Managing city growth and development in the context of environmental changes within sub-Saharan Africa

Abstract

Africa's urbanization rate has steadily increased over the past three decades and is now faster than any region in the world. It is estimated that by 2030, over half of the African population will be living in urban areas but just in what form and nature is urbanization progressing and how prepared are city authorities and governments for this process? The urbanization process in Africa has been described as pseudo but evidence suggests that urbanization is progressing in countries where economic growth rates are also steadily increasing. Several drivers are responsible for the urbanization including; population dynamics, economic growth, legislative designation, increasing densities in rural trading but notably the mega cities such as Lagos, Cairo and Kinshasha expanding further. Although the urbanization presents opportunities in Sub-Saharan African 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 environmental management for disaster and risk reduction. In addition, the challenges pose sustainability concerns in social, economic, environmental and institutional contexts which require well designed impact pathways for urban development. This paper will attest to the process of city growth in Africa before giving pointers on how sustainable urban development can be achieved.

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Draft Paper

Introduction

Africa is the most urbanizing region in the world as the global demographic shift registers ½ of the population living in urban areas. At the same time African countries have chronically faced the challenge of managing urban development and still grapple with mobilizing financial resources, reforming urban governance, mobilizing communities, investing in urban infrastructure, sustaining the urban environment and providing the social services that would invoke growth of urban economies to tackle urban poverty. As Africa enters the urban 'age' with the projected world's shortest urbanizing period, it is also affected by the global environmental change and most markedly, climate change. Africa is the most vulnerable to climate change because of it's limited capacity for recovery and management of disasters. Africa is already experiencing extreme events in terms of climate variability and climate change impacts of droughts; flooding, violent storms and seal level rise have put many cities to risk and millions of African vulnerable. There are two sides of the challenge with an urbanizing region of Africa, first is the speed of urbanization which highest compared to other regions. Second is the vulnerability of urban areas to climate change impacts. These two sides pose serious challenges for managing growth and development of cities. Although the African giant cities of Lagos, Cairo and Kinshasa continue to rise rapidly, the smaller medium sized cities are growing even much faster. This paper examines the challenges of urbanization and management of this process in Africa focusing on sub-Saharan Africa. On the backdrop of the urbanization trends, the paper gives some pointers to the improvement in management of cities in the context of environmental and climate change.

Urbanization Trends in Africa

There is a growing realization of urban corridors in Africa, urban areas that along and connected to the economic arteries of agglomeration. At the same time, large cities are continuing to grow faster and this characterizes the urban spatial phenomena in Africa. Of importance are the Low Elevation Coastal Zones (LECZ) with over 3000 cities in this zone. This trend of urbanization is serving as a major logistic and economic integration driver in the region. Urban corridors are also now playing a significant role in unlocking the rural lands and guiding population away from the primate cities. There are some examples of the urban corridors most of which are sub-national including; the Cairo-Alexandria, Port Said, Ismailia and Suez; the Lagos-Ibadan in Nigeria. But some are also showing extension across national boundaries. For example; the Lagos-Ibadan, Cotonou-Lome-Accra while some are moving in that direction as the case for the Nairobi, Nakuru, Kisumu, Jinja Kampala corridor in East Africa. In terms of population size, there are about 112 cities with ½ a million inhabitants or more including 2 cities with over 10 million inhabitants. What is striking is that the proportion of the slum population in these cities is increasing exponentially. The largest proportions of slum population occur in sub-Saharan Africa with countries such as Sudan, Central African Republic, Chad, Angola and Guinea-Bissau having between 80-90% of their urban population in slums. The other trends in Africa's urbanization is the growing number of urban population without basic services such as water, sanitation and housing. Yet the slum population live in hazard prone areas including LECZ's, flood prone areas, landslide areas, seismic hazards and with high crime rates. These challenges are the focus of the next section sin this paper.

