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A Management Concept for Driving Sustainability in Marginalised Communities in South Africa

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Abstract Cities are the frontline for addressing issues of global sustainability. This notion has been inducted into the development discourse of the Global North with varying degrees of success. However, urban environments in the Global South face unique challenges, and Western-derived perceptions of sustainability are inappropriate for these regions. This paper examines issues of sustainability within impoverished urban communities in South Africa. Survey interviews helped inform and examination of South Africa's urban morphology to determine the specific obstacles to sustainable urban development of marginalised communities in South Africa. In response, the study proposes the application of the principles founded in facilities management (FM) at a macro/urban scale. Urban facilities management (UFM) is a new alignment of FM that advocates a holistic view of an urban precinct to facilitate systemic solutions with a variety of urban role-players. A conceptual framework for a UFM aligned development process for marginalised communities of the Global South is developed based on issues identified through the interviews. This framework seeks to enable a comprehensive integration of social, environmental, economic, and institutional dimensions of sustainability into an urban development model. In doing so, it holds the promise of unlocking the opportunities for developing/emerging countries to pioneer global sustainability.

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Introduction

Over the next 30 years, almost all of the world's population growth is expected to be concentrated in urban areas of the developing/emerging world (Cohen 2006). The unprecedented rate of urbanisation in developing nations has created significant new challenges for national and local policy-makers (Gattoni 1996). Within this, a key deliberation for cities in the emerging world is to mediate the relationship between rapid and unregulated urbanisation, and sustainable development (Zetter and Watson 2016).

Concepts of sustainability, particularly where disadvantaged urban dwellers are concerned, are too narrowly defined (Mchunu 2016), and the need to confront widespread socio-economic crises associated with urban poverty is a more pressing priority than urban environmentalism (Punekar 2016). Building on this, it is suggested that an essential part of driving urban sustainability in the emerging world would be addressing the socio-economic concerns related to urban poverty.

Poverty is a growing and increasingly urban phenomenon (Pugh 2000a; Stephens 2000); this is particularly the case in the emerging world. This paper aims to evaluate issues associated with driving sustainability in the emerging world, specifically within impoverished communities in South Africa. There is a dearth of sustainability frameworks that acknowledge the specific challenges of promoting urban sustainability within the developing/emerging country context. In recent years, development agencies have become increasingly aware that attempts to develop areas in the Global South should not be guided by the Northern experience (Jenkins 2013). Parnell et al. (2009) stress the urgent need to formulate new strategies and ideas which are grounded in the urban realities of Africa. Moreover, understanding social and cultural aspirations is a key to understanding what is 'urban' in the African context (Jenkins 2013). This needs to be mediated and negotiated through meaningful dialogue and participation. Therefore, a viable approach for urban sustainability must be constructed around concepts and practices shaped by participatory processes and understanding between key urban stakeholders (Lezama-López 2016). However, this is difficult to foster in the emerging world where institutional capacity of government agencies is poor, particularly at the local level. Institutional weaknesses of local authorities in the emerging world are major obstacles for development (McGill 1996; Tannerfeldt and Ljung 2006).

Building local capacity and enabling communities to determine their own needs and development aspirations are key elements of the concept of sustainability (Zetter and Watson 2016). Despite this, modern rational planning methods and global capital favour hierarchical and centralised decision-making processes. This does not augur well for sustainability as many people are excluded from decision-making processes (Mchunu 2016). This is certainly the case in South Africa where limitations in political, institutional, and administrative capacity mean that participation with broader society is often neglected (Jenkins and Smith 2001). Active engagement with local communities is essential for innovation towards sustainability and multi-level governance (Dale et al. 2018). These and other failings in urban governance ultimately result in the urban poor of the Global South living in increasingly hazardous and unsustainable urban environments.

The above highlights that capacity limitations are severely limiting the progress towards sustainability, particularly in marginalised communities[1] in South Africa. There is a need for frameworks that accommodate the uniqueness and complexities of these settings in a way that focuses on mobilising community resources and social capital. To this end, innovative new ways to promote urban sustainability within the emerging world need to be developed. Such frameworks must draw on the experiences of local stakeholders to generate participatory and integrated initiatives to drive sustainability and alleviate urban poverty. Ultimately, such initiatives should be grounded in good governance and characterised by decentralisation, responsiveness and flexibility (Tanner et al. 2008). Furthermore, a clear underlying principle behind such approaches needs to be focused around the premise that disciplines cannot exist independently, especially when driving urban sustainability. The systemic nature of the issues associated with sustainability means that disciplines must unite and collaborate in the pursuit of equitable, just and environmentally conscious development (Stephens 2000).

Based on the preceding argument, what is proposed is the application of the principles of a management function called facilities management (FM) at an urban scale. FM is a management technique that integrates built environment, people, and business objectives into a holistic management function. When expanded to an urban scale, FM principles can integrate city infrastructure and services, urban governance, urban planning, and private sector into strategically positioned partnerships to promote urban sustainability (Michell 2013). As such, the purposes of this paper is to explore a management concept, grounded in the principles of FM, and to promote sustainability in marginalised communities within a developing country context, namely South Africa. Such a management platform will develop collaborative networks across a particular community in order to steward practical actions on the ground. This proposition is supplemented by a series of survey interviews conducted with key stakeholders involved in sustainable urban development in marginalised communities in South Africa. The interviews provided an understanding of the challenges faced by marginalised communities in South Africa and thus helped define appropriate solutions to these challenges. Moreover, participant responses serve to support the articulation of the application of UFM principles to develop a conceptual framework for urban sustainability in marginalised communities in South Africa.

