NATURE AND CHALLENGES OF URBAN GREEN SPACES IN AFRICA

By

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Date: 2nd July, 2014
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Introduction

- Globally, urban areas are fastest growing land cover type with substantial portions of various continent classified as urban (UN, 2012)

Figure 1: A map showing the distribution of the world’s urban land coverage
Introduction continued

• Unprecedented landmark of over 50% of the world population living in urban areas since 2008.

• Urban development pressures impacting negatively on the natural environment such as urban green spaces (Niemelä et al. 2010; Williams et al. 2009).

• Urban green spaces cover all natural and semi-natural spaces in urban areas primarily covered by vegetation which are available for human usage (Wolch et al., 2014; Baycan-Levent et al., 2009).

• Evidence of declining green spaces in many cities in Europe, North America, South America, Asia and Africa with the situation of Africa being critical (Chen, 2014; McDonald et al., 2010; Fuller & Gaston, 2009)
Introduction continued

• Less than 10% coverage of green spaces in the land area of many urban areas in Nigeria, Egypt, Ghana, Rwanda, Somalia, South Africa etc. (Adjei Mensah, 2014; MaConnachie et al., 2008)

• Per capita green space of some African cities such as Alexandria (Egypt), Luanda (Angola) and Cairo (Egypt) fall below 1m² (The African Green city index, 2011).

• Knowledge gap of lack of comprehensive assessment of challenges or factors behind deteriorating condition of urban green spaces in Africa.

• It is to bridge this gap that this presentation was put up to broadly discuss the nature and challenges of urban green spaces in Africa.
Theoretical Perspective

• Strong biblical support (Gen 2:8,15; Quran)
• Frederick Law Olmsted refers urban trees (green spaces) as “the lungs of a city” (Jennings et al., 2012)
• Urban utopian concepts supported integration of green spaces into urban landscape.
  - Eg. Charles Fourier’s fantasy villages “phalansteries”,
  - Ernest Callebach’s novel “Ecotopia”,
  - Le Corbusier’s “La ville verte” (the green city) and
  - **Garden city model** by Ebenezer Howard (Stahle, 2010; Baycan-Levent et al., 2009)

Figure 2: Ebenezer Howard’s three magnet
Source: Ebenezer Howard (1902)
Theoretical Perspective cont.

Figure 3: The garden city land structure
Source: Ebenezer Howard (1902)

- Green spaces embedded in different sustainable urban development concepts such as compact city, smart growth, green urbanism and Biophilic cities.
Theoretical Perspective cont.

• Conceptualisation of green spaces in urban landscape

Source: Swanwick et al. (2003)
Theoretical Perspective cont.

• The tripartite contributions of urban green spaces.

Environmental cont.
- Ameliorate climate
- Improve air quality
- Conserve biodiversity
- Stabilize soil
- Beautify urban design

Economic contribution
- Attraction of business
- Job opportunities
- Increase property values
- Increase government Revenue
- High tourism value

Social contribution
- Recreation/amenity
- Child development
- Health benefits
- Research/education
- Culture/national heritage
- Social interaction/cohesion

Urban Green Spaces
Methodology

• Systematic review approach was adopted (Victor, 2008; Akobeng, 2005).
  - use of explicit process to search, appraise and synthesize secondary data to achieve a given purpose.

• Broad, robust and comprehensive in nature (Khan et al., 2003)

• Avoid bias and provide reliable and more accurate conclusions (Coren & Fisher, 2006)

• Process used for the study:
  - Identification of publications to be included in the study.
  - Publications on African continent.
  - Focus on nature and challenges of green spaces
  - Synthesize the results
Nature of Urban Green Spaces in Africa

• Forms on urban green spaces in Africa include the following Fuwape and Onyekwelu (2011):

  ❖ Semi-private space such as green space in residential, institutional and industrial areas;
  ❖ Designated parks, street trees and roadside plantations;
  ❖ Public green areas such as green parks, botanical gardens, recreational gardens, outdoor play areas etc.
  ❖ Public and private tree plantations on vacant lots, green belts, woodlands and peri-urban farming;
  ❖ Rangeland and forests close to urban areas;
  ❖ Natural forest under urban influence such as nature reserves, national parks, and forests for eco-tourism; and
  ❖ Trees planted for environmental protection and beautification
Nature of Urban Green Spaces in Africa cont.

• Much emphasis on urban trees. In 2010 about 62,500 trees planted in Durban, 500,000 trees in Lagos, 2800 trees in Maputo and 30,000 trees in Mombasa (African Green city Index, 2011; UN 2012)

• *Plant for the Planet: Billion tree campaign* by UNEP since 2006
Nature of Urban Green Spaces in Africa cont.

