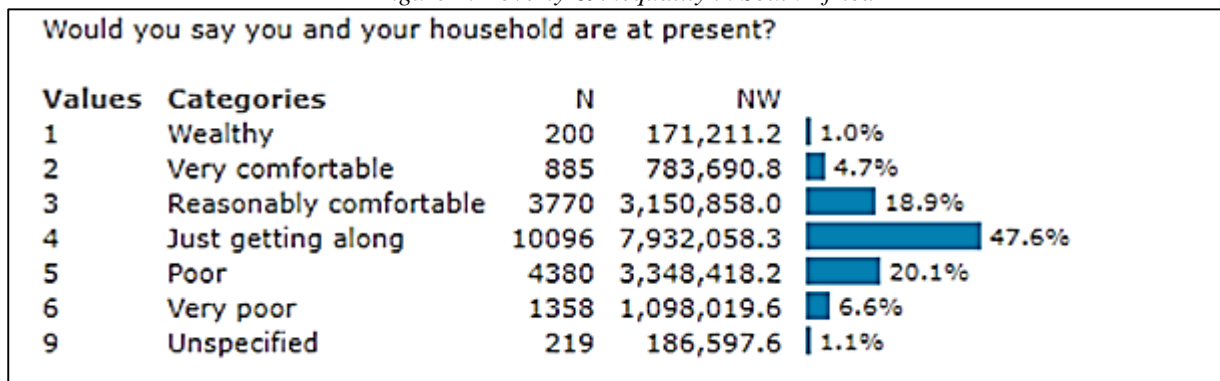
How the provision of housing, especially mixed-income housing can provide social protection, which entails access to basic infrastructure, amenities, improved conditions of living and socio-economic wellbeing for the poor and low- middle income groups.

2 Lessons from Review of Literature

2.1 Poverty & inequality in South Africa

In a report by Statistics South Africa dated March 2018 South Africa is ranked as one of the most highly unequal countries in the world with very high unequal access to opportunities. This is entrenched strongly in the location of settlements for those at the bottom of the food chain, the poor, the working class, the vulnerable (World Bank, 2018). “Access to quality basic services, such as education, health care, and essential infrastructure (such as adequate housing), provides a better understanding of the nature and causes of inequality as well as outcomes” (World Bank, 2018, p. 45). Poverty and inequality are thus the main drivers of exclusivity in the social and economic spaces where people negotiate their daily survival.

Figure 1: Poverty & inequality in South Africa



Source: (Statistics South Africa General Household Survey 2018)

2.2 Access to Housing and Development in South Africa

Housing is an essential socio-economic aspect of development (Henilane, 2016) and according to the Sustainable Development Goals (SDGs) it is one of the basic human needs and imperative to sustainable development (Willis, 2016). Despite the understanding of the importance of housing in developing sustainable communities (Musvoto & Mooya, 2016); there is still a lack of understanding of the role of housing in alleviating poverty and equality (Henilane, 2016). Housing is still largely viewed as a consumer assert but according to Michael Pacione (2009) housing is a basic human right; the constitution of South Africa agrees with this and thus, housing cannot be regarded as a mere consumer assert (Pacione, 2009).

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Access to housing and human settlements has implication and consequences on human well-being, economic progress, and social stability of society. Thus, making it important and imperative for government and other social partners to expand quality housing supply in order to better the living standards of millions of people (Morange, 2002). Decent housing studies has shown provides protection, privacy, and self-respect (dignity), a place for personal development, an assert, and space for leisure activities and social interaction (Marais & Ntema, 2013). By implication housing is both economic and social in its nature and it is a big constituent of social wellbeing (Turok & Borel-Saladin, 2016).

South Africa has been confronted with lack of participation, disproportion in location of low cost housing developments, rapid urbanisation, and unemployment challenges, in addition to management and corruption challenges (Manomano, et al., 2016). With regards to housing development location, in cities such as Paris for instance, housing development followed employment location and job availability, so development followed where the opportunities were (Buczowska & de Lapparent, 2014). Whilst in South Africa there is a culture of perpetuating housing delivery in peripheral locations, in most cases to further locally based political milestones, and agendas as was the case with Botshabelo (Marais, et al., 2016).

Housing policies in South Africa in the first 20 years of democracy have resulted in monotonous and uniform settlements on the periphery; poor quality units, large numbers of poor people concentrated in the “old black townships”; and poor-quality residential communities without the necessary social facilities and supportive infrastructure. Unintentionally, majority of these policies reinforced the apartheid spatial structure in post-apartheid South Africa (Khan, 2014). Scholars has proven that many of these policies were detrimental to housing development (Levenson, 2012), didn't take into account the scale of the housing problem (Björkman, 2013), and moreover mismatch resulting to the growth and expansion of informal settlements in places of economic opportunity (Ren, 2018), as evidence in many countries and cities despite housing delivery, South Africa, India and Brazil being prime examples (Alves, 2016).

According to a study by Ibimilua (2011), in many African countries housing policies and programmes were blunt instruments in response to very diverse housing needs that were not fully understood. This kind of approach in South Africa failed to highlight the importance of rental housing or alternative housing options. In a dynamic economy and being developing country South Africa, the hopes of bringing in the private sector to the provision of housing for low income groups proved difficult to achieve. Thus, very little was achieved as investment risks remained high (Goebel, 2007). Related literature assert that housing development should be on well-located mixed-use and mixed-income housing projects; that are championed by both the public and the private sector, so that sustainable communities can be realised (Newton & Schuermans, 2013). Encouraging more diverse forms of housing through well-structured housing programmes, paying more attention to social and affordable rental housing options is advocated for (Arthurson, 2002). This will encourage integrated settlements that are linked to the social aspects of development such as jobs and socio-economic opportunities thus, improving inclusivity.