Methodology

This paper seeks to provide mechanisms for understanding the complexities of urban development in marginalised communities to develop better models of propagating sustainability within this context. In order to achieve this, it is necessary to gain a deeper understanding of the issues and challenges that exist within marginalised communities in Cape Town, South Africa. As such, interviews were conducted in order to acquire detailed insights into the challenges and perspectives of key urban

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[1] For the purposes of this paper, the term marginalised communities refers to low-income areas on the periphery of urban society, both figuratively and physically. They are typified by poor access to public services and infrastructure, and high levels of unemployment and informality.

stakeholders involved in community development projects in marginalised communities. Below is a breakdown of the interview participants:

> *P1*: Is one of the principal urban planners for the City of Cape Town government (CoCT). This participant is actively involved in community development in Cape Town and is a key driver for sustainability within local government.
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> *P2*: Is a leading academic at the University of Cape Town. This participant is a deputy director of the African Centre for Cities; a department that aims to facilitate critical urban research and policy discourses for the promotion of vibrant, democratic and sustainable urban development in Africa, from an African perspective.
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> *P3*: Is the local economic development manager at an NGO called Violence Protection through Urban Upgrading (VPUU). VPUU apply an urban management methodology to provide development strategies to improve the socio-economic conditions of marginalised communities in Cape Town. They focus on engaging with residents and building their capacities. The organisation also acts as an intermediary and collaborates with local government and other NGOs to improve service delivery in marginalised communities.
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> *P4*: Is a community leader in Monwabisi Park, a community in Khayelitsha (Cape Town's largest and fastest growing informal township). Through the help of VPUU, the participant is improving the socio-economic conditions of the community through the installation of basic services and infrastructure.

The interviews were semi-structured and some questions were altered to suit the specific role of the participant. Participants were questioned on the specifics of the challenges they face when promoting sustainability in these communities, and how their strategies can be supported and improved. Further questions were intended to gain an insight into the worldview and perceptions of the various stakeholders that exist at the urban level.

Analysis of findings from the interview data defines a series of culturally feasible and systemically viable actions to improve sustainable development in under-serviced communities in South Africa. Through these actions, and the concepts discussed in the first half of this paper, a conceptual framework for UFM within the context of a marginalised community in South Africa is conceived.

Issues Associated with Urban Sustainability in the Emerging World

There is a general consensus amongst sustainability thinkers and practitioners that cities have the potential to provide solutions to global issues of sustainability (Rees and Wackernagel 2008; Rosenzweig et al. 2010; Metzger and Olsson 2013). This is also true for cities of the emerging world where: "traditional authority, religious identity or informality are as central to legitimate urban narratives as the vacillations in modern urban capitalist public policy" (Oldfield and Parnell 2014, p. 2). It follows that cities in the Global South have a distinct set of challenges that are largely not experienced by cities in the Global North. This has a significant impact on how sustainability is perceived, and the subsequent responses initiated to address sustainability.

The fundamental concern regarding urban sustainability in the emerging world is rapid and unplanned urbanisation. The growth of the urban population far outstrips the capacity for employment and investment into the formal job sector, and the capacity for institutions to provide necessary urban infrastructure (Pugh 2000a; Jenkins 2013). Consequently, urbanisation in the Global South is typified by a rapid differential increase in the urban poor, particularly in Africa (Stephens 2000; Jenkins 2013). What's more is that government mechanisms are unable to respond in time, causing an ever increasing deficit in necessary urban infrastructure, services, and housing (Pugh 2000a; Jenkins 2013). The result is that the management of urban areas is failing in the face of rapid urbanisation in the emerging world (Gattoni 1996). Additionally, governments of the Global South do not have the fiscal base to fund the infrastructure required to support the growing population. The consequences for the urban poor are severe, and living conditions for millions forced to live in informal settlements are deplorable.

Another issue that is intricately linked to the negativities of urbanisation is inequality. Emerging countries are amongst the most unequal in the world (Ravallion 2014). The sharp increase in inequality has corresponded with the acceleration of the process of globalisation. Globalisation processes and neo-liberal policies have facilitated the concentration of power within a minute urban minority who control the share of wealth, information, and health for all. The irony is that cities are simultaneously the locus of power and home to the majority of the powerless in the world (Stephens 2000), and the effects of global inequality are disproportionately shared by the urban poor in the emerging world. What's more is that inequality is not only associated with income. The urban poor often cannot use information or affect decisions that can influence their living conditions. This often leaves marginalised communities feeling further disenfranchised which underlie the unsustainable and poverty-laden context (Harpham and Allison 2000; Stephens 2000). Thus, poverty of power and information is also a significant issue when it comes to development. As a result, many of the urban poor in the emerging world do not feel empowered enough to be heard through formal channels of dialogue and many turn to rioting and vandalism to express their dissatisfaction.

