Planning innovation for better urban communities in sub-Saharan Africa: The education challenge and potential responses

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Abstract

Cities in the sub-Saharan Africa region present challenges to the urban and regional planning profession, city managers, leaders, educationists and dwellers (Rakodi, 1997, 2001; McGill, 1988; Diaw, Nnkya & Watson, 2002). This is at a time when Africa is urbanising faster than any other region (UN-Habitat, 2008), calling for a rethinking of planning to respond to existing needs. Although the current urbanisation level is at 39.1% (UN-Habitat, 2008), it is projected to increase to over 50% by 2025. This outstanding demographic shift on the African continent and particularly in the sub-Saharan region presents current and future urban challenges. In addition to the future challenges, the unresolved question as to whether existing and much utilised models of urban development offer solutions to the planning needs in the region should be investigated, although it is important to recognise the failures of locally designed initiatives. The models have been critiqued widely (Brockerhoff, 2000; Arimah & Adeagbo, 2000) and this is not the focus of this article. However, it is necessary to recognise that the planning profession has relied on these models through the planning education system. Notwithstanding the challenges of resources, leadership, and political dispensations, planning education systems have played a role in influencing and shaping urban development in the region. Although planning models have been critiqued, planning education systems have received less attention in respect of their role in influencing the development pathways of cities in sub-Saharan Africa. Likewise, planning education systems have not adequately been viewed as points of entry in planning innovation for new urban Africa. Drawing from experiences of cities in the region, two urban development processes can be discerned: first, the explosion of some cities particularly former colonial administrative or economic hubs and, second, the fast growth of secondary cities. There are also many small rural trading centres and 'hamlets' with densities comparable to neighbourhoods of the large-cities. The latter, conceptualised in this article as urbanisation by implosion, is not properly accounted for in the national statistical reports. Several drivers are responsible for this urbanisation, including population dynamics, legislative designation, and increasing densities in rural trading centres. The challenges of social service provision, sustainable economic development, housing delivery, urban governance, spatial development guidance and urban environmental management are yet to be thoroughly analysed and rethought in planning education in the context of addressing the existing needs. This article examines the planning education system and how it has influenced the nature and shape of cities in sub-Saharan Africa, the outcome of which may not have substantively responded to existing needs. This article will also identify possible points of innovation in planning education that may create a difference in addressing the existing needs in sub-Saharan Africa.

BEPLANNINGSINNOVERING VIR BETER STEDELIKE GEMEENSKAPPE IN SUB-SAHARA AFRIKA: DIE ONDERRIGUITDAGING EN POTENSIËLE REAKSIES

Stede in die sub-Sahara Afrika-streek bied uitdagings aan die stads- en streek-beplanningsprofessie, stadsbestuurders, leiers, opvoeders en bewoners (Radkodi, 1997; Rakodi, 2001; McGill, 1988; Diaw et al., 2002). Hierdie is op 'n tyd wanneer Afrika vinniger verstedelik as enige ander streek (UN-Habitat, 2008) en 'n beroep word gedoen op die heroorweging van beplanning om te reageer op bestaande behoeftes. Alhoewel die bestaande stedelike vlakke 39.1% (UN-Habitat, 2008) is, word 'n groei van oor die 50% teen 2025 geprojekteer. Hierdie uitstaande demografiese verskuiwing op die Afrika-kontinent en spesifiek die sub-Sahara-streek bied huidige en toekomstige stedelike uitdagings. Tesame met die toekomstige uitdagings, moet die onopgeloste vraag of bestaande en baie gebruikte maniere van stedelike ontwikkeling, oplossings aan die beplanningsbehoeftes van die streek bied, ondersoek word. Dit is tog belangrik om die mislukkings van plaaslike toegekende inisiatiewe te erken. Die metodes is wyd gekritiseer (Brockerhoff, 2000; Arimah & Adeagbo, 2000) en dit is nie die fokus van hierdie artikel nie, maar dit is nodig om te erken dat die beplanningsprofessie wel gedurende die beplanning van onderrigsisteme op hierdie metodes staat gemaak het. Nieteenstaande uitdagings soos hulpbronne, leierskap en politieke beskikking, het beplanningsonderrigsisteme 'n rol gespeel in die beïnvloeding en vorming van stedelike ontwikkeling in die streek. Alhoewel beplanningsmodelle gekritiseer is, het die beplanning van onderrigsisteme minder aandag

in vergelyking met hul rol in die beïnvloeding van die ontwikkelingspaaie van stede in sub-Sahara Afrika ontvang. Net so is daar nie na die beplanning van onderrigsisteme as 'n vertrekpunt in beplanningsvernuwing vir nuwe stedelike Afrika gekyk nie. Uit ondervinding van stede in die streek, kan twee stedelike ontwikkelingsprosesse uitgesonder word: eerstens, die ontploffing van sommige stede spesifiek voormalige koloniale administratiewe of ekonomiese spilpunte en, tweedens, die snelgroeiende sekondêre stede. Daar is ook baie klein landelike handelsentrums en 'gehuggies' met 'n digtheid wat vergelyk kan word met woonbuurte in megastede. Laasgenoemde, voorgestel in hierdie artikel as verstedeliking deur inploffing, is nie heeltemal daarvoor verantwoordelik nie, soos gerapporteer in die nasionale statistiese verslae. Verskeie ander motiveerders is verantwoordelik vir hierdie verstedeliking insluitend populasie-dinamiek, wetlike ontwerp, en verhoogde digtheid in landelike handelsentrums. Die uitdaging van sosiale diensteverskaffing, volhoubare ekonomiese ontwikkeling, behuisingvoorsiening, stedelike owerhede, ruimtelike ontwikkelingsriglyne en stedelike omgewingsbestuur in die beplanning van onderrig in die konteks van die aanspreek van bestaande behoeftes, moet nog deeglik geanaliseer en deurdink word. Hierdie artikel ontleed die beplanning van onderrigsisteme en hoe dit 'n invloed gehad het op die natuur en vorm van stede in sub-Sahara Afrika waarvan die uitkoms nie wesentlik op bestaande behoeftes gereageer het nie. Die artikel sal ook moontlike nuwe vertrekpunte in die beplanning van onderrig identifiseer wat 'n verskil kan maak om die bestaande behoeftes van sub-Sahara Afrika aan te spreek.

