



Urban environmental problems in Ghana



Patrick Brandful Cobbinah^{a,b,*}, Michael Poku-Boansi^a, Charles Peprah^a

^a Department of Planning, College of Art and Built Environment, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

^b Institute for Land Water and Society, Charles Sturt University, PO Box 789 Albury, 2640 New South Wales, Australia

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ABSTRACT

In this era of rationalism, ‘good’ urban planning and management decisions are deemed to be those that are able to identify a tangible balance of environmental benefits (i.e., safeguarding environmental resources such as nature reserves and open spaces, and health) and socio-economic development, with little or no negative implications for urban sustainability. Yet, research indicates that urban Ghana is faced with rapid depletion of environmental resources amidst burgeoning urbanisation and climate change. Based on a review of relevant and related literature, this paper explores the implications of this dilemma for the future of urban Ghana. It examines the environmental problems confronting urban Ghana by: (i) analysing the factors that predispose urban Ghana to environmental threats; (ii) understanding the influence of human-induced activities and natural occurrences on urban environmental resources; (iii) discussing environmental protection in terms of sustainable urban development in Ghana; and (iv) presenting policy implications of the environmental problems in Ghana. Findings indicate that high demographics, defunct planning system, and rising poverty predispose environmental depletion in urban Ghana. Anthropogenic actions (e.g., pollution, poverty, and urban growth) and natural events (e.g., flooding, drought, and windstorms) have negatively changed the geography of the urban environment. This paper advocates the adoption and implementation of the values (e.g., inclusiveness, equity, pro-poor) of the sustainable urban development concept.

1. Introduction

In recent years, the world, particularly the global south, has become increasingly aware of the huge risks that environmental problems pose to the functionality of urban areas. These risks include challenges (e.g., air pollution, pollution of water resources, poor waste management, and degradation of green areas) that threaten the sustainability of urban environmental resources such as open spaces, nature reserves, flood plains, water resources and public parks. Environmental problems, amidst climate change and rapid urbanisation, are likely to continue to contribute to drought and heatwaves, more intense rainstorms and flash floods, and rising temperatures. They also pose particular threats to urban infrastructure, especially soft infrastructure in urban Africa. To name just a few, these include increased pressure on public open spaces, higher risk of depletion of natural areas, destruction of buffer zones of water resources and increased need for emergency management and relief services (Korah and Cobbinah, 2016; Mpofu, 2013; Quagraine, 2011; World Health Organisation [WHO], 2013). Furthermore, there are recent reports of how environmental problems have cost lives and destroyed urban communities across developing countries. The recent deadly flood event in Accra (Ghana) resulting from human negligence and occupation in waterways and poor sanitation (Cobbinah and Darkwah, 2016a), the outdoor pollution deaths recorded in Chinese cities (Vaughan, 2016), and poor waste management death cases in Zimbabwean cities and

* Corresponding author at: Department of Planning, College of Art and Built Environment, Kwame Nkrumah University of Science and Technology, Ghana.
E-mail addresses: pcobbinah@csu.edu.au (P.B. Cobbinah), poku-boansi@gmail.com (M. Poku-Boansi), cpeprah.cap@knust.edu.gh (C. Peprah).

towns (Kunambura, 2016) are just a few among many tragic cases across developing countries. Importantly, the issue at stake is not the impacts of environmental problems alone but a whole spectrum of local, regional and global factors that interplay to create uncertainties in the urbanising world, and the resulting risks that human settlements and humanity in general may face (Cobbinah et al., 2015; Quagraine, 2011). It is clear that, in order to reduce the risks and impacts of urban environmental threats and to increase the safety and wellbeing of urbanites in developing countries, urban areas must be prepared to address the environmental problems head-on. If they are not, urban areas will experience constant and severe threats, and more and more will become vulnerable to the risks of environmental problems (Kunambura, 2016; Vaughan, 2016; WHO, 2013).