The lack of empowerment experienced by the poor in the emerging world is entrenched by an absence of appropriate governance structures (McGill 1996; Maldonaldo-Fuse 2016). Ultimately, this lack of governance is due to limitations relating to institutional capacity and political will of governments to engage with citizens (Roberts and Diederichs 2002). Without a strong institutional base to manage modern cities, urbanisation cannot be sustainable (Gattoni 1996). What is needed in the emerging world are local institutions, both state and non-state, that have greater capacity, flexibility, and vision to manage broader responsibilities (Gattoni 1996).

Urban Development in South Africa

South Africa's history is characterised by racial tension and oppression. This is recently remembered by the apartheid regime which succeeded in institutionalising racial segregation by physically relocating non-white South Africans to the outskirts of urban areas. In these areas, residents were deprived of adequate access to public services. Despite the promise that came with the disassembly of apartheid in 1994, the 23 years

that followed have provided little evidence of a reformed and equitable South Africa. The lingering legacy of apartheid and neo-liberal economic policy driven by globalisation has given rise to an increase in inequality in the years following the introduction of democracy (Durrheim et al. 2011).

Like much of the emerging world, urbanisation in South Africa occurs as massive unplanned peri-urban growth (Goebel 2007). A result is that the urban landscape of South Africa is typified by sprawling suburbia, mono-functional zoning, low-density housing, and the social inequalities associated with cities fragmented along racial lines (Mchunu 2016). Additionally, the process of urban growth in South Africa has made a considerable contribution to the rapidly growing pool of urban poor (Dewar 2000). This growing portion of the urban population is driven into informal settlements on the urban periphery with little to no access to basic infrastructure and services, employment opportunities, and social welfare. Here, the most pressing social challenges are associated with high levels of unemployment and poverty, the devastating HIV/AIDS epidemic, and an increase in crime and concern for personal safety (Mchunu 2016).

In Cape Town, the population grew by 46% between 1996 and 2011 (City of Cape Town 2013). A consequence of this is the considerable backlog of low-income housing which, in turn, means many poor South Africans are forced to find shelter in the form of make-shift shacks made from whatever materials they can find. For these citizens, their presence in the urban environment is characterised by existence and not meaning (Goven et al. 2012). To combat these harsh realities, low-income housing delivery has become one of the key programmes of South Africa's government since 1994 (Irurah and Boshoff 2003). However, resource limitations and the current mechanisms of housing delivery are such that the deficit of low-income housing is growing (Goven et al. 2012). For example, the government housing delivery in Cape Town provides 10,000 units annually, yet the combined housing backlog for the city is around 400,000 (UN-Habitat 2014). This vast and growing backlog forces housing delivery programmes to prioritise speed and affordability over socio-economic functionality, and the focus is centred around housing delivery and not sustainable human settlements. Housing solutions do not go beyond the provision of the physical building and are devoid of the infrastructural requirements that enable the creation of a sustainable community. The result is the propagation of diffuse, mono-functional mass housing projects (Dewar 2000). Governments need to ensure that new neighbourhoods serve as attractors for investment and trade, recreation, and the promotion of socio-cultural tradition (Goven et al. 2012).

Like, the rest of the emerging world, institutional under-development is a significant concern in South Africa. Even though sustainability and public participation is encapsulated into South African policy, both nationally and locally through Local Agenda 21, Integrated Development Plans, and the Urban Development Framework, outcomes often betray these principles (Mchunu 2016), and local governments struggle to formulate and coordinate successful partnerships with private and public sectors. Whilst South Africa has established policies that promote engagement, it has not created the institutional mechanisms to bring negotiations to wide social groupings. More dynamic, efficient, and equitable development in South Africa is severely hampered by state (in)capacity in terms of administrative, political, technical, economic, and institutional capacity (Jenkins and Smith 2001). The irony is that the role of state institutions in mediating the development and management of sustainable urban

environments is expanding at a time when their capacity to act is undercut by forces beyond their control (Mchunu 2016). Despite this, Dodman and Satterthwaite (2008) demand more competency and accountability by the city and municipal governments. Whilst the logic behind this is sound, the practicalities on expanding the responsibilities and accountability of an already buckling municipal system are not. Reduced state capacity is hindering more innovative responses to urban challenges as the state has assumed too much responsibility in relation to its various capacities (Jenkins and Smith 2001). Relying on a state-led solution to issues exacerbated by the state is unlikely to produce a more sustainable outcome for South Africa's urban poor. Therefore, this paper argues that systems of support should be strengthened so that the government can fulfil legislative and decision-making functions, whilst other urban institutions make up the deficit in resources, skills, and institutional capacity. This is already seen to some extent in South Africa by non-government organisations (NGOs) and community-based organisations (CBOs).

The shortfall created by various capacity constraints of government agencies in South Africa has given rise to the development of the NGO sector. The government agencies have become reliant on these non-state actors and actively forge partnerships with NGOs to drive sustainability in areas where there is limited or no government funding available for such pursuits. Two key roles for NGOs and CBOs in South Africa can be identified: firstly, to provide technical, resource, and institutional capacity building to governments and communities; secondly, to facilitate the interactions between the local government and communities (Harpham and Allison 2000; Dodman and Satterthwaite 2008). A benefit of NGOs and CBOs in traditionally state administered endeavours is that they can force government institutions to decentralise control and allow for the incubation of locally developed responses to urban issues. Despite this, civic associations and other CBOs are often ignored throughout the development process and little attempts to promote people-driven development are made (Bond and Tait 1997). This is particularly evident in informal settlements where a lack of governance has been identified as a key area of improvement for local governments (Richards et al. 2007). Nevertheless, NGOs have proven their efficacy at acting as an intermediary between state and civic organisations. Dodman and Satterthwaite (2008) confirm that NGOs and CBOs can effectively act as conduits for the transfer of information between residents and urban authorities. To this end, NGOs and CBOs are able to help marginalised communities take ownership of their experience in the urban environment and unleash their potential as active agents of development rather than passive beneficiaries (Tannerfeldt and Ljung 2006).