MORALO WA NTJHAFATSO HO NTLAFATSA BAAHI BA DIBAKA TSA METSE YA DITOROPO AFRIKA YA SUB SAHARA

Dibaka tsa metse ya ditoropo tsa lebatowa la Sub Saharan Afrika di fana ka diphepetso ho moralo wa dibaka tsa metse ya ditoropo le lebatowa wa thuto e phahameng, batsamaisi ba metse ya ditoropo, baetapele, boradithuto le badudi jwalo ka ha ba hlokometswe ke (Rakodi, 1997, Rakodi, 2001; McGill, 1988, Diaw, et al., 2002). Taba ena e etsahala ka nako eo Afrika e potlakang ho ba le phallelo ya dibaka tsa metse ya ditoropo ho ena le lebatowa lefe kapa lefe (UNHabitat, 2008) ho bitswa hore batho ba nahane hape ka moralo ho arabela ditlhoko tse teng. Le hoja boemo ba phallelo ya dibaka tsa metse ya ditoropo ya jwale e le ho 39.1% (UN-Habitat, 2008), e lebeletswe ho eketseha ho fihlela ho diphersente tse mashome a mahlano (50%) ka selemo sa 2025. Dipalopalo tsena tse phahameng di bonahala kontinenteng

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ya Afrika, haholoholo lebatoweng la Sub Sahara le fana ka diphepetso tsa honajwale le tsa ka moso. Keketsehong ya diphepetso tsa ka moso, potso e sa arabuwang hore na mekgwa e teng le e sebedisitsweng haholo ya ntshetsopele ya dibaka tsa metse ya ditoropo e fana ka ditharollo na ho ditlhoko tsa moralo lebatowng le hlokang ho batlisiswa le ha ho le bohlokwa ho hlwaya tse sa kang tsa atleha tsa mesebetsi ya lehae e bopilweng. Mekgwa ena e ile ya tshwelwa ka mathe ka bophara (Bockerhoff, 200; Arimah & Adeago, 2000) mme sena ha se moo ditaba di tsepameng teng ke feela ho hlwaya hore thuto ya moralo e itshetlehile mekgweng ena ka mokgwa wa thuto ya moralo. Ka diphepetso tsa mehlodi, boetapele, maemo a dipolotiki le ha ho le jwalo, mekgwa ya moralo ya thuto e sebeditse haholo ho susumetsa le ho bopa ntshetsopele ya dibaka tsa metse ya ditoropo lebotoweng lena. Le ha mekgwa ya moralo e ile ya tshwelwa ka mathe, mekgwa ya moralo ya thuto ha e a ka ya tsotellwa ho latela tshebetso ya yona ho susumetsa ditsela tsa ntshetsopele tsa dibaka tsa metse ya ditoropo ho la Sub Saharan Afrika. Feela jwalo, mekgwa ya moralo wa thuto ha e a ka ya tadingwa hantle e le dintlha tsa ho kena moralong wa ntjhafatso ya Afrika ya dibaka tsa phallelo ya batho tsa metse ya ditoropo e ntjha. Ha motho o ithuta ho tswa diketsahalong tsa dibaka tsa metse ya ditoropo tsa lebatowa lena, ho ka hlakiswa ditshebetso tse pedi tsa tswelopele ya dibaka tsa metse ya ditoropo; ho phatloha ha dibaka tse ding tsa metse ya ditoropo haholoholo ditsamaiso tsa mebuso ya bokolone kapa dibaka tsa meruo mme sa bobedi e le kgolo e potlakileng ya dibaka tsa metse ya ditoropo. Ho sa boetse ho ena le ditsi tse nyenyane tse ngata tsa dithekiso le matlo a mahaeng a teteaneng ha o bapisa le dibaka tsa metse ya ditoropo e mabapi le moo. Taba ya qetelo mona ditabeng tsena ke lentswe ka ha phallelo ya metse ya ditoropo ka ho phatloha ho sa elwa hloko ka botlalo dipehelong tsa dipalopalo tsa setjhaba. Bakganni ba bangata ba ikarabella phallelong ya dibaka tsena tsa metse ya ditoropo ho kenyeletsa le; dipalolpalo tsa setjhaba, popo ya molao, keketseho ya ho teteana ditsing tse dibaka tsa mahae kapa mapolasi tsa marekelo. Diphepetso tsa ho fana ka ditshebeletso tsa kahisano ntshetsopele ya moruo o tsitsitseng, ho hahela batho matlo le ho ba neha ona, ho busa dibakeng tsa metse ya ditoropo, tataiso ya ntshetsopele ya sebaka le tsamaiso ya tikoloho ya moruo o tsitsitseng di sa ntse di tshwanetse ho lekanyetswa ka botebo le ho nahana hape ka moralo wa thuto mothating wa ho sebetsana le ditlhoko tse teng hajwale. Ditaba tsena di hlahloba mokgwa wa moralo wa thuto le kamoo di bileng le tshusumetso kateng mokgweng wa sebopehong sa dibaka tsa metse ya ditoropo tsa Sub Saharan Afrika sephetho seo se sa kang sa arabela ditlhoko tse teng ka botlalo. Ditaba tsena di tla boela di hlahisa ntjhafatso moralong wa thuto o ka bopang phapano ho lokisa ditlhoko tse teng ho la Sub Saharan Afrika.

1. INTRODUCTION

Planning is generally a daily activity conducted by everyone. However, this article will focus on urban planning expanding to spatial planning in order to widen the context. Urban and regional planning has presented more challenges to the sub-Saharan African region in terms of practice and implementation of usually well-intentioned spatial plans to guide development (Rakodi, 1997; Rakodi, 2001; McGill, 1988). It is also important to note that planning education has drawn on these models shaping future planners' thinking, but also providing the basis for planning practice. Coupled with the fact that Africa is the most urbanising region globally (UN-Habitat, 2008: 22-27), it is now clear that the existing needs of the majority of urban dwellers are to a large extent not met, urban systems are mainly inefficient, and the problems of urban development are exacerbated (UN-Habitat, 2008). Although Africa's urbanisation is at 39.1% (UN-Habitat, 2008: 26), it is estimated that by 2025 close to half of Africa's population will be urban. This outstanding demographic shift on the African continent and particularly the sub-Saharan Africa region presents current and future urban challenges. This, in turn, raises the unresolved question as to whether existing and much utilised theories and models of urban development offer solutions to the planning needs and urban development in sub-Saharan Africa, but it is also important to recognise the failures of locally designed initiatives. The models and theories have been critiqued widely (Brockerhoff, 2000; Arimah & Adeagbo, 2000), and this is not the focus of this article. However, one has to understand that the planning profession has relied on these models for a long time, and this is the reason why this article refers to the models from an educational perspective. The demographic shift currently experienced in sub-Saharan Africa has led to an explosion of primary cities, densification of secondary cities, with a significant feature of small rural trading centres and rural 'hamlets' with increasing densities. This implosion of urbanisation is unaccounted for in the national statistical reports (Qadeer, 2004). Several drivers are responsible for the urbanisation, including population dynamics and legislative designation. With the differing but staggering rates of urbanisation in various sub-Saharan countries, the challenges for urban development are daunting. These challenges include social service provision, sustainable economic development, housing delivery, urban governance, spatial development guidance, and urban environmental management, including adaptation to climate variability and change that has added another dimension to the inherent challenges (Arimah, Jensen, Mutizwa-Mangiza & Yemeru, 2009). In addition, the challenges pose sustainability concerns, which require well-designed impact pathways for urban development. The role of planning education in defining the pathways will remain as important as it has been historically, but the question is how has planning education shaped the planners over the past decades and how does it need to innovate in order to influence urban reality?