A brief history of Urbanization in Africa

Most cities in the North and West Africa have a long history connected to the colonialism characterized by different regimes. From the Roman colonialism to Arabic domination of the west and north to European colonization of the 17th Century. Whereas the sub-Saharan cities had contacts with the Arabic trade missions, colonization only became so during the 18th Century and by European countries. It is this history which gives a perspective from which heterogeneity in African cities exists but also explains the many similarities of African urbanization. In North Africa, most cities developed around water resource reservoirs an important factor due to the arid conditions in the region. Thus many cities are located along river systems and or coastal zones. Trade, commerce and linkages with other continents were the major factors in connecting the African population to other areas. In West Africa, cities have also grown from coastal zones linked to the early trade in slaves but also around education institutions as knowledge from Europe penetrated the region. While in East and Southern Africa colonialism played a major role through establishment of centers for collecting and marketing produce from the region. And as such, cities in Africa have grown as Laissez-Faire in which as observed by UN-Habitat, systemic policy failure has provided ground for the proliferation of informal cities. Other cities have been favored to grow and expand as primate cities while many show a blend of tradition and modernity as the case in North Africa. These scenarios were shaped by the transition to independence of many African countries.

But most striking was urban development that revolved around the legacy of controlling development with stringent laws that also segregated social groups during the colonial era. For a long time, urbanization was a measure of industrialization level, modernization and socio-economic development determined greatly how urban development investments were spread in different countries. However urbanization in Africa has occurred with no concurrent proportional changes in social transformation though there is limited research that correlates urbanization with modernization, industrialization and socio-economic development. What is being experienced in many African countries is rural-urban migration that has often averaged urban growth rates in different countries. There is also proliferation of small and intermediate urban centers. Of late the increasing balkanization in many African countries is also contributing to urbanization and this has happened in the last quarter of the 20th Century as policies such as SAPs, Liberalization and Decentralization were implemented across the continent. In addition is the trend of urban development that is characterized by private sector led development and or public policy as the case in North Africa by establishing ultra-modern neighborhoods and suburban town in places hitherto thought of as inhabitable. It is this nature of urbanization coupled with the climate change challenge that this paper attempts to provide some clues on innovative ways to manage city growth and management.

Urbanization in sub-Saharan Africa

Sub-Saharan Africa has experiencing urbanization characterized by exploding urban centers with steadily growing economies. Being centers of production, employment and innovation, cities and urban centers in sub-Saharan Africa expose this economic reality but with duality. Whereas

industrialization, service sector, infrastructure, communication and trade has grown, rapid urbanization characterized by disproportionality between population growth and economic transformation has had negative consequences including alarming and increasing incidence of poverty, urban sprawl, social services and infrastructure deficiencies. The negative consequences have subsequently led to deterioration of human settlements´ conditions, depletion of natural resources and pollution. The rapid growth of urban centers in sub-Saharan Africa represent the social and demographic changes that have been experienced during the century. The assumption that urban centers would open new opportunities for the sub-Saharan population in terms of new markets for the rural areas, industries for employment as a vehicle for diffusion of ideas and techniques to the rural areas(Obudho and Peter 2002), has remained elusive in many of the cities. What has happened is the growth of an 'emerging' economic sector that not only contributes to the national economy but also provides employment and livelihood for many urban dwellers. The nature of urbanization in sub-Saharan Africa has two dimensions; an increasing growth path that continuously presents urban management problems and sustainability challenges; second increasing vulnerability to environmental change especially climate change impacts. Sustainable urban development and management should be of high priority in sub-Saharan Africa. Since urban development is crucial to social transformation as engines of growth, urban centers need to be managed properly in order to enhance and promote regional development.

	Year	Total Population (millions)	Urban Population (millions)	Slum Population (millions)	Urban population growth rate (%)	Slum Population Growth rate (%)	Access to safe water (%)	Access to Improved Sanitation (%)
Country								
Uganda	1990	17	2	2	5	5		
	2001	24	2.8	2	5	5	72	16
Rwanda	1990	7	0	0	3	4		
	2001	8	0	0	3	4	60	37
Tanzania	1990	26	6	6	7	6		
	2001	36	12	11	7	6	80	18
Kenya	1990	24	6	4	6	6		
	2001	31	11	8	6	6	87	53
Zimbabwe	1990	10	3	0	4	3		
	2001	13	5	0	4	3	100	96
Democratic Republic of Congo	1990	37	10	5	4	4		
	2001	53	16	8	4	4	89	56