The above provides a glimpse onto the backdrop on which urban development in South Africa takes place. The majority of South Africa's urban poor prioritise issues such as: shelter, sanitation, and personal safety; over environmental concerns (Roberts and Diederichs 2002). Attempts to drive urban sustainability in poor urban areas in South Africa need to be centred around these concerns. This is not congruent with the Global North's interpretation of urban sustainability which places primacy on environmental factors and building performance. This is demonstrated through the application of community-scale rating tools such as LEED-ND, BREEAM, and CASBEE, which have become prevalent in urban planning strategies in the Global North. These tools attempt to quantify and measure efforts to promote sustainability by essentially measuring what can be measured. The result is that socio-economic aspects, and other

factors that are hard to quantify, are largely ignored (Boyle and Michell 2017). To this end, if environmental concerns are to receive greater attention in the Global South, they need to be embedded in addressing the significant socio-economic and political concerns endemic in these regions. What is worth stressing is the acknowledgement that adjustments need to be made on a structural level and not on a technological one. Efforts need to stress the importance of adaptive change over prescribing the specific styles and technologies (Zetter and Watson 2016). Thus, the process of development, particularly in the Global South, needs to be centred around collaborative engagement and reconciling stakeholder objectives and resources into unified and cohesive action. An over-reliance on technological innovation undermines the fundamental need for better governance structures at the urban level.

Despite the massive challenges facing urban sustainability in South Africa, there is a great deal of opportunity that exists within its cities. In many respects, these communities have the potential to supersede the efforts of the Global North in developing vibrant, just, sustainable, and culturally diverse communities. Achieving this requires better mechanisms of collaboration and participation in marginalised communities.

A Call for More Innovative and Appropriate Responses to Urban Sustainability in the Emerging World

The challenge of creating sustainable cities has been framed in essentially technical terms where the reduction or elimination of objectively defined problems is thought to achieve sustainability (Brand 2000). Reductionist approaches, whilst well-suited for scientific endeavour, are not appropriate for the promotion of sustainable urban development as they cannot account for the innate complexities of urban environments. Furthermore, reductionist or technocratic approaches for sustainability leave relations of dominance in place. The dominance of technological rationality over operational process has resulted in the negation of addressing real development needs (McGill 1996). Intricately linked to these ideologies are Western planning paradigms that entrench concepts of master planning where top-down models of urban intervention rely on Western-led knowledge rather than local contexts of intervention (Broto 2014). Consequently, they emphasise environmental aspects whilst largely ignoring social, economic, and institutional aspects of sustainability. Fundamentally, this makes them inappropriate for application within the Global South. What is missing is an emphasis on sound governance, supported by strong institutions. In this context, the word governance is not simply the domain of formal government but rather it encompasses the processes and interactions aimed at solving a collective problem. Thus, the focus is less on the state and its institutions but more on social practices and activities (Bevir 2012).

Whilst many urban planners and designers have an understanding of social diversity and cultural values, they tend to subsume these under a dominant set of normative ideals (Jenkins 2013; Zetter and Watson 2016). Ideological preconceptions are much less practical than the exploration of concepts and ideas related to operative social realities (Pugh 2000b). This view understands development as a process of exploration rather than one of imposition (McGill 1996). In essence, dominant rationality propagates a view of sustainability that ignores a vital premise of sustainable development: to

address the structures of human interaction and activity that threaten mankind's ability to sustain an existence on Earth. These are difficult to define, and appropriate tools to assess and validate the importance of a community's values are lacking (Zetter and Watson 2016). In reality, there are no universal criteria that can assess and analyse these factors. They need to be locally derived and administered. This supports the notion of awarding primacy to local communities and their capacity to define their socio-spatial needs in sustainable ways (Zetter and Watson 2016).

Process-Oriented Approach to Urban Sustainability

Most urban development strategies emphasise planning, appraisal, and investment rather than implementation and operations (McGill 1996). There is a need to shift away from technocratic ideologies and closely examine the strategies, motivations, and capacities of urban stakeholders (Shriberg 2002). To this end, the process of participatory learning with a number of stakeholders is an essential strategy for sustainable development (Bagheri and Hjorth 2007). Mchunu's (2016) sentiments confirm this when he describes how sustainability should support the promotion of participatory democratic decision-making processes both for procedural and substantive reasons. Ultimately, this means that sustainable urban development cannot be a pre-defined goal or end-state, but an open-ended process of reconciling competing values and priorities (Zetter and Watson 2016). Robinson and Cole (2015) advocate the development of goals and outcomes through a process of inclusive negotiation and governance; governance that allows for a range of actors, flexible partnerships, and creative co-production of knowledge to enable transitions to more sustainable development trajectories (Dale et al. 2018). The logic and benefits of this are clear; however, many institutions of the emerging world are ill-equipped to facilitate such processes. Thus, redefining the urban sustainability agenda towards acknowledging the institutional arrangements associated with engaging with, and learning from, the various actors at the urban level is crucial for the development of sustainability in the emerging world.