There are numerous planning initiatives in the region, but questions are still raised as to how such planning has been conducted and the translation of the plans into action for the desired changes in urban communities (Diaw et al., 2002: 340-343). The reason is that the planners involved in this gigantic exercise have been trained, to a large extent, by professionals drawing on Western models. These professionals, trained in the Western world or products of the planning schools, rely on these models. One of the arguments is that planners in sub-Saharan Africa have been prepared neither for urban realities in the region nor to respond to the revealed needs. This article argues that innovation is required in planning practice, and asks in which ways is planning education required to adjust to the needs for desired change in the future urban Africa.

2. PLANNING EDUCATION: A GLOBAL PERSPECTIVE

Globally, planning education can be historically traced in northern Europe before it spread to other regions, including Africa. It was more recently introduced in African universities. In the advent of planning education in Africa, theory and models for urban development were transferred from Europe onto African traditional systems that were arguably unprepared for the new systems of housing, standards, public services and procedures characterised by top-down approaches (Smyth, 2004; Shalaby, 2002; Ndura, 2006). Planning practice remains similar to colonial administration which often used a strong

legal approach. Similarly, planning education has drawn on professionals trained in Europe and North America, utilising the same approaches to shape the planner charged with addressing the African urban challenge. This educational approach and practice have influenced the planning profession over the past century. These include substantive and process theory, as well as positive and normative theories with various planning colloquiums such as centralised versus transformational planning systems (Bennett, 2003). On the other hand, there are the Global South theories, models and practices of which a few have been documented while many remain undocumented or systematically described (Ndura, 2006). This divide provides a sound basis for our understanding, in the subsequent sections, of the entry points for innovation in planning education. Based on the theories outlined above, planning education and practice in sub-Saharan Africa has, to a large extent, been influenced by various planning paradigms of master planning, structure planning and innovative planning, currently under test in some countries of the region (Valk, 2002; Simpson & Chapman, 1999). These paradigms have pursued planning in different ways: functional versus territorial planning; geographical and administrative area planning, and time horizon planning (Bennett, 2003). Despite this rich theory and paradigm, the question is whether the outputs and means of achieving elaborated ends have translated into spatial-social changes in cities of sub-Saharan Africa. The second question is whether envisaged outcomes of the plans correspond with the societal values, needs and anticipation? As noted by Diaw et al. (2002), planners in Africa have been equipped with sufficient skills and knowledge to respond to the planning needs, but this has been mainly for plan outputs and less for the implementation of outputs. Several researches, evaluations and commentaries have presented the successes and failures of planning in the Global South (Mukwaya, 2001; Goodfellow, 2010; DPU, 2004; Arimah et al., 2009: 34). From Orangi project in Karachi to Lima and Bogota, Lagos, Nairobi and Johannesburg, literature shows fewer successes of planning which have been mainly dominated by Global North theories and models (Egbu, Antwi & Olomolaiye, 2006). The inability of spatial plans to realise societal goals, to deal with housing, poverty, urban services, urban

environment and enhancement of urban governance is evident in most of the cities in sub-Saharan Africa (Jain, 2003). Efforts and sectoral initiatives by development agencies and UN organisations spearheaded by UN-Habitat, civil society organisations and governments are also yielding less than the much needed required results of planning despite the uptake of planners trained for formal planning (Jain, 2003). Planning education and its outputs or outcomes in this context can be viewed as a distinctive fusion of Global North with characteristics of Global South and, in particular, sub-Saharan Africa. In considering these experiences, a question can be posed as to whether Global North-influenced planning education and practice is relevant for the 21st-century urbanisation in sub-Saharan Africa? Whereas the intention is not to disqualify its relevance, it is crucial that entry points be identified for renewed and innovative planning that is responsive to societal needs. The subsequent sections will endeavour to provide some pointers to this question and raise some of the much needed educational changes in theory, policy and practice concerning which planning innovations should emerge.

3. THE INTERFACE BETWEEN PLANNING EDUCATION AND URBAN DEVELOPMENT EXPERIENCES IN SUB-SAHARAN AFRICA

There are many experiences of the interactions between the Global North-oriented type of planning and urban development experiences in sub-Saharan Africa that are driven by current planning practice. This interface of the theory and practice, on the one hand, and the urban development experiences, on the other, show how social and political processes have shaped urban development, contesting the principles which planners often advocate in developing planning policy. The experience is what some scholars such as Rakodi (2001) have expressed as 'politics first' before planning can work in sub-Saharan Africa, while scholars have also echoed the gaps between the plans and the reality of urban development in sub-Saharan Africa (Lwasa, 2006; Koojo, 2005). The interface can be described as one engulfed in a mix of the 'traditional' planning concerns of societal values based on the substantive planning needs, on the one

hand, and the procedural requirements (Bennett, 2003; Koojo, 2005) with the latter superseding the ability of plans to address the substantive needs, on the other. Thus, conditions of inadequate urban infrastructure, housing, social services, space utilisation or underutilisation, congestion, inefficient public transport, poor environmental services and low urban economic transformation have been engulfed in a complex set of procedures that are known by few planners or urban managers and driven mainly by politics. The result is a mixed type of urban development that can be described as informal with pockets of formal areas creating a duality (Koojo, 2005; Egbu et al., 2006). Planning exists and professional planners are applauded with their persistent efforts to ensure orderly urban development, but the translation of such effort into social reform and change remains a fundamental planning question, because of the mismatch between the plans and urban development experiences. Planning education is, to a large extent, the underlying driver of this process due to the long-standing influence by standards, rules, regulations and approaches to practice.