Table 6: Comparative statistics of access to urban services ins elected SSA countries
Source: UN_Habitat 2001 *http://hq.unhabitat.org/list.asp?typeid=44&catid=240*

Drivers of urbanization in sub-Saharan Africa

Several drivers explain the urbanization in sub-Saharan Africa. The drivers include both underlying and proximate factors. The underlying drivers of urbanization include population

dynamics of urban population growth and rural to urban migration. These factors are the most significant driving forces of urbanization. Through natural increase due to high fertility rates across the region, coupled internal migration and international migration (Nyakaana, Sengendo et al. 2004) the urban population has steadily grown in the last three decades faster than the pace at which urban services and housing are provided but also increasing the demand for services. The slum population has also grown exponentially and urban vulnerability on the increase. These phenomena emphasize the importance of the underlying factors of urbanization related to demographic dynamics.

One of the proximate factors for urbanization relates with policies for the economic transformation such as industrialization, which have been pursued for the last five decades. Sub-Saharan African cities continue to lay a major role as industrial and commercial centers in attracting increased population. As part of the market forces industrialization influenced by globalization has led to increase in consumption levels leading to establishment of numerous industries and commercial centers along the urban corridors. There has been proliferation of the 'emerging' economic sector which absorbs most of the economically active population. It is important to note that the growth of the emerging sector is not necessarily a problem due to its role in providing employment to many in urban areas and contribution to the national economies but the challenges of integrating such in spatial planning and development is more evident. Due to these factors, the expansion of urban areas is steadily advancing leading to engulfing of adjacent rural areas and other urban centers to form corridors. These changes have far reaching implications to environment and social well-being of the population and pose a challenge to sustainable urban development.

The other proximate driver for urbanization in some of the countries is the balkanization of administrative regions in which smaller districts have been curved out of larger districts. For example since 1986, the districts in Uganda have increased from 35 to 45 in 1998 to 56 in 2002 and currently 75. For each of the district, the headquarters is automatically gazetted as a town council which qualifies the population to become urban. Several of these towns rapidly expand outside their gazetted boundaries and with no control in such adjacent areas, social, environmental and economic problems set in more instantly. Unemployment, poor sanitation, inadequate social services and environmental degradation have become common features of urbanization in Uganda. The adaptive coping mechanisms of the urban population have included reliance on urban natural resources such as wetlands to provide alternative livelihood strategies (Nyakaana et al, 2004). The challenges however is the provision of adequate services such as schools, health facilities, environmental infrastructure such as drainage, water supply, sewerage networks, street lighting and security. In addition the political landscape associated with civil strife is also taking a toll on influencing urbanization from a regional perspective. The civil wars raging in the region are contributing to the displacement of large populations. For example the Rwanda genocide of 1994 displaced and made about a million Rwandese homeless. Other countries such as Central African republic, Democratic Republic of Congo, Uganda, Zimbabwe, Kenya have experienced civil strife that leads to urbanization.

The role of the Private sector can also not be underestimated in influencing urbanization. Associated with the national economic rehabilitation and development strategies, the private sector through establishment of industries, housing estates, higher education institutions and

commercial agricultural entities is greatly contributing to the expansion of urban areas. There is increasing establishment of multi-national companies that operate beyond the national boundaries. The real estate sector has steadily grown and driving the urban sprawl in the region that contributes to the urban corridors. While real estate business is establishing ultramodern residential neighborhoods, it develops amidst impoverished peri-urban and rural settings. The growth of the private sector has influenced labor migrations into urban areas as rural populations search for employment accelerating the housing sector development and proliferation of the urban informal sector but with limited access to social services. The numerous medium to small-scale industries are involved in food processing, metal fabrication wood works, wine and soft drinks making. These industries are contributing to the migration into the city for employment search, which also involves absorption of externalized fertility from rural areas. They are contributing to direct and indirect employment. On the other hand, the planned employment opportunities are too few to absorb the labor and coupled with increasing population, this creates an influx of laborers. This influences migrations directly or indirectly, direct in the context of opportunities to work in the industry and indirect in terms of opportunities in trading in products and linkages with other economic activities. This poses sustainability questions in the context of employment creation. Sub-Saharan Africa appears not well prepared to deal with higher rates of urbanization.