Whilst it is commonly understood that a top-down approach to development is ineffective, a purely bottom-up approach can be equally as ineffective as plans without the necessary legislative and technical considerations are likely to fail. A synthesis of the two paradigms is likely to produce more favourable outcomes for urban stakeholders. Such a synthesis would promote decentralised decision-making authority to urban stakeholders most appropriately placed to make decisions, whilst being organised through formal structures with the necessary technical resources. It is argued that this approach could support urban governance that creates a continuous process through which conflicting interests can be consolidated into cooperative action (UN-Habitat 2014). The above highlights a critical link between urban governance and institutional capacity. Institutional mechanisms provide the channel through which urban issues are articulated. Furthermore, building institutional capacity asserts the supremacy of values over techniques and promotes development based on democratic ideals (McGill 1996). Dodman and Satterthwaite (2008) discuss the importance of building the capacity of urban institutions for ensuring innovative adaption to issues relating to sustainability. These are some of the key ideologies underpinning process-oriented development strategies. Despite their clear benefits, they are seldom incorporated into development action.

Urban Facilities Management and Its Potential for Driving Urban Sustainability in the Emerging World

FM is concerned with the practice of maximising the value of a building or facility. The function of FM is to integrate various strategies and services relating to a building to aid the achievement of a business' core goals and objectives (Nazali et al. 2009). This is carried out by aligning various organisational objectives into the strategic management of an organisation's facility. Essentially, FM is the coordination of space, place, and people into an integrated management function that serves the corporate interests of an organisation (Michell 2013). An example of this is exemplified by Google's strategy for the workplace where the facility plays a central role in managing human resources and intellectual capital to support a core business function of developing innovative web-based products.

Urban FM is an alignment of these principles which expands the scope from a singular building to an urban scale. Using these principles at this scale can help city managers look holistically at urban challenges so that services and functions can be strategically arranged to fulfil key urban objectives. Landman (2000) posits that urban sustainability must advocate an integrated and holistic approach towards city-making, considering not only the parts, but emphasising their relationships. By doing so, a municipality can incorporate a community and its facilities into a strategic plan for the city as a whole. By acknowledging the systemic relations inherent to cities, UFM can strengthen the capacity to manage urban development programmes by linking various sectors and organisations that can catalyse circular economies, resource efficiency, and waste reduction. The resultant formation of networks and strategic partnering enables the improved delivery of services (Weerasinghe and Sandanayake 2015). Furthermore, it provides an integrated management service for the operation and sustainability of the urban environment (Lee et al. 2013). To this end, services like energy provision, waste management, welfare provision, and others can be integrated with governance, urban planning, and economic development to create a flexible and effective platform to drive urban sustainability (Michell 2013).

An approach mirroring UFM principles is demonstrated by the SymbioCity Approach (SCA). The SCA was developed in Sweden by SKL International, a company specialising in supporting the development of the local government systems in emerging countries (SymbioCity 2017). Like UFM, SCA looks at systemic synergies across the urban system in an attempt to drive sustainability. This is pictured below in Fig. 1.

It is clear from the figure that these management approaches hinge on effective collaboration. Indeed urban management is a requirement for agency coordination and strategic purposes in patterning urban form and development (McGill 1998). Furthermore, collaborative planning at the community scale can yield pioneering initiatives for social innovation which underpin sustainable urban localities (Maldonaldo-Fuse 2016). Essentially, the creation of sustainable urban environments requires the collaborative efforts of many stakeholders with different roles and values, sharing meaningful information and learning through innovative response to feedback (Innes and Booher 2010). Whilst the above is well documented in urban development discourse, what is missing are conversations that pertain to managing the interactions required to effectively execute collaborative strategies. The inherent principles of UFM focus on providing a flexible platform in which urban actors can come together in new and
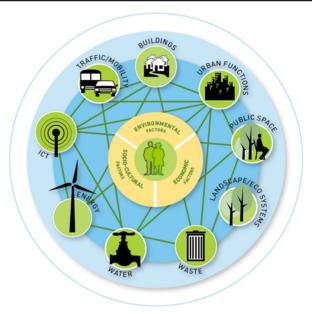
Fig. 1 The SymbioCity Approach (source: Ranhagen and Groth 2012)

innovative settings of broadened engagement (Roberts 2004). This allows urban stakeholders to plan, deliver, and maintain an enabling environment (Alexander and Brown 2006) that unlocks the city's most valuable resource: the knowledge, ingenuity, and organisational capacity of its citizens (Devuyst 2001). To this end, it is conceivable that UFM can form a link between the concept of sustainable urban development and its operative imperatives.