3.1 The mismatch between plans and urban development in sub-Saharan Africa

The success of urban and regional planning in sub-Saharan Africa and, in particular, Uganda has become unpredictable (Egbu et al., 2006; Arimah & Adeagbo, 2000). Planned outcomes are often not achieved, because cities develop as a result of millions of independent consumption and production decisions by different individuals, organisations and groups. On the other hand, many positive outcomes of planned intervention are not anticipated, as is the case with some planning intervention projects (Mukwaya, 2005; Jain, 2003; Andersson, Matthis, Paredes & Ngxowa, 2004). There is evidence of positive outcomes of urban planning as a result mainly of piecemeal planning (UN-Habitat, 2008). This has created pockets of isolated well-planned and developed neighbourhoods, industrial parks and transportation corridors in many cities in sub-Saharan Africa. In the case of Uganda, planning successes are evident in the numerous secondary towns dotted around the country where somewhat more responsive planning procedures are still in place and followed by town managers and

developers. However, the greater part of urban development in these towns and major cities of Uganda is occurring chiefly informally with an imprint that contradicts the designed plans (Lwasa, 2004; Koojo, 2005). The planning failures in sub-Saharan Africa are attributed to many factors, including lack of municipal resources, enforcement, land issues, as well as human resource adequacy and capacity. However, the issues of governance and institutional aspects have recently been outstanding (Lwasa, 2006; Rakodi, 2001; Goodfellow, 2010: 7-11). Yet, the major 'players' in urban development who are the developers of differing categories and characters have not been well linked to the values of planning and orderly development. The other argument put forward by Leibowitz, Bozalek, Carolissen, Nicholls, Rohleder & Swartz (2010) and Jain (2003) is that the planning profession may not have embraced, let alone been able to understand the values of communities and African urban populations. There is also evidence of the missing link between the planning policy strategies and planning action chiefly shaped by the practice of development control (McGill, 1988). Debunking some of these practice frameworks is still a highly technical and major challenge, which maintains planning as abstract, thus mainly non-responsive to social needs and change in Africa. The fundamental basis for urban and regional planning is for development to meet the needs and aspirations of the population or enable such population to creatively innovate in order to meet their own needs. It is important to recognise the different needs and aspirations of a diverse society and/or population with possibly locally defined values. Innovation in planning education should aim to break the continued urban development trends in sub-Saharan Africa. There have been recent calls for a sociocratic type of planning or ecological planning and, with many concepts used, this type assesses the existing resource base of a community and/or city in order to devise strategies for a catalytic spatial plan that would enable the population to unleash their potential. In this instance, resource implies social/political, capital, human and natural/man-made assets.

Following the discourse of the major issues of planning theory, urban development and the analysis of planning successes and failures, it is necessary to discuss where planning needs to innovate. It can be argued that planning in sub-Saharan Africa is at crossroads and calls for a type of 'new planning' which, among the most urgent issues, needs to deconstruct the current urban development imprint. Planning education requires rethinking of education and practice.

4. INNOVATION IN PLANNING EDUCATION: WHAT IT IS? AND WHY?

The concept 'innovation' has been defined differently by various people (Bennett, 2003), because it has become a buzzword in the quest for solutions to the unresolved questions and problems in various fields (Crossley, Chisholm & Holmes, 2005). Innovating has been known in natural science and business as creating or finding something new in a particular context. This section attempts to provide an understanding of the concept 'innovation' as a launch pad for the subsequent sections of this article. In this context and in the author's opinion innovation is understood as the development of systems that are new in the context of planning, utilizing creativity that can be based on adapted local conditions, principles and methods. This planning innovation would require debunking various aspects such as, among other things, the planning colloquium strictly followed by education. Such innovative planning would have to consider using the debunking of the 'business analogy', as observed by McGill (1988) who explains the operations of commercial businesses, their targets and the means to achieve those targets. One needs to understand the process theory of business, in this case commercially oriented business and the substantive issues of commercial business, and the link between the business entities and the targeted market population. In the context of spatial planning, the substantive issues are urban development sectors and the contemporary procedures characterised by a fusion of formal and informal. Planning innovation for better communities will have to emerge chiefly from sub-Saharan Africa where different actors in urban development would need a platform for the exchange of ideas, knowledge and skills for developing strategies on how to ignite the much needed social change for sustainable and inclusive urban development. This article draws on an empirical example of a collaborative project that brought together educators, community members, students, municipal managers, planners and policymakers at city level in Kampala to design and implement a sustainable neighbourhood under the theme "Making the Edible Landscape". The lessons drawn from this project speak a great deal about how collaborative and reality studio can change the pedagogy of planning and provide future planning practitioners with innovative ideas on how to respond to urban realities.

4.1 How can the planning education and profession innovate?

There are many ways in which planning innovation can be achieved. This article attempts to describe some of the key areas in which innovation is required and how such innovation can be harnessed.

4.1.1 Planning education

It has been argued for a long time that planners in sub-Saharan Africa have a theoretical-professional-practice foundation with a Global North touch (Jowi, 2009). This is true, given the history of planning education in sub-Saharan Africa that was characterised by first-level training in a different discipline prior to training in planning at graduate level. Evidence shows that the switch to African-based training and education in planning has provided the much needed human resource to confront the urban development challenge with the argument that local training will enable planners to gain experiential knowledge in terms of planning needs, problems and solutions (Diaw *et al.*, 2002: 346-347). However, the translation of this experiential training into real solutions to the local planning problems and challenges remains to be seen (DPU, 2004: 2-4; Breidlid, 2009). One of the many attributes of this type of training is that it is still, to a large extent, shaped by planners whose skills, theory, practice and models do not align properly with the urban development pathways in sub-Saharan Africa. Thus, as Shalaby (2002) noted, urban development is truly a social process constructed by planners whose orientation is shaped by background training and/or their own experiential knowledge which does not necessarily intercept the social problems and needs. Innovation in education is thus necessary as it provides experiential knowledge and solutions to the problems of African urbanism. For

example, the issue of planning stand-ards for housing (materials, sizes, plot coverage) has been discussed at various international fora, but has not been substantively resolved nor have flexible or adaptive standards been developed (Rakodi, 1997). However, good practices or cases from various countries, including Uganda and Tanzania, have considered mixing residential with light industry in order to take into consideration home-based small-scale industrious activities. This is one of the many ways in which planning education can be innovative. This innovation requires an in-depth review and reorganisation of the education system. Some of the specific areas where planning educa-tion needs to innovate are described below. In the Edible Landscape project of Kampala, architecture and planning students acquired experiential knowl-edge by interacting with the commu-nity and policymakers under a dynamic action research project. Deviating from the university studio environment, students appreciated the needs of communities and innovatively made a neighbourhood design which, in theory, would address the needs. The following photograph illustrates the students working on the housing prototypes after consultations with the beneficiaries.