Casablanca (Morocco)  
Nairobi (Kenya)

Johannesburg (South Africa)
Nature of Urban Green Spaces in Africa cont.

- Distribution of urban green spaces concentrate in Sub-Saharan Africa
  - Vegetation or ecological zones
  - Climatic conditions
Nature of Urban Green Spaces in Africa cont.

- Countries of North Africa such as Algeria, Libya, Egypt, Morocco have limited green spaces.

Comparatively, countries in Sub Saharan Africa have much green spaces. Example, Ghana, Nigeria, DR Congo, Tanzania, Kenya tec.
Challenges of Urban Green Spaces in Africa

1. Pressure of urbanisation

Urban population growth of Africa (%)

Source: The state of African Cities 2014 by UN-Habitat
Pressure of urbanisation

• High rate of urban sprawl and informal settlements destroying green vegetation
  - Reduction in green vegetation from 21% to 12.9% in Abuja due to urban sprawl (Fenan et al., 2011)
  - Massive destruction of urban trees in Addis Ababa (Dubbale et al., 2010)
  - Encroachment of over 3000 ha of Karura forest (Nairobi) (Fiends of Karura forest, 2013; Klopp, 2012)
  - Urban sprawl causing rapid loss of many urban green spaces in Cairo and other urban centres in Egypt (Salama, 2012)
Pressure of urbanisation cont.

Kibera (Nairobi) Kenya

Katutura (Windhoek), Namibia
Challenges of Urban Green Spaces in Africa cont.

2. Insufficient Operation of Urban Planning Regulations

• Dysfunctional nature of urban planning regulations
  - Operation of old planning regulations – 1945 and 1948 town planning act of Ghana and Malawi respectively (Awuah et al., 2010)
  - Over reliance on master plans – 1968 master plan of Lusaka (Zambia)

• Poor enforcement of development controls
  - Lack of political will - Beautification projects halted in Addis Ababa (Mpofu, 2013)
  - Institutional inefficiencies (financial constraints, low staff strength, lack of logistics, bureaucracies, corruption, political interference and embezzlement of funds).
    - Poor maintenance of urban parks and other green spaces.

- Evidence of institutional inefficiencies in Kumasi (Ghana), Abidjan (Cote d’Ivoire) and Harare (Zimbabwe) (Adjei Mensah, 2014; Djibril et al., 2012)
Example of poor enforcement of development controls

Delineated park on planning scheme not implemented in Kumasi (Ghana)
Source: Adjei Mensah (2014)
Challenges of Urban Green Spaces in Africa cont.

3. Socio-economic and political challenges

• Poverty (High urban poverty)
  - Over reliance on natural environment to support livelihood (Cilliers et al., 2012)

• Lack of priority to green spaces in development agenda
  - Emphasis on brown agenda than green agenda in many African cities (Bolnick et al., 2006)
  - Evidence of low priority to green spaces in Tanzania (Lugoe, 2008)

• Uncooperative attitudes of local people
  - Poor community participation (e.g. Benin, Zambia) (Muhumuza & Balkwill, 2013)
  - Indiscriminate destruction of green spaces by local people
Uncooperative attitudes of local people

Market park in Kisumu (Kenya)  Fante Newtown Park in Kumasi (Ghana)
Socio-economic and political challenges

- Political instability (wars) –
  - Liberia, Sudan, Somalia, Rwanda, Angola, DR. Congo etc.
  - 70 per cent loss of the Akagera National Park (Rwanda) through civil war (Plumptre et al., 2001)
  - Over 70% of natural vegetation destroyed during Liberian civil war.

Mogadishu (Somalia)
Hope for the future

Johannesburg Botanical Gardens

Belvedere Park in Tunis
Hope for Al-Azhar Park in Cairo

Millennium Park in Abuja
Policy implications and the way forward

- **Prioritizing green spaces**
  - Green space plan/strategy; utilise brownfield sites

- **Stable financial support for green space**
  - Budgetary allocations
  - Income generating activities

- **Regular maintenance works**
  - Evaluation of the state of green spaces

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**Model to assess the state of green spaces**

Source: Author’s construct, 2014
Policy implications and the way forward cont.

- **Enforcement of development controls**
  - Upgrade old development plans
  - Prevent encroachments of green spaces

- **Strong Institutional support**
  - Human resource, logistics and funds

- **Collaborative governance**
  - Engage the services of different Stakeholders (Gov’t agencies, civil society, private sector, NGOs, donor agencies etc.)
Let's join hands together to preserve urban green spaces to benefit both current and future generations.

Thanks for your attention