The paper argues that UFM can address many issues currently faced by cities of the emerging world, and in particular, South Africa. Firstly, limited resources can be saved and costs reduced by a central, holistically oriented management platform. Lee et al. (2013) contend that integrated management which considers the connectivity amongst diverse facilities can unify the management process and reduce the cost of developing and operating urban areas. Additionally, UFM holds the promise of providing the institutional platform to execute integrated development across sectors and scales. Urban development literature highlights a distinct absence of linkages between regional levels of planning and action at the local level in the emerging world (Maldonaldo-Fuse 2016). Thus, UFM could narrow the institutional gap between local communities and urban development in the emerging world. An approach supported by UFM could also better integrate the role of NGOs in South Africa. This will further support additional capacity and facilitate interactions between state and non-state actors that represent key local values and technologies. Lastly, by combining the multiple stakeholders, each with a commitment and vested interest in a community, urban stakeholders will be held more accountable by their actions which is argued will help build trust in urban development processes.

Despite the significant benefits associated with the application of the above principles, they are ultimately dependent on the functionality of urban institutions that can support their implementation. The reality of urban development in South Africa is such

that institutional capacity of local authorities may not be present to uphold UFM principles, and such capacity should be sought outside government structures. In sum, UFM does not hold the answers to all issues related to urbanism, but its significant potential in the emerging world lies in its ability to coordinate fragmented city functions into a unified protocol for community-driven action.

Findings

This section highlights the developing themes that emerged from interviews with key stakeholders associated with the development of marginalised communities in South Africa. Many of these themes are interlinked and it is difficult to illustrate the complexity of the urban development context in writing. For ease and clarity, findings have been categorised into four groups, namely the socio-economic and political context of Cape Town, the role of government, the role of NGOs, and the benefits of holistic and collaborative development approaches.

Socio-economic and Political Context of Cape Town

Social issues and economic instability have long-reaching implications to a variety of aspects affecting sustainable community development in South Africa. The issue most prevalent amongst participants when questioned about driving urban sustainability in an emerging country context was that it is difficult to get people on board with sustainable initiatives when they are living in adverse poverty. Existence is characterised by immediate survival rather than sustaining an environment for future generations (P2). For many poor South Africans, conditions have not changed, or have even worsened, since the abolition of apartheid, and inequality is still a significant issue. As mentioned in the literature, inequality is also related to the distribution of information and ability to affect decisions, and not just income. A consequence of such severe inequality is that there appears to be little legitimacy extended to democratic institutions (P2). This makes it difficult to get sustainable development off the ground in impoverished communities as there is mistrust and malcontent regarding the government's lack of service delivery and community engagement. This creates difficulties when trying to get community buy-in for sustainable initiatives in impoverished areas.

This is exacerbated by the sheer rate of urbanisation that is currently occurring in the Western Cape. Marginalised communities are amongst the worst affected by urbanisation, both in terms of the phenomenon and its consequences. This places significant pressure on government mechanisms to respond to the needs of a rapidly growing population. The result of overburdened government institutions is that gaps in urban governance develop. This creates an environment where local government members are able to use their position for personal gain. For example, participants described how local councillors commonly ask for kickbacks to allow NGOs to work in marginalised communities. The result is a deepening of the climate of mistrust in state institutions. This ultimately creates a barrier for collaboration and engagement not only between citizens and government but also corporate entities and NGOs. As a result, a lot of initiatives do not get off the ground and communities are left feeling even more disenfranchised with little hope of their situation improving (P3).

The Role of Government

The leadership role that local government plays in South Africa in driving sustainability is limited. Nevertheless, there is evidence of governments in South Africa, both local and nationally, meaningfully engaging with concepts relating to urban sustainability. Furthermore, it was highlighted by P1 that local government does make attempts to look at urban development more holistically. However, there is little cohesion between the various governmental departments to provide an adequate leadership role when it comes to urban sustainability. This fragmentation makes it very difficult for local institutions to respond to dynamic urban issues, particularly when managing relationships with multi-sectoral stakeholders and multiple government departments.

Another limiting factor is that the focus for government since democracy was established in 1994 has been to address the inequalities entrenched by apartheid. Consequently, resources are prioritised to address concerns such as inadequate housing and sanitation. In a country where widespread poverty means that resources available to governments are limited, very little funding goes beyond merely providing shelter and sanitation in marginalised communities, and any scale development that requires additional work and costs become too challenging (P2).

In order for the government to promote a more comprehensive and holistic strategy for sustainability in these communities, they need to leverage the resources of NGOs and other civic organisations. This does take place and is demonstrated through organisations such as VPUU and the CIDs; however, this kind of working model requires a large degree of institutional capacity from local governments. Institutional, technical, and administrative limitations are defining characteristics of local governments in impoverished communities in South Africa (P3). As a result, it appears that there is unwillingness on the behalf of local governments to meaningfully engage with NGOs and CBOs. For people living in marginalised communities, city-led development is characterised by imposition rather than agency as many developments take place without residents even being aware of them (P4). This further feeds into the level of mistrust for government development initiatives. Despite this, there is a willingness by the city to engage meaningfully with marginalised communities. P1's planning department spoke of the success of city-led initiatives in Du Noon, an impoverished community on the outskirts of Cape Town where the first phase of the project was "getting the community involved, finding out what the real issues are" (P1). Despite this, the lack of government resources means that only a couple of pilot projects are able to accomplish any meaningful level of engagement with marginalised communities (P3).