As shown in the design above, from conceptual planning to implementation strategies, the community, policymak-ers, planners, educators and students participated interactively in order to find a design that responds to the needs, catalyses local opportunities and is environmentally friendly. Some of
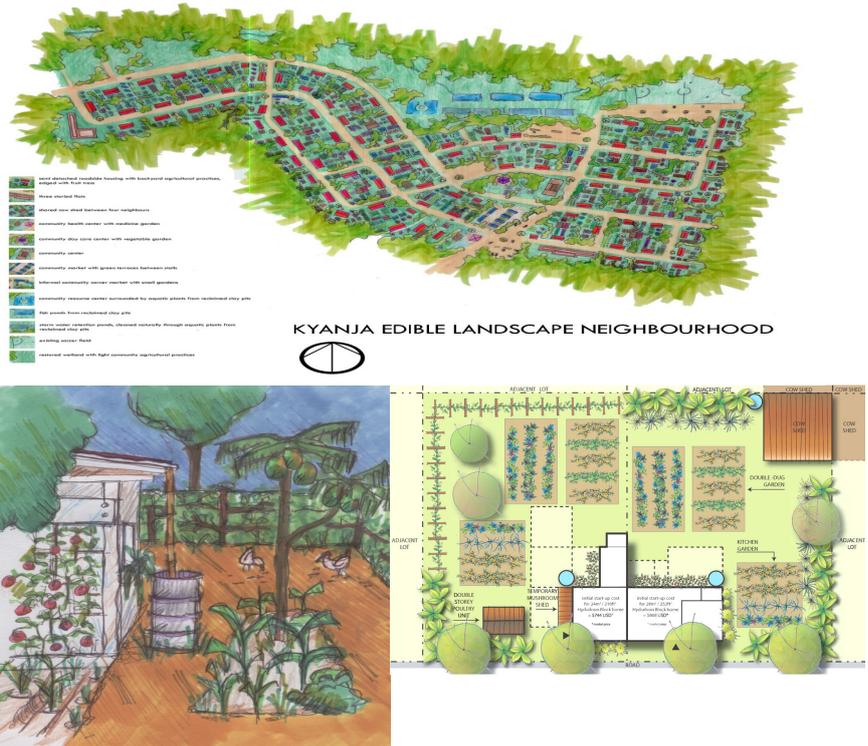

Figure 2: A neighbourhood design and detailed plot utilisation for productive spaces. Making Edible Landscape Kampala City Council, McGill University and Makerere University 2006
Source: KELP project

the key learning points were: students' interaction with community members; integration of environmental strategies in a plan at a micro-level; space-confined technologies promoting productive neighbourhood spaces, and self-sustaining neighbourhood on minimal but adequate infrastructure that relies on local resources. Although the neighbourhood has not taken off

as yet, its failure is chiefly attributed to institutional systemic barriers and laden interests related to a lively land market.

4.1.2 Innovative planning research, moving from projects to policy programmes

Spatial planning research has received little attention compared to develop-ment and economic planning, with the latter often misconstrued to be synony-mous with the former, as is the case in Uganda. In this article research means a quest to learn what, why and how con-cerning issues of urban development in which education plays a basic role in shaping future researchers and identify-ing research issues. Thus, even a mere field visit trip by a building inspector on a site can be monitored, but when data is collected for use later it has many re-search implications. There has also been a practice of human resource recruit-ment for urban spatial planning tasks and of determining such recruitment on the basis of training in planning-related fields. This is changing, although it has not ignited spatial planning-focused research. The majority of the planning research is from the disciplines of substantive theory which is laudable and appropriate, but lacks integration of spatial planning dimensions. Thus, the

Figure 1: Students working on draft plans
Source: Taken by author on 9 February 2005

outputs and recommendations of such research have remained chiefly project intervention-specific as baselines for a planned intervention. This has in a way directed spatial planning in terms of 'projects', and one can argue that there has been a 'projectisation' of planning itself and urban development in general. The result is a scattering of often slightly improved neighbourhoods, industrial parks and developments due to piloting while many remain in poor condition. This results in the communities' discontent that enters the political arena and has now translated into the 'storming' that is common in decision-making bodies such as municipal councils. Some of the key urban challenges in which planning research is useful and needed include urban livelihoods, urban environment, urban poverty, urban transportation about which there is a paucity of knowledge, inadequate or requiring to identify alternative models for provision of services, and guiding urban development. In addition, there are various dynamic conditions in the urban field, including governance, resource mobilisation and management, and the increasing role and creativity of the private sector which, despite being vibrant, are also less understood from the planning point of view.

Following the adage that "knowing a problem cause means you have solutions for it", it is imperative for planning education to reflect on these challenges through adapted or different lenses. From basic to applied research and participatory research, these domains offer great opportunities to support planning innovation, knowledge generation and making informed planning interventions. Some of these research undertakings have been revealing. For example, whereas the planning profession has always grappled with the issue of 'standards' in respect of land and housing, it has been revealed that many people may not be in a position to afford such 'high standards' and, coupled with other factors, this influences the urban development imprint in the region (Rakodi & Lloyd-Jones, 2002; Rakodi, 1997: 57-59; Rakodi, 2001). Research indicates that with this experience and projectisation, a move from projects to policy thinking is necessary (McGill, 1988; Arimah & Adeagbo, 2000; Lotz-Sisitka, 2010). This move entails programming of urban development and recognises incrementalism or phasing but most importantly ensures adhering to plans by means of

the routine actions that would lead to the desired goals. Participatory research has provided some evidence but perhaps no answers; this calls for starting now, because urban development can be described as already getting out of hand (Lwasa & Kadilo, 2010). A triple helix model that would enable a platform of knowledge generation and exchange would be useful, one that brings together local governments and governments, on the one hand, research organisations/NGO's as the second category, and communities as the third category, to investigate problems and seek locally based solutions within affordable ranges (Egbu *et al*., 2006: 22; Higgs, 2008; Williams, Reid, Myeni, Pitt, Solarsh & Williams, 1999). Following the Making the Edible Landscape Project in Kampala, another initiative that focussed on knowledge-informed policy utilised action research to establish a platform for urban knowledge generation and use (Lwasa & Kadilo, 2010). Once again, in bringing together education institutions, policymakers, planners, communities, municipal authorities and civil society organisations, the Focus City Project exemplified the importance of knowledge and links with policy and planning for urban transformation.