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2.3 The shift in Policies overtime from basic housing to adequate, integrated & sustainable housing

The shift from the provision of basic housing to what is now known as integrated sustainable housing is marked by four eras starting from 1994, after South Africa became a democratic state. This is marked by policy shift from basic housing to adequate housing, to integrated housing, to integrated sustainable housing. The most relevant policies and pieces of legislation were identified for the purposes of this paper. They provide theoretical and conceptual practical strategies and approaches in informing development and their intention to address housing and community development challenges, as well as poverty and inequality. The focus of these policies is streamlined, as they aim to create a society that is socially and economically functional comparable to other countries.

Post-Apartheid shift from 1994 – Basic housing

The White Paper on Housing of 1994 was the first attempt at addressing the housing challenges in South Africa. It was part of the Reconstruction and Development Programme (RDP) and it aimed at creating viable, integrated settlements where people would not only be provided with basic shelter, but also to have access to infrastructure, opportunities and services (Wilkison, 1998). Security of tenure was the most important part of the success of the initiative / era together with the participation of other stakeholders, such as the private sector (Goebel, 2007). This policy emphasis during this period, however, ended with unintended consequences such as development on the periphery, corruption, poor-quality housing, and lack of community participation. This led to the creation of socially and economically disadvantaged communities, exclusively inhabited by the poor (Khan, 2014).

Post 1996 Constitution and Quest for Adequate housing?

The policy which approaches housing challenges from a different perspective is the National Housing Act of 1997. It recognises housing as a basic human right, and an integrated part of planning as well as a vital part of the socio-economic well-being of a country and by implication of a cities. It brought forth the most important principles of community development. According to Mackay (1999) The National Housing Act highlighted the following principles:

- Housing must address poverty and inequality by addressing the vulnerability of the poor,
- The housing process must deliver a variety of housing and tenure opportunities (Manomano, et al., 2016),
- It must be economically and financially affordable,
- It should be integrated in a way that creates economically and socially viable communities (Khan, 2014),
- It must facilitate participation of all affected stakeholders and investors and also ensure that people (low- and middle-income groups) can fulfil their own housing needs in a socially and economically sustainable environment (Khan, 2014).

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The National Housing Act of 1997 was greatly influenced by the Constitution of South Africa of 1996. Section 26 of the Constitution recognises access to housing as a basic human right, which relates to the above-mentioned principles. Under Section 26, it stipulates that everyone has the right to access to adequate housing and that the state must ensure that this right is progressively realised provided all the resources available (Heyns & Brand, 1998). This section of the Constitution has raised debates on the meaning of “adequate housing” in South Africa, which was already intensifying internationally. This influenced South African policies greatly as it led to the recognition of the global agenda. However, to date the concept of adequate housing is still being debated.

Post the Period of 2000 – Integrated housing development

In terms of the literature, the National Housing Code 2000 was one of the policies that were put in place to provide standards for housing delivery, specifically for low income households. It was aimed at implementing state social housing programmes that were supposed to provide secure tenure, empowerment, and access to social services (Manomano & Tanga, 2018). But despite its’ good intentions, it also resulted in unintended negative consequences such as restricting the relationship between the public and private sector in providing housing, in illegal ownerships, informality and consequently poverty, social stress and vulnerability due to poor management of the implementation process (Hoossein, et al., 2016). The Housing Code was reviewed in 2013 to address some of these issues, and to improve and to retrofit existing social housing built during the RDP (Mohlakoana, et al., 2017). Subsequent to the Housing Code came the Breaking New Ground, 2004. A directive which basically turned things around for housing development, more especially in the urban areas. It focused more on the role of the local government in responding to housing demands, moving away from a supply driven to a demand driven housing development. Whereby, the local government determines the where, how and type of housing to develop (Ziblim, 2013). It aimed to promote housing development in desirable locations, favouring in situ-upgrades over the eradication of informal settlements. What is important to note with this policy is that it emphasised the creation of sustainable socio-economic living environments that integrate socio-economic services with infrastructure and land use and with the private sector being the main provider of low-cost housing opportunities to ease the burden on the government (Tomlinson, 2011), thereby adopting a radical private-public partnership approach. The BNG resulted in award winning housing developments such as the Fleurhof Development.

Post 2010 - Integrated sustainable development

The most recent and relevant policies, in the subject of housing and community development, are the National Development Plan (NDP) 2030, and the Draft LED Framework of 2018. Both these policies address a diversity of issues, but also recognise that sustainable and inclusive development underpin the development of sustainable and viable communities. The main focus of the NDP Outcome 8, is promoting access to affordable and quality living environments by addressing dysfunctional settlements patterns and addressing limited housing stock. It encourages the prioritisation of development in cities, around development corridors, transport hub and economic nodes, preventing housing development in poorly located areas and also ensuring access to basic services, and economic opportunities (Karriem & Hoskins, 2016).