Sustainable Urban development

Since the Brundtland report of 1987, the concept of sustainable development has attracted considerable debate which is reflected in the vast amount of international literature on its interpretation and feasibility (Enyedi 2003). According to the report, sustainable development is "to ensure that development meets the needs of the present without compromising the ability of future generations to meet their own needs". From this view point, several definitions have emerged and raised the difficulty to assess the needs of future generations and that the conflict arising between the protection of the biosphere and the continuous demand for growth seems not resolvable. Debate has increasingly drawn attention to the *societal* conflicts of the environmental sustainability. With urbanization, the intertwining of societal and environmental conflicts is evident in cities(IHDP 2005; IDRC 2006). In the developing world, the environmental considerations are continuously challenged because they have not been coupled with an efficient programme of easing urban poverty. Improvement in the urban infrastructure, education and the health care service, housing, transportation and communication cannot be done without giving equal rights to the poor and the other disadvantaged social groups, and without recognizing their organizations(Enyedi 2003). In other words no environmental policy can be efficient without a social policy.

Recognizing that sustainable development is multi-dimensional in nature encompassing social, economic and environment sustainability, sustainable urban development can be looked as encompassing six areas of (1) governance, (2) social and cultural considerations, (3) social infrastructure and public services, (4) urban land use and housing issues, (5) urban transport and urban natural resource management, and (6) employment and the enhancing of economic growth. These six areas form the framework for understanding the sustainability of urban development but also giving pointers on how to achieve sustainable urban development. Evaluating how the

sustainability of urban development requires robust but flexible methodologies and formulation of indicators along which the six areas would be assessed in understanding the nature of urban development. With the current urbanization trends, urban sustainability remains a challenge due to spontaneous developments, peri-urban developments, urban environmental change, land-use change and industrialization (Enyedi 2003). This is because environmental burdens intertwine with poverty in a concomitant and reinforcing manner (IDRC 2006). In sub-Saharan Africa, research into these challenges has intensified and scaled up to the national level (Lwasa 1999; NEMA 2000/01; UBOS 2002). Due to the increasing complexity and interactions at all scales of urban development the need for a connection of research and policy in this area has become more pronounced. The subsequent sections of the paper will now focus on social services and infrastructure issues in urban management and how the provision of these services relates with environmental and social sustainability.

Urban Management Experiences

Urban development in sub-Saharan Africa is experiencing changes in nature and direction. Currently urban development is guided by colonial laws though some of them were revised. In the case of Uganda, Kenya and Tanzania, the Town and Country Planning Act defines the procedure for declaring an area as a planning area, the process for formulating spatial schemes as a framework for urban service provision. While the Public Health related Acts details the building standards and requirements. Whereas these legislations are focused on spatial development, recent laws such as the Local Government Act in Uganda focus on the urban-wide scale provision of services such as street lighting, solid waste management, environmental management, infrastructure development and governance. These laws are also complimented by other laws for environmental management, water resources management and wetland management among others. Gazetted towns have the liberty to make ordinances which translate the rules and regulation concerning specific urban management issues. These are developed to implement the laws and or address the challenging issues which have emerged. For example Kampala City Council passed in 2005 five ordinances on Urban Agriculture which for a long time has been contested in lieu of the Urban Authorities Act (which was repealed but strictly illegalized any form of farming expect for planting flowers and keeping pet animals).