4.1.3 Education and planning information that is never used

As Mahavir (2005) and Lwasa (2005) note, planning is usually preceded by collecting large volumes of data which are often never processed into useful information or being utilised. Planning education has employed this approach for a long time in training planners, partly driven by the many urban sectors of planning dealt with in the process of formulating plans. Given the gamut of planning information needs, this means that any initiative to collect, analyse and utilise planning information could have experienced a situation of 'too much' data and 'less' utilised data. Education systems have shaped and trained planners in the practice of collecting data on almost everything concerning urban planning issues. This is not surprising, because planning usually projects development into the future, which may be uncertain. From social and economic surveys to spatial information on land use and other physical components, data are collected but partly analysed. It is assumed that, considering the scale of data collection, the solutions to urban problems would

be understood, explained and derived. Not all the data collected by planners is actually used in a plan-making exercise. In fact "very little", a planner will discreetly reply. Mahavir (2005) observed that only 60% of data actually become input for plan-making. The reason why planners collect so much data is a conventional approach influenced by the planning models on which education in sub-Saharan Africa has relied so much. Considerable amounts of time and other resources are spent on collecting and analysing the same data. This, in turn, delays the start of the planning process, sometimes by several years, as Mahavir further observes. Differentiation between essential and desirable data should provide the answer to this waste of resources, an aspect to which education does not give due attention. The key issue in this instance is that this information takes an enormous share, in terms of both financial resources and time. However, if an evaluation is conducted, one wonders whether such scale of data analysis has really translated into solutions in sub-Saharan Africa. The innovation concerning planning information is likely to come from strategic determination and use of planning information, given the level of our information systems. This would mean education skimming through the available information as well as urban problems in order to develop the skills to identify data that are essential to the planning exercise. If utilised, these would have a multiplier effect in solving other related problems. This implies dealing with the 'most important problem' which Amdam & Veggeland (1998) call the 'garbage-can-model' in which the decision-making process is activated by identifying the problems, active participants and a stream of solutions by those experiencing such problems.

In practical terms, it is assumed that urban problems of livelihoods for the majority of dwellers as well as public transportation are serious issues in a city. If collection of data about each would have to run baselines, it would be an enormous undertaking. By strategic determination and skimming, the stakeholders may view livelihoods as the most important problem and would be interested in innovatively creating employment (whether informal as in the case of promoting delivery services by street naming and geocoding) that may translate into improved incomes, with potential multiplier effects

on housing and the vibrant urban economy. This applies to existing cities and neighbourhoods and, from our research, livelihoods-based strategies have a place in innovative planning (Lwasa & Kadilo, 2010). In comparison, the public transport multiplier effect may be mainly on the energy sector and incomes (KCC & World Bank, 2000). It should be noted that the resources required for studying livelihoods are likely to be far lower than those for improving public transport. One must note, however, that coupling urban system components such as the two raised in this instance would possibly produce better results more quickly. Based on a Kampala experience, it emerged that over 60% of the urban dwellers use either walk or cycle modes of transportation to and from their places of work. Yet, there are considerable resources for improving roads and traffic counts. In this case, innovative planning that addresses either livelihoods coupled with alternative modes of transport or only alternative modes of transport would most likely respond to the existing needs compared to traffic counts and improvement of road infrastructure.

4.2 Mobilising resources for planning: Economics of planning, from costs of plan production to societal costs

Mobilising resources has been touched on mainly as a big challenge in urban management (McGill, 1988). Mobilising financial resources remains a long-standing obstacle in planning and urban development. Attention has been paid to costs for producing plans as is the case for the Master and Structure Plans. One important point is that in sub-Saharan Africa the majority of city or municipal scale plans have been produced mainly through external funding. This is likely to continue unless an alternative to mobilise resources from planning innovators emerges. There is also the much talked about local and/or community level mobilisation of resources which has either fallen victim to projectisation or the learning of which has not been disseminated, despite the good lessons (Andersson et al., 2004). There is little evidence of existing systems and initiatives for utilising locally available resources for planning and its interventions. Yet, the costs of not planning are actually those of not doing it, and the planning profession cannot afford to continue in this manner. The societal costs are considerable

and, if one attempted to translate them into monetary terms, they are alarming. For example, in one study in Kampala, health-related impacts of environmental burdens were monetised for direct and indirect costs, and results show that 15% of a household income is spent on defensive expenditure or cost-of-illness expenditure. For that neighbourhood alone, a total economic value of $1.7 million (Lwasa, Laplante & Larsson, 2008) was calculated and, if one factors in the neighbourhoods with similar conditions, the cost is no doubt high. The question is: Should the planning profession look on as the costs become increasingly higher for our society? If not, what models are needed to ensure the provision of basic services such as water even to informal settlements that could defray the considerable societal costs? A possible innovation would be to use an ecological planning approach which localises problems and solutions as well as building on the existing resources available. One of the key principles of such planning is transparency in order to respond to social needs. This is probably what Bennett (2003) calls sociocratic planning. But how receptive are the planners and planning educators to new models and thinking within the profession? Changing lenses by practising planners and educators is necessary to view societal costs of inadequate planning, not planning and not plan implementation. The role of education in this innovation cannot be doubted (Goodfellow, 2010).

4.3 Bridging the gap between policy guide and policy action

Like other policies for urban development, planning policy has chiefly remained at the broad guidance level with a policy document stating principles and targets (DPU, 2004) which are usually contained in a structure plan (Arimah & Adeagbo, 2000). There is less progression of such a guide to strategies and actions which, in the context of this article, are referred to as policy strategies and policy actions. There is an obvious mismatch between planning policies and policy actions. There are many examples in sub-Saharan Africa, but one striking example is that of the 'one-stop centre' proposed in some of the Structure Plans in the region which until now is not reflected in the policy actions, the routine actions and interventions of planners and the planning authority. In the case of Kampala, a one-stop centre was conceived as

an institution-based centre that would receive process and communicate decisions about applications to developers in the shortest time possible, thus reducing transaction costs. In practice, plans are still referred to the centre; decision-makers make direct contact with developers; the stipulated time for processing building plans is often not followed, and information that needs to be provided to developers is still mainly exclusively for technocrats. This is a serious gap which has translated into local level standards, procedures for development control and planning territories superficially created by practising professionals. Planning policy action must be embedded in the routine activities of any planning authority which should be exercising 'policy thinking'. It must provide free information to the public and recognise that urban development is the result of milliards of decisions by many people. Following each decision not only requires resources but is also impractical. According to Rakodi (2001; Rakodi, 1997: 64), planning decisions in sub-Saharan Africa have been overtaken by politics which, unfortunately, defines the frameworks for dialogue among stakeholders. As long as such dialogue is dependent on patriarchal relations among stakeholders, planning will remain stagnant and blaming will continue to occur when non-revealed societal costs become apparent.