The critical question is, how are urban areas dealing with the threats of environmental problems in this era of rapid urbanisation and climate change, and do they understand the multiplicity and interdependency of factors that generate an uncertain future state? Most importantly, what should urban areas do, at present, in order to move from environmental vulnerability to a more adaptable position? Moreover, since human actions contribute considerably to environmental problems worldwide (Cobbinah and Korah, 2015; Cobbinah et al., 2015; Tzoulas et al., 2007), how sustainable should urban areas be in order to contribute to environmental resource conservation? Although a literature review reveals an important emerging scholarship on environmental problems in developing countries of Africa, most studies on the subject are either too general and broad (e.g., Mabogunje, 1995; Mensah, 2014) or too narrow (e.g., Mpofo, 2013), and fail to provide a discussion on the issue of environmental problems in an urban context at the national level. Therefore, using urban Ghana as a case study, this paper aims to fill this gap, and answers critical questions regarding what urban areas should do in order to move towards a more healthy environmental future state.

2. Data collection and methods

This analysis is based on a review of relevant, related, and available literature on urban environmental problems in Africa with particular emphasis on Ghana. Data for this research were obtained from two major sources: existing literature, and policy documents and reports of international and national organisations on urban environmental problems. Existing literature (e.g. Cobbinah and Korah, 2015; Kunambura, 2016; Mabogunje, 1995; Mensah, 2014; Mpofo, 2013; Tzoulas et al., 2007; Vaughan, 2016; etc.) provided an important background, and current state of urban environmental problems in Africa particularly Ghana and the consequences thereof. Various concepts (e.g. urban planning, urbanisation, environmental challenges, environmental resources, etc.) relating to urban environmental problems were used in carrying out the web search in major electronic databases such as Academic search complete, Scopus database, SAGE Journals online, JSTOR, and CABI, in addition to catalogs from the Australian Library. Access to these was secured using the resources of the Charles Sturt University, Australia and the Kwame Nkrumah University of Science and Technology, Ghana.

Policy documents and international and national organisations' reports generated data on the dynamics of urban environmental problems in African cities, especially those in Ghana, and efforts toward preservation of urban environmental resources. Policy documents and reports used in this research included: WHO (2009, 2013) documents on environmental health from household air pollution, and environmental burden of disease; UNDESA/PD (2012) analysis on prospects of urbanisation; UN Statistics Division (2015) report on slum population as a percentage of urban population; World Bank (2015) report on rising through cities in Ghana focusing on urbanisation and its environmental implications; WHO and UNICEF (2013) report on progress on sanitation and drinking water; Ghana Statistical Service, (2012, 2013, 2014a, 2014b) reports on urban population dynamics in Ghana; and Sustainable Development Solutions Network (2013) report on the importance of urban sustainable development, among others.

Data obtained from these two sources were mainstreamed to focus on cases that provided relevant evidence to the subject being studied. Over 80 published documents on issues related to urban environmental problems including existing papers and books, and policy documents and reports were reviewed for this research.

3. Background to environmental problems in urban Ghana

Urban Ghana experiences a number of serious environmental problems, including air and water pollution, degradation of green areas, poor sanitation, and flooding (see Amoako, 2015; Cobbinah and Darkwah, 2016a; Quagraine, 2011). Attempts to manage these problems, however, have been handicapped by actual failure to appreciate their character and potential remedies. Conventional wisdom views Ghanaian urbanites as highly irresponsible toward the environment, and frequently pursue the national and local governments to deliver them from themselves. Urban research on Ghana (e.g., Cobbinah and Aboagye, 2017; Cobbinah et al., 2016a; Fuseini and Kemp, 2015; Quagraine, 2011) often tends to blame most, if not all, of urban Ghana's environmental challenges on rapid urbanisation, poverty and poor urban planning and management. Yet, there is no definite evidence that Ghanaian urbanites have been particularly oblivious to the value of the environment, nor has successive national and local governments demonstrated any genuine concern for it. Clearly, in this era of climate change and rapid urbanisation, safeguarding urban environmental resources in Ghana is an issue that needs to be examined more critically and be integrated into an overall strategy of sustainable urban development.

In these early years of the 21st century, virtually every urban area in Ghana is slipping on almost every index of development (e.g., sanitation, availability and adequacy of high-quality infrastructure and services, quality of life, health etc.). The immediate post-colonial period in Ghana in the late 1950s was exhilarating as urban planning was considered critical in changing the structure of the Ghanaian economy from that which evolved from the colonial administration (exclusionary and rigid planning approaches) to one founded on the needs and aspirations of the citizenry (Fuseini and Kemp, 2015). Unfortunately, this has been succeeded by the perpetuation and entrenchment of colonial rigid planning approaches (e.g., master planning approach) (Cobbinah and Darkwah,

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