Implementing the laws and regulations in urban management has largely been pursued through two approaches; the project-based approach and the sector-wide approach. The project-based approach is the most common in sub-Saharan Africa while the sector-wide approach has only recently been introduced at National Levels. One of the disadvantage of the project-based approach is projectization with no follow up to complete the cycle which has left some communities unserviced compared to the pilot communities. But the urban services and infrastructure developed in piloted communities become unsustainable in relatively short time periods. At the national level, urban development has not proceeded in a balanced way. Some regions benefit in substantial infrastructure development in terms of transportation and communication, socio-physical and environmental infrastructure as well as social services while others lose. For the case of Uganda and reference to Kampala, the World Bank has injected over $ 10 millions over the last ten years on solid waste management, drainage, spatial planning and building capacity for managing the city. While Kampala received these resources, other major towns remained under funded by the Central Government which explains the unbalanced levels

of development compared to Kampala. But the services and infrastructure development has not corresponded to the 4.9% annual growth rate of the city living service gaps and accentuating urban poverty which was also observed by (UBOS and ILRI 2004) in which 16% of Kampala's population is under the poverty line. As indicated in the table 7, there is a huge variation between the major urban authorities in terms of budget expenditure on urban services in the period 2006-2007. This is because of the population but also the priority investment projects. Roads, construction of school class rooms and drainage take the largest share in all cases. But despite these investments, deplorable conditions exist among urban population sections in these urban centers.

City	Population	Expenditure 2006/2007 on services	Equivalent in dollars
Mbarara	69,208	773,481,473	465,953
Mbale	70,437	374,413,801	225,550
Kampala	1,189,142	35,867,679,200	21,607,036
Jinja	86,520	561,549,044	338,283

Table 7: Summary of Expenditure of on urban services 2006/2007 by major Urban centers in Uganda

The Sector-wide approach has been pursued at national level realizing the need for guidance of urban development and ensuring sustainable national development. Among the several sector-wide programs is the Land Sector Strategic Program which has been developed in some of the sub-Saharan Africa that recognized the need for land use planning at national level and especially managing urbanization. The other sector-wide programs have all embraced the principles of sustainability to ensure a participatory identification of solutions to the social and environmental conflicts. In Uganda for example, three national development policy initiatives are underway; the National Land Use Policy, The National Land Use Plan and the National Land Policy. The National Land Use Policy has been approved by Cabinet while the other two are in draft form and the stage of consultation. But all the three recognize the importance of sustainable urban development.

Decentralization Policy and City Management

Although an effective urbanization policy is one of the several instruments to guide development in many sub-Saharan countries, such has not in place to guarantee an orderly and sustainable urban development. The current Local Governments Act in Uganda has succeeded in the devolution of powers to local governments for effective planning, implementation of plans and delivery of services to the urban populations. Analysis of its effectiveness indicates, it has fallen short of its requirements for sustainable urban development. But since its implementation in 1993, it is also possible that its still in the gestation period. So rather than focus on its effectiveness, it is important that focus is placed on the challenges of the urban development in effective and efficient provision of urban service provision, governance and infrastructure development. These are key issues of urban development, because of their influences on the economic, social development and environmental status of an urban area. Social and economic development needs a spatial framework but decentralization has led to competitive allocation of

resources with little consideration of spatial development of the city. One of the key consequence of this is marginalization of large sections of the urban population leading to polarization.

Urban Health Service Provision

Urban health in sub-Saharan countries has been compromised by the nature of urban development due to increased exposure of dwellers to health risks. For example the urban environment in Uganda characterized by informal settlements with inadequate infrastructure, sanitation facilities is permissive of disease outbreaks(Rugadya 2006). Despite huge investments in urban infrastructure, pockets of poverty 'hotspots' are spread around the country in the urban areas. In these 'hotspot' areas, inadequacy of urban services and infrastructure is evident leading to accumulation of wastes, flooding and poor sanitation(ILRI and CBS 2002). Drainage channels are also open sewers that run through the neighborhoods, scattering organic and inorganic wastes that contaminate water sources when they overflow during the rainy season. For example in Kampala, cholera outbreaks have occurred every year since 1997 with the most recent between October 30th to Mid-January 2007 that registered 634 cases with 9 deaths. In regard to service provision and access, planning has been decentralized to sub-county level but is still requiring. For example in a Kampala study on health service provision, the proliferation of private clinics has shifted service provision from the public health facilities to private sector. Although the private sector has it merits including availability of drugs, physician, they also have a problem of acting as conduits for inappropriate treatment, lack of professionals and expired drugs. Although statistics indicates that urban populations have access to health services within 5 km from their residence, the quality of services provided is low. The shift to predominance of private sector implies less control over the quality of services provided by authorities making urban populations vulnerable but providing the much needed services.