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In terms of the Medium Term Strategic Framework (MTSF) 2014-2019, its key targets which are strategically aligned with the targets of the NDP 2030 are to capacitate municipalities so that they are able to effectively deliver basic services to the people of South Africa. The targets include increasing water supply, sanitation electricity and improve public participation (Republic of South Africa, 2014). Many of the housing targets were meant to be achieved by 2019; 2019 has come and gone, there are no records as yet measuring whether these were achieved. These targets include:

“Adequate housing and improved quality living environments, with approximately 1.4 million more households living in new or improved housing conditions by 2019. A functional and equitable residential property market with a target of 110 000 new housing units delivered in the affordable gap market by 2019” (Republic of South Africa, 2014, p. 27)

The LED on the other hand encourages the creation of economically viable communities where people can negotiate their daily living in a sustainable and inclusive manner (Abrahams, 2018).

3. Delphi methodology and Procedures

3.1 Delphi Study

A Delphi study typical requires a selection of a panel that has full knowledge of the topic being studied, work in an organisation relevant to the phenomenon being studied and a panel with expert knowledge of the topic currently being studied (Hsu & Sandford, 2007). This process is appropriate when trying to understand and correlate expert opinions and understand where there are diversions or convergence in understanding of the present and the possible future (Grobbelaar, 2007). The idea is that, well informed respondents with full insight and experience on the topic are best suited to participate in a rigorous contestation of ideas. The Delphi Technique is suitable also in studying long term issues, such as the housing issues in South Africa and it can provide insight to policy formulation, which is very important to this research and specifically on the topic of mixed income housing development.

The selection of the experts for the Delphi procedure involved choosing participants. A total of 20 experts were selected because they, in one way or the other: planned the development (or plan similar developments), they have the necessary know how of the overall functionality; executed the plans; influenced the outcome; and they are continuously doing research regarding improving South African cities, their growth and development; and in understanding the housing landscape of South Africa.

This study and investigation involved a two round Delphi survey. A summary of answers from all panellist in round 1 were used to formulate more specific questions that formed round 2 of the survey. The questions related to housing development developed through the Breaking New Ground Policy of 2004, which was a Post-Apartheid policy aimed at developing inclusive communities. The panel was requested to respond to these questions. These were measured as a total percentage of all responses in each question. They responded through an online platform known as Survey Monkey. This platform was used to ensure that experts did not answer more than once.

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According to Varela, et al (2016) online platforms, specifically Survey Monkey are best suited for collecting data in a secure manner in the digital age. They assert that the platform “has provided some positive aspects, such as: easier access, avoidance of input and data coding errors, a faster distribution and saving time and cost. However, some negative characteristics have been detected, for instance: response rates and the length of the questionnaire” (Varela, et al., 2016, p. 78). The maximum of ten questions of questionnaire did not affect the study as the researcher already had questions within the limits, of which could have been extended to more if the need arised.

In a similar Delphi study conducted by Gill, et al. (2013), they used Survey Monkey and found the platform yielded higher response rates and data quality was improved in their study, the platform was also user friendly and made the process very efficient. It is however important to acknowledge that “ethical review guidelines and processes have not yet kept pace with online research practices” (Gill, et al., 2013, p. 3327) and this needs to be taken into consideration and the traditional research guidelines adapt to the changes in the digital world.

3.2 Consensus Building

The mode of consensus is the percentage of panellist who agree and strongly agree to the statement or disagree and strongly disagree. According to Hsu & Sandford (2007) data analysis rules in a Delphi survey on how to measure the level of consensus are quite flexible and open to interpretation. The researcher decides what each range represents (Hsu & Sandford, 2007), this is also shared by Nworie (2011). For this study, the researcher decided that if at least 60 percent of the panel agree and strongly agree or disagree and strongly disagree on the five-point scale the assumption is that consensus has been achieved and thus, does not warrant further investigation. These two sides will be regarded as positive and negative consensus. Positive consensus is when +60% agree and strongly agree and negative consensus is when +60% disagree and strongly disagree. There is a lot of recommendations of what consensus is in a Delphi study in the literature, most of the decisions on which measure to use are influenced by the research aim, the sample and the number of respondents (Hassan, et al., 2000). Some scholars define consensus as having achieved at least 51% agreement (Loughlin & Moore, 1979), others 60% (Seagle & Iverson, 2002), 70% (Green, et al., 1999; Hsu & Sandford, 2007) and even 80% (Crisp, et al., 1997). The questionnaire was a five-point Likert scale. Thus, the researcher decided to use 60 percent as a measure of consensus just like the study conducted by Seagle & Iverson (2002).

3.3 Consensus: Housing, poverty & inequality

It is evident from the literature that South Africa has been characterised by enormous social and economic exclusion of the poor, the working class and the venerable for the longest time even after the systematic exclusion was abolished in 1994. This is reflected in the city’s structure, the movement patterns, and the location of people and also how people negotiate their survival daily. This makes it an important matter to understand how the past decades has turn the tide against exclusion from social and economic opportunities, from engaging in social and economic development and leveraging any resource available to get out of poverty.