The Role of NGOs

NGOs play a significant role in sustainable community development in South Africa, particularly in under-serviced communities. What NGOs have managed to effectively do in South Africa is act as a conduit for the articulation of civic needs and government strategies between government and society. This notion is supported by P1 who highlights that local government have failed to create effective information flows between communities, government organisations, and other community stakeholders. Hence, in many cases, NGOs fulfil an intermediary function between various

stakeholders where government cannot in order to build trust and consensus (P3). This, coupled with the fact that NGOs are able to channel resources into areas where governments are unable, means that they can be a very valuable tool for governments in promoting urban sustainability in South Africa. This is acknowledged by the local government (P1). As a result, the typical model of development of NGO's in SA is that they build enough recognition and support from the community and are then incorporated into local government in some form of partnership. This is seen with CIDs, VPUU, and the Cape Town partnership.

Another key aspect of NGOs in South Africa is that they recognise the significance of creating meaningful dialogue with communities in order to promote a development agenda relevant to that community (P4). It is argued that this recognition is garnered because NGOs tend to be smaller organisations operating in specific locations where there is an intimate understanding of the local context and its challenges. Local governments, which have to conform to a regional and national structure across various different departments, are less able to identify specific needs of a community and respond in a unified and comprehensive way.

The Benefits of a Holistic and Collaborative Approach to Driving Urban Sustainability

Throughout the interviews, it became clear that participants valued more holistic approaches to urban sustainability. This refers to applying sustainability strategies in line with a broader vision of the precinct or community. This entails development processes that cross multiple scales and disciplines. It was also highlighted that managing these stakeholders is challenging, and coordinating a variety of skills and stakeholders into a unified and deliverable strategy is difficult. It was suggested that a clear vision for a community, that can guide leadership at various levels, could help foster effective collaboration (P3). Furthermore, intermediaries can help facilitate the articulation of various stakeholder's views and skills into an executable plan. An example of such an intermediary is the CIDs in Cape Town (P3). They apply an area-based approach to increasing the property values of communities by improving the management of an urban precinct. They also help to facilitate urban governance at various levels.

A central argument of this paper is that intermediary functions, which are to some extent demonstrated by VPUU and CIDs, can fulfil a broader sustainability agenda that can assist in the development of marginalised communities in South Africa. This will be discussed in more details below.

Discussion

Based on the research findings, the following culturally feasible actions were identified to steer the trajectory of urban development in marginalised South African communities towards sustainability:

- Develop a platform that harnesses meaningful collaboration, fosters trust, and creates accountability.

- Develop a flexible structure that underpins holistic considerations for community development.
- Develop a structure that supports and expands the efficacy of local government but is independent of government.
- Develop better mechanisms to incorporate community stakeholders into development processes.

Responding to these actions requires the development of a central structure that can facilitate interactions at various scales. Such a structure can build on the work of existing NGOs and CBOs in fostering trust and establishing meaningful dialogue between state and society. This structure must adopt a holistic view of a community to expand the number of organisations (and resources) involved in community development processes. The outcome is the cultivation of strategic partnerships across scales and sectors which are better able to incorporate a representative account of community's needs. Additionally, the structure or platform will be more effective if it is not bound by the bureaucratic and political limitations of government institutions and their agendas.

The findings highlighted a mismatch between the structure of government administering sustainable urban development initiatives, and the local actors who are working in communities trying to affect change. Built into this is the need for effective and efficient feedback mechanisms that can enable continual adaptive learning amongst urban stakeholders. Based on this, and the actions defined in this section, it is argued that there needs to be mechanisms in place to bridge the gap between administrative structures and local actors. As established, NGOs in South Africa fulfil an intermediary function and their successes have been exemplified through organisations such as VPUU. However, the work of NGOs is conveyed through specific developmental or other social objectives. It is argued that, in response to the defined actions, one could build on the success of the NGO model and create a platform that aims purely to act as an intermediary. The only agenda of such an intermediary function would be to facilitate interactions and partnerships between actors (both state and non-state) to drive a sustainability agenda specific to the needs of a particular community. Having a flexible and locally relevant intermediary offers real solutions to circumvent the slow-moving and ineffectual bureaucratic systems in place in South Africa.

The above discussion forms the basis of the development of a conceptual framework for an urban development agenda, guided by a UFM framework. This is demonstrated in Fig. 2 below.

The first step of this iterative process would be to facilitate a conversation between a community (including CBOs) and government institutions. In order to ensure this dialogue is meaningful, it is vital that these conversations involve multiple governmental departments and community stakeholders. This is the first crucial step in instilling a sense of agency and trust in the urban development process. The outcome of this conversation should be a clear and tangible vision for the community, based on the specific needs of that community.