Urban Education Services

Under the decentralization policies, education service provision is also a responsibility of the municipalities/city in regard to planning, resource allocation, human resource and well as supervisory roles. Once again the privatization of the education services has ushered in private educational institutions. Education is categorized as Pre-primary, primary, Secondary, Vocational and tertiary education. Pre-primary is a sole responsibility of the private sector and only guided by national guidance system, primary is Universal but the number of Universal Primary Education is superseded by the privately owned institutions. Universal Secondary Education has also just started at the beginning of 2007 on a pilot basis and yet to be rolled out in the subsequent financial years. Vocational education is largely provided by the Central Government through the Ministry of Education while Tertiary education is largely private with a few public Universities. According to the Ministry of Education, 56.7% of the education facilities are provided by Government including Local governments such as municipalities and City while 34.7% by the private sector. This distribution is likely to increase with introduction of Universal Secondary Education because parents prefer private

Urban Transportation Services

Public transportation planning in Uganda is a responsibility of the Ministry of Works and Communication Technology but the municipalities having the responsibility for the provision of public transport services (Mukwaya 2001). Like other public services, the decentralization policy passed on supervisory responsibilities to the Local Governments which engage the private sector to directly provide services on their behalf. The idea is to reduce on costs of the local government/municipality to directly provide the service. Public transport provision is dominated by minibuses of 14 seating capacity and coupled with the mean growth rate of cars by 10.9%, traffic congestion is a common feature of urban transportation especially in Kampala. With energy consumption rate of 0.00012 ton/vec.km, the demand for energy for public transport sector is ever increasing as urban development accelerates. According to (UBOS 2002), the total energy demand for Kampala region is estimated at 33.12 million gigajoules (mgj) and this is expected to increase to 81.8 mgj in 2010. With this level of energy use, the toll is on the environment through GHG emissions. Due to the type of public transport and the huge energy demand, the sector is largely inefficient and unsustainable. (Mukwaya 2005) notes that the performance of the transportation sector to users in terms of costs, travel time and level of choice is rated lowly while a detailed zonal analysis of GHG emissions based on intensity of urban development reveals that CO_2 emission range from 0.11 kg CO_2/litre to 3.54 kg CO_2/litre of diesel(Mukwaya 2001; Mukwaya 2005). This raises sustainability questions and the need for revisiting the public urban transportation sector for managing of city growth and development.

Urban Water and Sanitation Services

In sub-Saharan Africa, improved drinking water access has risen to up to 54% by 2006 while sanitation access has improved to 29% by 2006. Although these figures show improvement, the challenge is that cities are growing faster than the services are provided. This calls for innovative ways of managing urban water and sanitation. In the case of Uganda urban water service is a responsibility of National Water and Sewerage Corporation (NWSC). The NWSC is a public Corporation wholly owned by the Government of Uganda. The principal business of the Corporation as defined in the National Water and Sewerage Corporation Act is to operate and provide water and sewerage services in areas entrusted to it under the Water Act. The National Water and Sewerage Corporation effectively operates in seventeen towns namely: Kampala (including Kajjansi and Nansana), Jinja/Njeru, Entebbe, Tororo, Mbale, Masaka, Mbarara, Gulu, Lira, FortPortal, Kasese, Kabale, Arua, Bushenyi/Isahaka, Soroti, Mukono and Malaba. Final preparations are underway to take over Iganga and Lugazi towns. This will bring the towns under NWSC jurisdiction to 19. Despite its existence for 33 years and concentration on urban centers, 67% of the population in Kampala is served with water. Though this has increased over time, the remainder is largely the urban poor and residents of the peri-urban fringe.