The table below is a summary of the Delphi survey:

Research Question	Questionnaire: Questions/Statements	Consensus/Results	Conclusion
Question 1: What kind of communities are being currently developed and where, as it relates to housing development?	1.Cities been creating affordable communities (affordable to different income groups) and inclusive communities (socially & economically) as it relates to housing development.	Positive consensus: 50% + 18% = 68%	Round 3 not required.
	2.Cities have been creating integrated communities (different stakeholders, land uses, housing options, public transport) as it relates to housing development.	Positive consensus: 48% + 18,8% = 62.6%	Round 3 not required.
Question 2: Does the current strategy and approach in affordable housing policy and development adequately address poverty and inequality?	3.Housing policies have improved access to socioeconomic amenities, services, and infrastructure for low-middle income groups.	Positive consensus: 81,3% + 6,3% = 87.3%	Round 3 not required.
	4.Housing development strategies have the potential to transform the spatial economy.	Positive consensus: 62,5% + 25% = 87.5%	Round 3 not required
	5.Low-Middle income housing can significantly reduce poverty and inequality by providing access to secure land ownership to low-middle income groups.	Positive consensus: 25% + 37,5% = 62.5%	Round 3 not required

(Source: Authors field data)

The findings shows that 68,8% of the panel concur that SA cities have been creating affordable communities (affordable to different income groups) and communities that are inclusive both socially & economically as it relates to housing development. While 62.3% concur, that cities have been creating integrated communities through the involvement of different stakeholders, diversifying land uses, housing options and transportation options where housing is being development. 87.3% of the respondents positively concur that the housing policies most South African Cities have improved access to social and economic amenities, services, and infrastructure for low-middle income groups.

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87.5% positively concur that the housing strategies have the potential to transform the spatial economy and 62.5% positively concur that Low-Middle income housing can significantly reduce poverty and inequality by providing access to secure land ownership to low-middle income groups.

4 Discussions and Result

It has emerged that South African cities since the BNG in 2004 have been trying to promote and create affordable, inclusive, and integrated communities. Through the National Development Plan 2030, each city's Spatial Development Frameworks and their Regional Spatial Development Frameworks, Integrated Development Plans and Local Economic Development Plans they have been pushing this agenda as its key to sustainability. The pro poor agenda has ensured that low-middle income groups are located close to social and economic amenities through the development of low-middle income housing in close proximity to these services. This is explicitly communicated in the National Development plan 2030.

The housing developments are integrated both socially and economically as proven by previous research, allowing the residents better access to social and economic services, amenities, and facilities. This allows the poor and vulnerable, people who would otherwise never realise living in these areas because they cannot afford it, to live in well-established communities. But, very often most of these developments end up very expensive for the intended beneficiaries to live in. The Fleurhof development is one such development where people earning above R7500 ended up living in the development pushing out those earning between R3500 and 7500 out of the market. Clearly housing can do more than provide a roof over the head, it can protect the dignity of people and improve their general wellbeing. Specifically, low-middle income housing can improve the spatial economy and the relationship between people and space. Where people live and work is a great determinant of the social dynamics of a city which in turn determines its functionality. The communities that are currently being developed in the city are driven by both private and public sector investments. Making PPPs the best and suitable low-middle income housing delivery mechanism is recommended. The public provides a suitable environment for private sector to develop through ensuring availability of services and promoting development where there are services through policy mechanisms.

In the effort to integrate different income groups, different housing tenures and typologies are used and suggested. This has resulted in communities that are diverse and rich in culture which goes a long way in creating a close neat community. This is also evident in strictly private housing developments and through the growing advocacy for Inclusionary Housing Policies which aim to ensure that low and middle-income groups are catered for in private residential developments that would otherwise be developed exclusively for only those who can afford. The Inclusionary Housing Policy has been adopted by the City of Johannesburg, other cities such as Ekurhuleni are still developing the policy.

4.1 Socio-economic opportunities of low-middle income housing

Housing is a crucial socio-economic aspect of development (Henilane, 2016). In terms of the SDGs, it is one of the basic human needs and imperative to sustainable development (Turok & Scheba, 2019). It has emerged from this study that there are plenty of opportunities in

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developing low-middle income housing. These include improving the structure of the city, people's lives, and their general social and economic well-being.

Socio-economic opportunities identified:

- It provides the opportunity for home ownership by the working poor which also contributes to their assets, economic integration and improves the quality of people's lives across all income groups. Low income groups can enter the property market that they would otherwise never afford.
- Housing development in close proximity to socio-economic opportunities is maximised, creating diverse housing opportunities, promoting cultural diversity and spatial and socio-economic sustainability where urban regeneration, urban infill development is promoted.
- Access to education, amenities such as clinics, parks, and eradication of poverty through access to social and economic opportunities is made possible.
- It improves livelihood strategies through access to resources to make a living.
- There is an opportunity to curb urban sprawl while dealing with the housing backlog that exists in the city.
- Low income household have the opportunity to have access to sustainable public transport systems, people get to live close to where they work and enjoy improved access to amenities which improves their general well-being.
- It promotes social cohesion and Integrated human settlement, where a diversity of people lives and work together.
- It encourages inclusiveness.

According to Michael Pacione (2009) housing is a basic human right; and it cannot be regarded as a mere consumer asset (Pacione, 2009). It is a transformative tool in making a community work, a city work, and a country work. The study has revealed that developing diverse and varying housing options and opportunities can improve access to basic services, amenities, liveable safe spaces, opportunities (social & economic), social and physical infrastructure. In developing long term sustainable communities housing can go a long way in restructuring the spatial configuration of the city over time – creating well planned, resilient, self-sufficient cities, looking beyond the here and now. These opportunities can be maximised through the involvement of different stakeholders. The transformation agenda which is very important to the sustainability and inclusivity agenda; and can only be realised through PPPs because together they can transform land ownership which improve access to other social and economic assets for millions of people that are currently economically marginalised.