Innovation concerning this issue could occur by using 'simple' but often overlooked initiatives in order to improve planning policy actions. One such initiative is the demystifying of the development control procedure. This would mean that any individual or institution that attempts to hijack the 'right' or approved procedure would be negated since it would be evaluated by an informed public. In studies conducted in Kampala by Lwasa (2004) it was established that developers at the lowest level of the village or neighbourhood are willing to cooperate and act on the advice of Kampala City Council planners but they lack information on many planning requirements. Specifically, developers were willing to observe the standards regarding setbacks, plot coverage and housing, but did not have sufficient information, while the respective offices were not willing to provide such information. There is reported success of some public agencies in sub-Saharan Africa in respect of demystification of procedure which has substantially reduced

public access to information. If planning authorities could employ less resource-requiring initiatives, it would contribute towards improving our urban communities (Mukwaya, 2001). Policy thinking is another important issue in bridging the gaps between policy strategies and policy actions. This means living, practising and enacting planning policy, which entails setting goals and working towards achieving the goals. The role of education in this respect lies in training planners in the ethics and principles of practice. Training future planners is important by taking them through the issues of societal costs, policy thinking and how issues of territoriality in practice hamper organised development.

4.4 Redefining community roles: The role of education

Planning in sub-Saharan Africa still remains mostly technocratic, a field of practice for highly trained and sophisticated professionals with less inclusive rules, regulations and standards (Koojo, 2005). Such planning expects the communities' adherence or non-adherence to regulations. While it is important to have rules, regulations and standards, there is also a need to recognise that this should be responsive to social needs which differ from one neighbourhood to another and between societies. Societal needs reflect both people's state of being and ideals. However, planning policy in sub-Saharan Africa mainly responds to the societal ideals. But some questions are raised: Who defines such ideals? For what needs? How would they be achieved? One needs to reflect on the 'societal values' theory in planning which, among other tenets, underpins the ideals of 'space'. In the context of urban space, one would have to make do with divergent concepts of space depending on how it is defined? Who defines it? And who determines how it should be used? Related to the space paradox is the power to decide which is defined in governance structures (Leibowitz *et al.*, 2010). Existing and contemporary planning models such as the rationalistic model are silent about the roles of communities in respect of the ideals, space definition and decision-making. Yet, broadly speaking, planning is about dialogue to enable decision-making. In this domain, the planning profession has not done enough to promote decision-making that encompasses the communities. Often, solutions are handed down to them and this has for a long time shaped community thinking as that of being on the receiving end. Some practical issues are that, if communities are indeed truly on the receiving end, how would one expect them to 'know' when information is not provided to them? The educational innovation in this instance would be to redefine the community roles from mostly receivers to major decision-making stakeholders (Andersson *et al.*, 2004). This is one of the most talked about approach to 'new planning' which has not been fully tested due to its limitation of resources and time-requiring condition. But not testing participation has not yielded positive results for better communities. Planning education needs to take the community-based educational approach as a platform to test the participatory approach that redefines community roles. It is important once again to note that deconstructing a neighbourhood would possibly require enormous resources rather than constructing it progressively and incrementally with the communities.

4.5 Innovative urban design

As the search for solutions to inclusive urban space utilisation progresses, urban design is responding to the realities of societal needs and revelations of innovative research and knowledge generation. Interestingly, one would assume that this is derived from the Global South or from sub-Saharan Africa, but not entirely. There are Global North innovators whose desires to see a transformation of the sub-Saharan Africa urbanisation is as deep as the population in sub-Saharan Africa. For example, because residential land use places the greatest demand on urban land compared to any other use, its importance is, without doubt, placing it high on the planning innovation agenda. Based on a case in Kampala which was preceded by urban management policy innovation, urban design can now consider integration of urban agriculture with housing, making the best use of limited space but providing housing, income and food while maintaining the environmental services. The Edible Landscape Project by Kampala City Council was showcased at WUF III Vancouver, and during the last session of WUF IV, Kampala was again showcased as one of the innovative cities responding to the societal experiential needs (food, income, nutrition) through designs. Although both the results and outcomes of this innovative design are yet to be fully realised, it is a promising innovation worth replicating and distributing through education. It has the added advantage of providing a basis for urban adaptive designs to climate change and variability. As contributors to GHG's and the cities vulnerability to climate change effects, adaptive urban designs that focus on plot-level hydrological, climatic and vegetative systems can have a profound impact through cumulative progression of localised changes.

4.6 Informality, formality and institutional reform

From commentaries, research and evaluations, the informalisation of urban development in sub-Saharan Africa has been well documented (UN-Habitat, 2008). Informality is, however, occurring amid formal rules of engagement in urban development (Jain, 2003). Planning has not been spared by this informalisation. There has been a good discussion of the fusion of the two seemingly different systems (Lwasa, 2006). Whereas informality has, to a large extent, imitated the formal rules with adaptation, formal systems are also characterised by informality. In Kampala, for example, the dualistic nature of urban development (Koojo, 2005; Lwasa, 2006; Nkurunziza, 2008: 110-112) describes not only the informality of housing, infrastructure installations, and services but also the development control procedure which is an important planning policy action. The key issue regarding formality and informality concerns the rules of engagement defined by institutional set-up which are less emphasised in planning education. These specify how individuals relate in urban development, roles and responsibilities. Experience shows that institutions are characterised by three blanket levels for enforcement of the rules. The first level is the 'official policy rules' that are often well documented. The second is the 'unofficial policy rules' that are not documented but are part of the routine policy action of individuals in positions of public institutions. The third level can be considered the 'official-unofficial policy rules' that are not documented but guide routine planning policy action. To substantiate these rules, the discussion will focus on the last two. Individuals practise the unofficial policy rules, based on patronage, favours and sometimes selfish acts. Because of the risks associated with boldly identifying oneself as an agent of unofficial policy

rules, this is always hidden, thus creating the third category. The official-unofficial policy rules are powerful and resort under the official policy rules. They are exercised by a network of individuals in or out of organisations and often known by all staff who communicate with the clientele by means of selective information dissemination and informal channels. The rules are often described as 'usual', based on connivance, sharing information from identifying 'clients' execution of 'missions'. This has created different layers of procedures and stages in planning but also planning policy action. Planning education in sub-Saharan Africa has not addressed these dynamic political and social processes of dispensation of services correctly. The innovation in this sphere is by no means 'noble' and will have to involve changing back to the official policy rules. The role of leadership is very significant in enabling innovation in this sphere, and education is critical in this much desired change.