Urban Waste Management

Like water and sanitation, solid waste management in sub-Saharan Africa remains one of the most daunting challenges. There is considerable literature on solid waste management, innovation and alternative technologies to improve the situation. But in many cities the improvement is slim. In the case of Uganda, until recently in 2002, solid waste collection, transportation and disposal has been the responsibility of the municipal authorities. Under the Local Government Act 1997, its one of the services listed as the mandated role of urban

authorities. The current practices have separated roles in the Solid Waste Management Model (SWM). For example Kampala City Council passed a revised Solid Waste management Ordinances in 2002, in which the principle of 'generator pays' was established and the basis of the current solid waste management systems. Many other municipalities are revising or considering revision of the municipal ordinances to pursue the 'generator pays' principle. The solid waste ordinances led to privatization of garbage collection and this was coupled with the private-sector led development policy which supports procurement of services from private organizations by the local governments. Due to privatization as observed by (Rugadya 2006) refuse collection coverage in one of the municipal Division increased from 10% to 80% in the division, while the unit cost of collection reduce from Uganda shillings 11,300/m^3 to 4,500/m^3 (US\$8/m^3 to US\$3/m^3). An estimated 20 – 30% of the population is served with the solid waste management services in Kampala(UBOS 2002). There are several private garbage collectors that provide a door-to-door solid waste collection service at a fee ranging from between Uganda shillings 20,000-30,000 (US\$12-20) per month for a bi-weekly service. For the urban poor settlements, city council subsidizes due to the levels of poverty. Clustered household method which enables group contribution to the monthly fee is being tried out by the private collectors.

Urban Sustainability

Urban sustainability as indicated earlier embodies several thematic areas which should be the focus of urban development. These areas also fit very well with the Millennium Development Goals and if pursued could help sub-Saharan Africa achieve these goals. But given the current urban development experiences, sustainable urban development needs to be stepped up. This is because of the following; increasing social polarization of urban communities, environmental degradation and increasing burdens (sanitation, flooding, wastes accumulation, public health, and disasters) to large proportions of the urban populations, regional imbalances in urban development and the challenge of labor migrations to the central region. Urban sustainability challenges are summarized below;

- Increase in urban population, industrialization and the associated demand for housing have ushered in a processes of land use/cover changes in the urban areas in Uganda.
- The nature of urban expansion and extension around major urban areas is putting pressure on peri-urban areas with social and environmental consequences.
- Natural disasters in urban areas are also increasing with the nature of urban growth and expansion. Flooding in Kampala for example has become usual phenomenon even when slight down pours occur in the city affecting economic productivity and livelihood of the people, health, housing and accessibility to the neighborhoods.

Urban Planning and Management innovation

To respond to the urban challenge in sub-Saharan Africa, there is need to re-think urban planning and management approaches. There is considerable literature on ways of improving urban management but the gaps between these approaches and the experiences are big. In this paper, urban planning and management innovation is proposed with the hope that it can offer opportunities for galvanizing urban economies, improve social and physical infrastructure but

also reform the current urban governance system in sub-Saharan Africa. The concept innovation has been defined differently by different people(Bennett 2003). This is because it's not only a catch phrase but has become a buzz word in quest for solutions to the unresolved questions and problems in various fields. Innovating has been known in natural science and business as creating or finding something new in a particular context. This paper attempts to provide an understanding of the concept of innovation as a launch pad for the subsequent sections of the paper. In the context of this paper, "*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*". This planning innovation would require debunking various aspects among which is the planning colloquium. Such innovative planning would have to consider using the debunking of the 'business analogy' as observed by (McGill 1988) in which he explains the operations of commercial businesses, their targets and means to achieve those targets. One needs to understand the process theory of business in this case commercially oriented business. The substantive issues of commercial business and the linkage between the business entities with the targeted market population. In the context of spatial planning, the substantive issues are known and so are the contemporary procedures with some unclear issues but the relations with action are still grey in Uganda. Planning innovation for better communities will have to emerge largely from SSA where different actors in urban development would need a platform for exchange of ideas, knowledge and skills for developing strategizing on how to ignite the much needed social change for sustainable and inclusive urban development. The areas of innovation include; planning education, innovative planning research, moving from projects to programs and policy, considering the societal costs of unsustainable urban development, redefining community roles and institutional reforms.