An inclusive community is characterised by affordability (not being developed exclusively for the poor or the rich), having diverse housing typologies, having equal access to services and amenities and diverse transportation options. This presents a great opportunity for low-middle income groups to be economically emancipated through access to means that can drastically improve their quality of life and their general social and economic wellbeing.

Compact, mixed use and affordable developments are arguably the ideal development for creating better living spaces. First, they promote better thriving communities as they create a

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greater variety of activities, amenities, work, and leisure in close proximity to each other. Secondly, they are economical comprehensive as they promote affordable urban housing, reduces the cost of living through reduced travel cost, maintenance, and expenditure cost. Third, the infrastructure can be offered cost effectively per capita in a more compact inclusive urban environment. This promotes sustainability, social equity, and integration in the urban fabric.

4.2 Strategies in addressing poverty and inequality

It has been revealed that the prevailing principle in housing and development in general is Spatial. The location of people and supporting amenities is of paramount importance. Housing development is key to ensuring people are at the right place to support the social and economic functionality of the city. Policy provides a blueprint of what is intended and how it can be achieved. The principles identified through this research are intended to guide development and decision-making processes to achieve Spatial integration (transformation), Social and spatial restructuring, to create liveable urban environments, Sustainable human settlements and to facilitate, coordinate and manage development.

The emphasis is on space, how people and business negotiate their social and economic wellbeing within space. Most of the principles are still not being fully embraced and put into practice in a manner that can affect significant economic and social inclusion. Like the RDP policy, it had the potential to transform the spatial, social, and economic structure of the country, creating liveable and sustainable human settlements, but become a fruitless experience with focus on housing quantity instead of quality living spaces. One of the main principles in South Africa, which is the most prevailing principle in development is *spatial integration*. This means diverse urban form, structure, uses, housing options and overall diversity in development. This principle has potential to resolve urban inefficiencies as identified in the NDP 2030. It can promote land development in locations that are sustainable and limit urban sprawl; and optimise the use of existing resources and infrastructure as entrenched in SPLUMA 2013. This goes a long way in reducing poverty which is perpetuated by inadequate access to services.

De Soto (2001) argues and supports this result by noting that poverty is a result of lack of access to collateral assets which have the potential to eventually increase wealth. Most people are excluded from accessing housing by the capitalist development process, those who afford get those who does not well they do not get anything. However, the economic system is just that a system, that can be improved to work towards inclusive development.

Chambers (2006) also argues and reconfirms this assertion that poverty is multidimensional. Understanding the causal elements that underly poverty and inequality goes beyond academic significance, since policy makers determines response to poverty and inequality. It can be noted that poverty in South Africa is multidimensional as asserted by Chambers and Pacione, it is caused by institutional malfunction which has to do with failure to plan and manage, maldistribution of resources and opportunities. This manifest itself in the inequitable distribution of resources and also structural class conflicts which are divisions that exist in order to maintain the economic system. All these manifests in the relationship between the disadvantaged, the underprivileged, the working class, Bureaucracy, and the political and economic structures. This combined affect the economic and social fabric of the country and its cities.

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There is no argument that housing is an asset. Thus, a successful housing intervention can do much to reduce poverty. It can dramatically expand a low-income household's asset base and improve general wellbeing. This study has revealed that the South African housing development strategy is transformative, and housing developments provide opportunities for secure tenure to low and middle-income households by providing a variety of tenure options. People who don't have any means at all can own houses through the social housing provision, some can own housing at a low cost through the FLISP/Gap housing provision and those who don't intend to stay in one area also have the opportunity to rent at a low cost through the BNG rental housing. There is option and choice in these housing developments for low and middle-income households to own properties and expand their asset base.

The transformative nature of the South African strategies and approach has resulted in low and middle-income households moving closer and closer to social and economic opportunities, to better transportation infrastructure and services, access to better schools and employment opportunities. All these go a long way in addressing issues of inequality. In an environment where all income groups have access to the same services, the gap between the rich and the poor in terms of access to social and economic services is reduced.

The need for relatively higher density land uses and affordable housing, especially in close proximity to major employment nodes, is becoming more and more significant due to various reasons, mostly entrenched in the sustainable cities' global development agenda. It is in the interest of the poor and marginalised to provide affordable residential properties where there is already an existing infrastructure, complimentary uses, and social facilities. This creates liveable neighbourhoods and stewardship between the government and the public in the efficient and proper management of resources, which consequently result in the provision of quality services cost effectively per capita to both the rich and the poor.

It is notable that, the strategies and approaches in South Africa have been to encourage development in close proximity to social and economic amenities, services, and infrastructure. From the Breaking New Ground of 2004, NDP 2030 and the recently approved Inclusionary Housing Policy 2018 which is gaining traction all over the country; the strategy has been upheld consistently and improved over time.

5 Conclusion

This study concludes by noting that housing provision should go beyond the physical structure to building integrated community. South Africa since the advent of democracy in 1994 has evolved from the era of mass housing without much consideration for quality to the provision of integrated sustainable human settlements in line with SDG. The use of Delphi as employed in this research reveal that consensus can be reached and arrived at by selected experts through survey monkey with high agreement that housing strategy of mixed-income can provide inclusive and affordable community with easy access to social amenities. There is evidence from this research that focus should also shift to public private partnership for the provision of housing. Future research should investigate the livelihood strategies and economic opportunities available in a mixed-income housing project to ensure job creation and poverty alleviation. Policy focus should target more the vulnerable and the poorest of the poor who most of the time get dislodged and marginalised by a given housing strategy.