4.6.1 Transparency in urban land administration and management

An important issue for sustainable urban development is land management which is broad and includes land administration (Arko-Adjei, De Jong, Zevenbergen & Tuladhar, 2010: 4-6). Acvts of land management include optimal utilisation of land, land-use planning, and maintaining environmental goods and services. Land administration is crucial for better communities, because planners are involved in the process of administration where they are required to give expert advice on synchronising with the spatial plans. This is one of the urban management components that is characterised and driven by informal rules of engagement. Transparency in land administration in the region is simply not practised and, if it is, the level is too low to create impacts for urban development and better communities (Goodfellow, 2010: 8-10). Although there are signs of successful interventions and development, the resources and negotiations that are involved absorb all and more of the costs of a non-transparent land administration system. Information on land is exclusive to a few individuals in networks from both within and without organisations. There has also been high-profile informalisation of land administration and management processes leading to often incompatible land-use

decisions. Innovation in this area is no doubt needed and requires the combination of professions, institutions and colloquiums. One of the advantages of transparent land administration is the unblocking of the land markets which would galvanise the urban economy, housing and construction sectors, thus affording considerable opportunities for the creation of employment, as indicated earlier.

4.7 The planning toolbox

The planning toolbox has for a long time remained a black box in the sense that it has been so technocratic. The planning toolbox includes components such as accurate data, equipment, the Acts, the models and principles. If unpacked, through education, the toolbox is changing but not at a speed to suit the strategic determination of planning information to focus on essential data as well as linking policy guides to policy action. Contemporary planning tools are dynamic and changing very rapidly (Mahavir, 2005; Lwasa, 2005: 1-2). In Uganda, for example, the toolbox has changed but there are still many areas for improvement in which innovations can be generated. The last three components have been touched on in the previous sections. The focus is on the first three components of the toolbox. In sub-Saharan Africa, the Acts were transplanted from the colonialists and have been evaluated as not being inclusive and sensitive to the needs of Africans. In addition, until recently the code of professional conduct and ethics has not been strengthened. For example, in Uganda the revision of the *Town and Country Planning Act 1964* into the new *Physical Planning Bill* is laudable and provides a platform for innovation (Uganda, 2008). One of the many innovations in the new bill is the response to the long-standing planning question of 'planning area boundary'. By including rural areas and implicitly the peri-urban, the bill provides a mandate to planning authorities to prepare plans for areas with a potential to explode outside the official planning area boundary as local physical development plans. This would, in conjunction with other factors, reduce the spill-over effects of planned areas as is the case concerning Kamala and Jinja Municipality in Uganda. In Kenya, the creation of the Nairobi Metropolitan Ministry in 2008 is a laudable effort in establishing formal structure to address the metropolitan growth of the city.

Planning education needs to quickly embrace these new changes from the public policy domain and prepare future planners to respond within such laws. The other two components, namely accurate data and equipment, are in urgent need of innovation. Working in partnership with other professions and disciplines, it is important to address the need for spatial information, techniques for plan formulation and design of planning information systems that would likely reduce the costs of planning information collection and analysis, as discussed earlier. The emergence of Global Navigation Satellite Systems (GNSS), Global Positioning Systems (GPS), Geographic Information Systems (GIS), Remote Sensing with associated systems of Spatial Data Infrastructure (SDI), web-based mapping, online planning are areas worth exposing to future planning professionals (Lwasa, 2005). These techniques and tools provide the means for quick accurate information which can aid rapid response to planning problems while helping to establish planning information systems. They also provide the powerful advantage of enabling community access to planning information, designs and neighbourhood conditions, thus reducing the burden on the part of planning authorities.

4.8 Beyond planning education innovation

Given the foregoing discourse, it is clear that planning is not only at crossroads but also in a dilemma which calls for a renaissance. However, it is known that there are several actors in planning, including educators, researchers, planners in practice, communities, policymakers, private companies and institutions. Therefore, innovation needs to be embraced by all actors at different levels. Planning innovation starts with all the actors. As noted earlier, the cost of inadequate or not planning is so high that we cannot afford to continue experiencing current urban development trends in sub-Saharan Africa. There are leaders, managers, private practitioners, civil society and individual developers. All individuals and institutions should innovate for sustainable urban development in sub-Saharan Africa. But a platform for the exchange of ideas, skills, knowledge and information is required, and the model of Local Urban Knowledge Arena (LUKA) by UN-habitat promises to provide the

space for the exchange of knowledge and ideas for innovation.

As indicated earlier, the cost of not planning is high and actually translates into that of not doing it. There are still many urban challenges in housing, poverty, public transport, urban environment, as well as social and environmental services. Urban governance has not yet redistributed power and decision-making for inclusiveness and responsiveness to societal needs. Given this situation, planning innovation is long overdue. There is a need to walk the talk on planning in sub-Saharan Africa, because deconstructing cities and urban areas is likely to be more costly than progressive and incremental urban development. However, such urban development is in dire need of innovation in the various spheres discussed in the earlier sections of this article. It is likely that, as long as planning innovation is not initiated, urban challenges will become even more serious than is being experienced. Planning innovation should start now and with everyone concerned with urban development. The triple helix model offers a good starting point since coupling was identified as having the potential to create multiple multiplier effects.

5.   CONCLUSION

In conclusion, spatial planning in sub-Saharan Africa is at crossroads and facing a considerable challenge as the demographic shift on the continent is making it more urbanised than previously. Planning innovation is necessary to change the current urban development trends and imprint, but such innovation will have to involve various stakeholders in various spheres. The key spheres that could have multiplier effects include planning education, planning research, planning information, and redefining community roles. For better communities in urban areas of Uganda, the planning profession should address the social needs and endeavour to harness the potentials of communities based on the realities of current development. This is the key for transforming urban communities in sub-Saharan Africa. The time for planning innovation in sub-Saharan Africa is past and in this context both the planning profession and other stakeholders should take the initiative and start now, because the cost of not adequately planning is high.

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