Conclusion

In conclusion, despite potentials for realizing sustainable urban development, it remains eluding Sub Saharan Africa in general. Social sustainability of urban areas would require adequate and cross-sectional distribution of urban services to ensure accessibility and improve the conditions of many urban dwellers. Although the rate of urbanization is low in Uganda, the challenges posed by the urban growth and expansion to sustainability are by far daunting given the current experiences of populations with inadequate access to urban services including water supply, sanitation, education and health while inadequate infrastructure such as drainage systems, roads are exposing urban populations to environmental burdens. The consequence of the conditions is increasing urban poverty and urbanization of poverty. The intertwining of urban poverty and environmental challenges call for innovative research into alternative urban development approaches and policy. This will require a concerted effort that should bring together researchers, policy actors, communities and governments to address the challenges.

References

Enyedi, G. (2003). The social sustainability of large cities. International Conference on Social Science and Social Policy in the 21st Century, Vienna, ISSC.

IBRD (1994). The human face of the urban environment; A report to the development committee, environmentally sustainable development. Washington DC, USA, World Bank.

IDRC (2006). Urban Poverty and Environment (UPE) Program. Linking environmental management, natural resource use, and urban poverty. Ottawa, IDRC. **2006**.

IHDP (2005). Human Dimensions of Global Environmental Change. Bonn, IHDP.

ILRI and CBS (2002). Mapping Poverty in Kenya and Uganda'. Nairobi, ILRI.

Leo, H. (1999). "Who really benefits from environmental sanitation services in the cities? An Intra-urban analysis in Betim, Brazil." Journal of Environment and Urbanization **11**(1).

Lwasa, S. (1999). Environmental Crisis in communities of the urban poor in Kampala. OSSREA National workshop, Makerere University, Kampala.

Matagi, S. V. (2001). "Some Issues of Environmental Concerns in Kampala the Capital City of Uganda." Environmental Monitoring and Assessment **77**: 121–138.

Mukwaya, P. (2001). Urban Sprawl and Challenges of Public Transporta Services delivery in Kampala - Uganda. Institute of Geography. Trondheim, Norwegian University of Science and Technology**:** 152.

Mukwaya, P. (2005). Can City Form be harnessed to reduce Transport Energy Use? Solutions to Greenhouse Gas (GHG) Emissions Problems in Kampala City Region. START Fellowships. Kampala**:** 65.

NEMA (2000/01). State of the Environment Report for Uganda. Kampala.

NEMA (2002). State of the Environment Report. Kampala.

Norstrand, J. v., M. O. L. H. a. U. Development, et al. (1994). Kampala Urban Study Final Report; Structure Plan: Part II. Kampala, KCC**:** 245.

Nyakaana, J. B., H. Sengendo, et al. (2004). Urban Development, Population and the Environment in Uganda: The Case of Kampala City and its Environs. Kampala.

Obudho, R. A. and J. Peter (2002). The Role of Urbanization and Sub-urbanization Processes in Urban Land management Practice in East Africa. Urban land Management in Africa. O. H. Washington, Volker Kreibich. Dortmund, Spring Center. **40:** 379.

Rugadya, M. A. (2006). SITUATION ANALYSIS REPORT AND ACTION PLAN FOR KAMPALA CITY COUNCIL: Kagugube 1 and Mbuya 1Parishes. CITIES WITHOUT SLUMS SUB-REGIONAL PROGRAMME FOR EASTERN AND SOUTHERN AFRICA. Kampala, Kampala City Council**:** 71.

UBOS (2002). Uganda Population and Housing Census. Kampala, Uganda Bureau of Statistics.

UBOS (2003). A Report on the Uganda Business Register, 2001/2002. Entebbe, Uganda Bureau of Statistics**:** 67.

UBOS and ILRI (2004). Where are the Poor?
Mapping Patterns of Well-Being in Uganda: 1992 and 1999. Nairobi, Uganda Bureau of Statistics
International Livestock Research Institute**:** 86.

UBOS, U. B. o. S. (2002). 2002 Uganda Population and Housing Census. Entebbe, National Census Office**:** 12.

UIA (2005). List of Lisenced Industries in Kampala. U. I. Authority. Kampala.