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Acknowledgment

This paper is an output of the Masters' Minor Dissertation in the Degree Master of Sustainable Urban Planning and Development in the University of Johannesburg, South Africa.

Reference

Abrahams, D., 2018. Chapter 7: Local economic development in South Africa: A useful tool for sustainable development. In *Local Economic Development in the Changing World*. In: *In Local Economic Development in the Developing World*. s.l.:Routledge, pp. 131-145.

Alves, G., 2016. *Slum Growth in Brazilian Cities*. [Online] Available at: <https://ideas.repec.org/p/dbl/dblwop/958.html> [Accessed 16 3 2019].

Anon., . *GAUTENG HOUSING DEVELOPMENT rental housing development AFFORDABLE HOUSING*. [Online] Available at: <http://www.gpf.org.za/Projects-Funded> [Accessed 14 3 2019].

Anyanwu, J. C., 2014. *Determining the Correlates of Poverty for Inclusive Growth in Africa*. [Online] Available at: <https://ideas.repec.org/a/ris/eueclt/0021.html> [Accessed 13 5 2019].

Arthurson, K., 2002. Creating Inclusive Communities through Balancing Social Mix: A Critical Relationship or Tenuous Link?. *Urban Policy and Research*, , 20(3), pp. 245-261.

Arthurson, K., 2004. From stigma to demolition: Australian debates about housing and social exclusion. *Journal of Housing and the Built Environment*, Volume 19, pp. 255-270.

Barros, C. P. & Gupta, R., 2017. Development, poverty and inequality: A spatial analysis of South African Provinces. *Journal of Developing Areas*, 15(1), pp. 19-32.

Becker, P. E., 1998. Making Inclusive Communities: Congregations and the "Problem" of Race. *Social Problems*, , 45(4), pp. 451-472.

Björkman, L., 2013. Cities With 'Slums': From Informal Settlement Eradication to a Right to the City in Africa by Marie Huchzermeyer. *Journal of Urban Affairs*, , 35(1), pp. 124-126.

Brundland, G. H., 1987. *Brundland Commission Report: Our Common Future*, Oslo: Oxford University Press.

Buczowska, S. & de Lapparent, M., 2014. Location choices of newly created establishment: Spatial patterns at the aggregate level. *Regional Science and Urban Economics*, Volume 48, pp. 68-81.

Calavita, N., Grimes, K. & Mallach, A., 1997. Inclusionary housing in California and New Jersey: A comparative analysis. *Housing Policy Debate*, , 8(1), pp. 109-142.

Calgro m3 Group, 2016. *Calgro m3 Group*. [Online] Available at: www.calgrom3.com/index.php/fleurhof [Accessed 18 February 2019].

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- Carson, S. S., 2010. Outcomes research: methods and implications.. *Seminars in Respiratory and Critical Care Medicine*, , 31(01), pp. 003-012.
- Cochran, W. G., 1977. *Sampling Techniques* (. 3rd ed. New York: Wiley & sons.
- Crisp, J. et al., 1997. The Delphi Method?. *Nursing Research*, Volume 46, pp. 116-118.
- De Soto, H. G. P. G. I. S. Z. a. N. R., 2001. *A qualitative assessment of poverty in 10 areas of Albania.*, Washington DC: Social Development Unit of World Bank (ECSSD).
- Droste, C., 2015 . German co-housing: an opportunity for municipalities to foster socially inclusive urban development. *Urban Research 7 Practice*, 8(1), pp. 79-92.
- Fosu, A. K., 2015. Growth, inequality and poverty in Sub-Saharan Africa: Recent progress in a global context. *Oxford Development Studies*, 43(1), pp. 44-59.
- Gill, F., Leslie, G., Grech, C. & Latour, J., 2013. Using a web-based survey tool to undertake a Delphi study: Application for nurse education research. *Nurse Education Today*, 33(11), pp. 1322-1328.
- Goebel, A., 2007. Sustainable urban development? Low-cost housing challenges in South Africa. *Habitat International*, , 31(31), pp. 291-302.
- Grobbelaar, S. S., 2007. *Chapter 6 - Data Gathering: Delphi Method*, Pretoria: University of Pretoria.
- Gupta, J., Pouw, N. & Ros-Tonen, M., 2015. Towards an elaborated throy of inclusive development. *European Journal of Development Research*, Volume 27, pp. 541-559.
- Gupta, J. & Vegelin, C., 2016. Sustainable development goals and inclusive development. *International Environmental Agreements: Politics, Law and Economics*, Volume 16, pp. 433-448.
- Hammer, J., . A Look Into Brazil's Makeover of Rio's Slums | People *Smithsonian*, , 43(9), p. 44-53.
- Hassan, F., Keeney, S. & Mckenna, H., 2000. Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing*, 32(4), pp. 1008-1015.
- Haughton, G., 1999. Environmental Justice and the Sustainable City. *Journal of Planning Education and Research*, 18(3), pp. 2333-243.
- Henilane, I., 2016. Housing Concept and Analysis of Housing Classification.. *Baltic Journal of Real Estate Economics and Construction Management*, Volume 4, pp. 168-179.
- Heyns, C. & Brand, D., 1998. Introduction to socio-economic rights in the South African Constitution.. *Law, Democracy & Development*, 2(2), pp. 153-167.
- Hoossein, S. T. R. et al., 2016. Disaster Management Policy Options to Address the Sanitation Challenges in South Africa.. *Journal of environmental health.*, 78(7).
- Hsu, C.-C. & Sandford, B., 2007. The Delphi Technique: Making Sense of Consensus. *Practical Assessment, Research & Evaluation*, 12(10), pp. 1-5.
- Ibimilua, A. F., 2011. The Nigerian National Housing Policy in Perspective: A Critical Analysis. *Journal of Social Development in Africa*, , 26(2), pp. 165-188.