From here, the plan is formulated based on all of the relevant stakeholders of that community and affected government structures. This is depicted in the central part of the diagram. The red boundary illustrates the institutional aspects of the urban development process—this refers to the arrangements of stakeholders, the rules in which
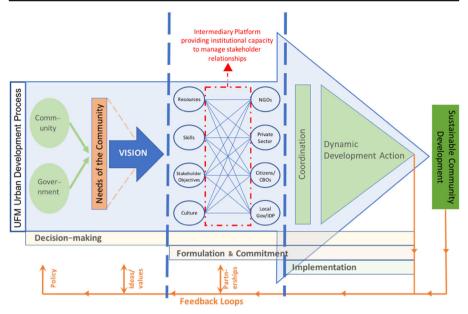
Fig. 2 A UFM-guided urban development process

govern their interaction, and how information and resources are shared. As the inter-
mediary structure acts independently of government, there is no one point of authority.
This helps mediate a balance between top-down and bottom-up approaches where all
stakeholder interests are heard and recognised, and a community's vision is provided
with the necessary guidance, support, and instruction. During these interactions, stake-
holders express a clear commitment to the vision of the community before development
strategies can be formulated. Primarily, it is here where FM principles of integrating
space, place, and people are deployed to develop a flexible platform based on the
functions of existing intermediaries and previously excluded urban stakeholders. An
example of this could be how UFM can provide the platform for a community farming
initiative to partner with city waste management services for composting, and an NGO
teaching unemployed people how to grow vegetables. The main premise of this concept
is that this platform will play an intermediary role which facilitates communication and
relationships between community stakeholders. This aims to reinforce trust and reiter-
ate that the community are part of the action that is developmental. Furthermore, having
more organisations involved in a given community holds stakeholders more account-
able. This is especially important for urban authorities in marginalised communities in
South Africa.

Through a series of workshops that form the basis of formulating implementation
strategies for the community, relevant stakeholders identify their interests, objectives,
concerns, resources, skills, and impact so that there is mutual understanding amongst the
stakeholders. From this, synergies, complications, and opportunities can be identified at
various scales. Accordingly, strategies and partnerships are established that form the
centrepiece of the community development action. Commitment to the action plan and
a clear understanding of roles and responsibilities will be articulated and enforced through
this management platform. Here, NGOs, CBOs, and other non-state actors offer resources

and services in conjunction with state agencies into a comprehensively integrated development action. Note in Fig. 2, the term dynamic development action is used instead of a 'masterplan' or 'blueprint' as the outcome of this process is not a static plan but one that evolves to accommodate the ever-changing landscape of the urban environment.

Overall, the process is categorised by three main phases (as shown below, the main arrow in Fig. 2). Decision-making initiates this process and, due to the flexible and iterative nature of the proposed UFM platform, continues throughout the entire process. The second phase, formulation and commitment, is where stakeholders come together to devise strategies. This phase continues to the end of the process too as the formulation of strategies will continuously evolve with the community. The implementation stage essentially puts into action the previous phases. The nature of this process is iterative and feedback loops exist at every stage of the development action (this is signified by the orange arrows at the bottom on the diagram). This means that the plans, partnerships, guiding policy, stakeholders, and visions associated with the sustainability of a particular community can change to respond to the dynamic concepts of sustainability and community development.

Utilising the principles set out in this paper, it becomes clear that a UFM-guided process for urban development that addresses the required actions as identified through the research can offer viable options for urban (re)generation in marginalised communities in South Africa.

Concluding Comments

If there is one common truth regarding African cities, it is that they resist characterisation and simplification in the manner demanded by Western-based rationalities (Broto 2014). Sustainability frameworks developed in the Global North are inappropriate for use in the emerging world as they rely heavily on technically driven solutions. They also do not adequately consider socio-economic issues, like urban poverty and informality, that is rife in the emerging world. As a result, emerging countries are largely excluded from the urban sustainability debate. With 83% (5.9 billion) of the world's population living in the emerging world (Population Reference Bureau 2013), it is a vital task for global sustainability to devise better mechanisms to foster the implementation of sustainable urban development within these regions.

A crucial challenge for cities in the emerging world is establishing ways of promoting sustainability in the face of rapid urban change. This paper looked at urban development in marginalised communities in South Africa to evaluate ways in which urban sustainability frameworks can be developed in this context. Urban development strategies in South Africa face key challenges that relate to sprawl; substantial housing backlogs; poverty, spatial and economic inequality; segregation; informal settlement proliferation; and inadequate infrastructure and service provision (UN-Habitat 2014). Issues associated with responding to these concerns are related to capacity limitations of government which manifest themselves in service delivery deficits and a lack of participation. Pugh (2000b) asserts that abating urban poverty and environmental concerns depends on frameworks of governance and institutional design. This highlights a clear link between urban governance and institutional capacity; two ingredients that are lacking in urban development strategies in the emerging world.

Data collected from interviews helped inform key insights into urban sustainability in marginalised communities. The findings were used to define a set of culturally feasible and systemically viable actions to improve urban sustainability in marginalised communities. Appropriate responses to these actions hinged on creating a flexible development framework that fosters meaningful engagement and trust between state and non-state actors. Ultimately, this concept is strongly aligned with Gattoni's (1996) views that the key to sustainable urbanisation rests with organisations that are able to facilitate and motivate actions of a city's population. To this end, the conceptual framework proposed in this paper seeks to instil a collaborative paradigm where urban stakeholders are able to focus on actions aligned with their skills and interests whilst acting as part of a unified vision for community development action.

None of the concepts put forward in this paper are new. Certainly some are well-established and receive consensus amongst academics, practitioners, and policy-makers. For the most part, what is missing are real attempts to put these concepts into action in a global political environment that actively promotes the status quo. Instead of further conceptualisation, real action needs to be taken; action that validates, mobilises, and empowers. UFM has the potential to address institutional and other capacity limitations to provide a blueprint for appropriate and sustainable action in marginalised communities of the Global South.

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