18 - 20 September, 2020

Jantzen & Ann, E., 1998. Book Reviews: Resources for Creating Inclusive Communities. *Electronic Journal for Inclusive Education*, , 1(1), p. 5.

John, B., 2008. *Succeeding with your Master's Dissertation: A step-by-step handbook*. New York: Open University Press.

Karriem, A. & Hoskins, M., 2016. From the RDP to the NDP: A critical appraisal of the developmental state, land reform, and rural development in South Africa.. *Politikon*, 43(3), pp. 325-343.

Kendall, E. K. & Kendal, E. J., 2010. *Systems analysis and design*. 8th ed. s.l.:Pearson.

Khan, M. M., 2014. *Creating Sustainable Human Settlements using Integrated Housing Developments on infill Sites: A Case Study of Fleurhof, Johannesburg*. [Online] Available at: <http://wiredspace.wits.ac.za/handle/10539/20468> [Accessed 14 3 2019].

Leedy, P. D. & Ormrod, J. E., 2014. *Practical Research, Planning and Design*. 10th ed. Harlow: Pearson Education Limited.

Levenson, Z., 2012. Cities with 'Slums': from informal settlement eradication to a right to the city in Africa (review). *Transformation: Critical Perspectives on Southern Africa*, , 78(1), pp. 133-143.

Loughlin, K. & Moore, L., 1979. Using Delphi to achieve congruent objectives and activities in a pediatrics department. *Journal of Medical Education*, Volume 54, pp. 101-106.

Lustig, N., 2016. Redistribution in middle income countries: Brazil, Chile, Colombia, Indonesia, Mexico, Peru & Sout Africa. *Journal of globalozation and development* , 7(1), pp. 17-60.

MacDonald, S. & Headlan, N., 2011. *Research Methods Handbook: Introductory guide to research methods for social research*. Manchester: CLES Express Network.

Mackay, C. J., 1999. POLICY REVIEW Housing Policy in South Africa: The Challenge of Delivery. *Housing Studies*, , 14(3), pp. 387-399.

Maliene, V., Howe, J. & Malys, N., 2008. Sustainable Communities: Affordable Housing and Socio-economic Relations. *Local Economy*, , 23(4), pp. 267-276.

Manomano, T. & Tanga, P., 2018. Housing needs: The quality and quantity of housing provided by the government for the poor in the eastern Cape province in South Africa.. *Social Work*, 54(1), pp. 19-36.

Manomano, T., Tanga, T. & Perpetua, T., 2016. Housing problems and programs in South Africa: A literature review. *J Sociology Soc Anth*, 7(2), pp. 111-117.

Marais, L. & Ntema, J., 2013. The upgrading of an informal settlement in South Africa: Two decades onwards. *Habitat International*, , 39(), pp. 85-95.

Marais, L. et al., 2016. Reinforcing housing assents in the wrong location? The case of Botshabelo, South Africa. *Urban Forum*, Volume 27, pp. 347-362.

Michelman, F. I., 2003. The constitution, social rights, and liberal political justification.. *International Journal of Constitutional Law*, 1(1), pp. 13-34.

18 - 20 September, 2020

Mohlakoana, N., de Groot, J., Knox & A.J., 2017. Chapter 5: Post-apartheid spatial inequalities and the built environment: Drivers of energy vulnerability for the urban poor in South Africa.. In: N. Simcock, H. Thomson, S. Petrova & S. Bouzarovski, eds. *Energy Poverty and Vulnerability: A Global Perspective*. s.l.:Routledge, pp. 61-79.

Morange, M., 2002. Backyard shacks: The relative success of this housing option in Port Elizabeth. *Urban Forum*, 13(2), pp. 3-25.

Mudau, N. M. G. M. P. a. S. M., 2019. Towards a Smart Metropolitan Regional Development—Spatial and Economic Design Strategies: Johannesburg. In Smart Metropolitan Regional Development . In: *Smart Metropolitan Regional Development*. Singapore: Springer, pp. 919-976.

Murie, A., 2018. Shrinking the state in housing: challenges, transitions and ambiguities. *Cambridge Journal of Regions, Economy and Society*, Volume 11, pp. 485-501.

Murray, C. J., 2014. Promoting 'Inclusive Communities': A Modified Approach to Disparate Impact Under the Fair Housing Act. *Louisiana Law Review*, , 75(1), p. 11.

Musvoto, E. M. & Mooya, M. M., 2016. *Planning, housing policy and low-income housing development in South Africa*. Cape Town, 9th CIDB Cape Town, South Africa.

Neuman, W. L., 2014. *Basics of Social Research: Qualitative & Quantitative Approaches*. 3rd ed. Harlow: Pearson Education Limited.

Newton, C. & Schuermans, N., 2013. More than twenty years ater the repeal of the Group Areas Act: housing, spatial planning and urban development in post-apartheid South Africa. *Journal of Housing and the Built Environment*, Volume 28, pp. 579-587.

Norberg, J. & Cumming, G., 2008. *Complexity theory for a sustainable future*. New York: Columbia University Press.

Nworie, J., 2011. Using the Delphi Technique in Educational Technology Research. *TechTrends*, 55(5), pp. 24-30.

Pacione, M., 2009. *Urban Georgraphy: Aglobal perspective*. 3rd ed. New York: Routledge.

Patel, K., 2015. J. Bredenoord, P. van Lindert and P. Smets (2014) (eds): Affordable housing in the urban global south—seeking sustainable solutions. *Journal of Housing and The Built Environment*, , 30(4), pp. 711-713.

Pieterse, E. & Owens, K., 2018. Johannesburg: Confronting Spatial Inequality.. *World Resource Report*, December, pp. 1-28.

Ploeg, J., 1999. Identifying the best research design to fit the question. Part 2: qualitative designs. *Evidence-Based Nursing*, , 2(2), pp. 36-37.

Pouw, N. & Bruijne, A. d., 2015. Strategic Governance for Inclusive Development. *The European Journal of Development Research*, , 27(4), pp. 481-487.

Ren, X., 2018. Governing the Informal: Housing Policies Over Informal Settlements in China, India, and Brazil. *Housing Policy Debate*, , 28(1), pp. 79-93.

Republic of South Africa, 2014. *GCIS Documents - MTSF 2014-19: Republic of South Africa*. [Online]

18 - 20 September, 2020

Available at: https://www.gov.za/sites/default/files/gcis_document/201409/mtsf2014-2019.pdf

[Accessed 25 January 2020].

Rosenberger, I. K., 2009. *SUSTAINABLE LOW-COST HOUSING - A REVIEW OF THREE LOW-COST HOUSING DEVELOPMENTS IN GAUTENG PROVINCE*. [Online] Available at:

https://ujdigispace.uj.ac.za/bitstream/handle/10210/2029/rosenberger_dissertation.pdf?sequence=1

[Accessed 18 6 2019].

Sachs, I., 2004. *Inclusive Development strategy in an era of globalisation: International Labour Office working paper*, Geneva: International Law Organisation.

Sarma, R., 2012. RESEARCH: IN A METHODOLOGICAL FRAME. *Researchers World*, , 3(3), p. 100.

Schwartz, S. I. & Johnston, R. A., 1983. Inclusionary Housing Programs. *Journal of The American Planning Association*, , 49(1), pp. 3-21.

Seagle, E. & Iverson, M., 2002. Characteristics of the turfgrass industry in 2020: a Delphi study with implications for agricultural education programs. *Journal of Southern Agricultural Research*, 52(1), pp. 1-13.

Simon, D., 1989. Colonial cities, postcolonial Africa and the world economy: a reinterpretation.. *International Journal of Urban and Regional Research*, , 13(1), pp. 68-91.

Sliuzas, R., 2003. Opportunities for enhancing communication in settlement upgrading with geographic information technology - based support tools. *Habitat International*, , 27(4), pp. 613-628.

Thorne, S., 2000. Data analysis in qualitative research. *Evidence-Based Nursing*, , 3(3), pp. 68-70.

Tomlinson, M. 2., 2011. Managing the risk in housing delivery: Local government in South Africa.. *Habitat International*, , 35(3), pp. 419-425.

Tumusiime, E. & Matotay, E., 2014. Agriculture Sustainability, Inclusive Growth, and Development Assistance: Insights from Tanzania. *Journal of Sustainable Development*, , 7(4), p. 181.

Turner, J. F. C., 1972. Chapter 7: Housing as a verb. In: C. Macmillan, ed. *Freedom to build, dweller control of the housing process*. New York: s.n., pp. 148-173.

Turok, I. & Borel-Saladin, J., 2016. Backyard Shacks, informality and the urban housing crisis in South Africa: Stopgap or prototype solution. *Housing Studies*, 31(4), pp. 384-409.

Turok, I. & Scheba, A., 2019. Right to the city'and the New Urban Agenda: learning from the right to housing.. *Territory, Politics, Governance*,, 7(4), pp. 494-510.

Varela, C. et al., 2016. 2017. Advantages and Disadvantages of using the website SurveyMonkey in a real study: Psychopathological profile in people with normal-weight, overweight and obesity in a community samp. *The International Scientific Journal*, Volume 3, pp. 77-90.

18 - 20 September, 2020

Vita, G. E. D. & Oppido, S., 2016. Inclusive Cities for Intercultural Communities. European Experiences. *Procedia - Social and Behavioral Sciences*, , 223(), pp. 134-140.

Wilkison, P., 1998. Housing Policy in South Africa. *Habitat International*, 22(3), pp. 215-229.

World Bank, 2018. *Overcoming poverty and inequality in South Africa: An assessment of drivers, constraints and opportunities*, Pretoria: World Bank.

Ziblim, A. S. M. a. C. A., 2013. The dynamics of informal settlements upgrading in South Africa.. *Habitat International.*, Volume 37, pp. 316-334.