

Urban Natural Space Conservation: Challenges and Perspectives in Bamenda North West Region of Cameroon

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ABSTRACT

Natural spaces constitutes a foremost environmental resource for humans. Its values have often been rooted in 'intrinsic' and 'instrumental' conservation stances. The plight and the growing prevalence of urban planning programmes draw attention to the question of its conservation and the outcomes. Over the last decade, the urban conservation challenge has increased tremendously owing to urbanisation. Conservation bodies have the potential to contribute to natural conservation governance. Although much of the current focus is in Africa, socio economic hitches pose challenges where much of the present attention is on opportunities that urbanisation can deliver for structural transformation.

This paper seeks to investigate the nature of and challenges behind the conservation of natural spaces and management drives in an expanding urban environment. From this ground, we provide a synthesis of conservation strategies of natural and artificial landmark spaces on which urban population ultimately depends. The combination of field observations, formal discussions and socio-economic questionnaires show that there are natural expanses in Bamenda town with varied functional objectives and management challenges. Institutional management drives and socio-cultural challenges compel the researcher to think about the state and far reaching effects that surround these areas. Field results indicate that there are natural expanses including green spaces, sacred forests, shrines, water catchments, and wetlands. The challenges considered as hindrances to protection and conservation of natural spaces go beyond rapid urbanisation due to the lack of priority regarding to these natural landmarks, minimal conservation awareness, and uncooperative attitudes of citizens. Against this backdrop, this paper attempts to strengthen conservation areas and recreational values through synergies between conservation and human attachment in Bamenda town.

KEYWORDS: *Natural space, Conservation, Urbanisation, Intrinsic, Bamenda*

1. INTRODUCTION

Urban growth and development in the world are leading to immense environmental concerns that may result in a global phenomenon. The pressures on urban areas engendered by modern urban planning have been of concern to the conservation community since the mid-1960s (Ibrahim 2017). Given the foregoing scenario, if the underlying values of natural spaces and conservation initiatives are not clearly stated, there is a danger that urban natural areas may lose their appetite for conservation contrary to the sustainable development goal (SDG) Number 11. More importantly, the Millennium Ecosystem Assessment (2005), places concerns on the issue of biodiversity loss in the tropics and efforts for sustainable management. However, the concept of nature/the natural is the most contested term that means different things to different persons in different places. The concept of natural spaces here capture monuments of nature that dispose the integral biological and cultural inheritance of many peoples. Within this framework, the existing protected areas of exploration is based on both intrinsic and instrumental values. Like cities in developing countries, Cameroonian cities display diverse form of landmarks on which humans depend. Thus, human values are both the

inspiration for conservation and how it always influences the science and practice of conservation. The integration of social-economic, environmental and urban governance as three pillars of sustainability, social development, economic development and environmental management could promote the sustainability of cities (EU, 2009). This new view focuses on how policymakers, practitioners, and the public can begin to think about natural areas as valuable contributors to larger urban policy objectives, such as income opportunities, cultural values, and physical monuments. As cities expand, and as we continue to value these spaces: challenges are emerging and missing links set in partly catalysed by deep institutional and regulatory lapses. The changes from natural land to urban land use are one of the core environmental issues in developing countries. The entire earth depends on the environment for survival. That is why these changes were discussed at the international level in 1972 in Stockholm during the United Nations Conference on the Human Environment. The most recent instances are the United Nations Climate Change conferences held in Indonesia in December 2007 and Paris in December 2015, respectively. This broadens the scope of

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environmental management to involve all stakeholders, (governmental, indigenous communities, NGOs and common initiative groups). The management of natural areas has become a crucial issue nowadays as humankind feels a lot of pessimism in the nearest future because of excesses used. The general question that still lingers is how local communities can continue to visualise the intrinsic and instrumental values of these conserved areas in a changing urban areas. After these three conferences mentioned above, many countries in Africa including Cameroon came up with a new environmental legislation to include most of the issues outlined by the Rio de Janeiro summit 2012. In Cameroon with a population, growth rate of 2.2% Fogwe, (2016). The fate of these natural environment surroundings is a cause for concern given adverse interests and management shortcomings.

Providentially, this study has delved into a broader scope of diverse environmental issues in an urban milieu. This goes beyond the green space spectrum to encompass for any defects about natural space conserved areas in town. Finally, this research is conducted in Bamenda town, a colonial structure town where the results of the natural space management pattern and its functionality may differ from other cities.

2. PROBLEM STATEMENT

In most Sub Saharan African countries today, urbanized areas are engaged with many natural space management structures based on development projects that are intended to sustain conservation and improve the livelihood of population. Urban areas are trailing the battle against the loss of natural areas. This is affecting urban conserved spaces. The intrinsic and instrumental values of natural spaces as umbrella concepts that incorporate a wide variety of closely related values, often with strong cultural and historical roots are not well managed. Conservation appears as the target and does not fully enter into the entire debate over conservation versus sustainable use of nature. In spite of the environmental degradation of the spaces, and as argued by Chase (2011) each country has its development, environmental and conservation policies that are geared towards ameliorating the situation. However, environmental degradation has continued unabated despite infinite conservation rhetoric, and revealed inadequacies of many approaches.

Urban landmark heritage relates to treasure elements of past positions in towns or cities that should be handed over to the next generations. Though this provides us with a sense of identity and community, it remains a huge challenge. Constructing effective and harmonious urban conserved areas and maintaining a sustainable living environment in response to rapid urbanization are the key issues that need to be resolved by landscape planners. The prime concern here focuses on natural conserved sites like sacred sites, green spaces, shrines, water catchments, and wetlands. These treasure natural sites in urban areas are undergoing degradation trends. The town of Bamenda is not left out of this wanting scenario. It has experienced a rapid growth in residential population and structural development, which has reduced the intrinsic¹ and instrumental² values of

¹ Intrinsic value here refers to the perspective that nature has value in its own right, independent of human

natural sites in and around the town. The incessant threats upon natural areas require sustainable measures to uphold the link between conservation and human reliance. Though there is a progressive annexation of these natural areas in the Bamenda urban area, there are some resilience natural sites, which display historical legacy and socio-cultural values. Thus, this paper attempts to reinforce intrinsic and instrumental values to contribute to the urban sustainable environmental scenery. This research approach therefore assesses the justification of natural space being fronted as a key instrument in maintaining protected zones in urban areas.

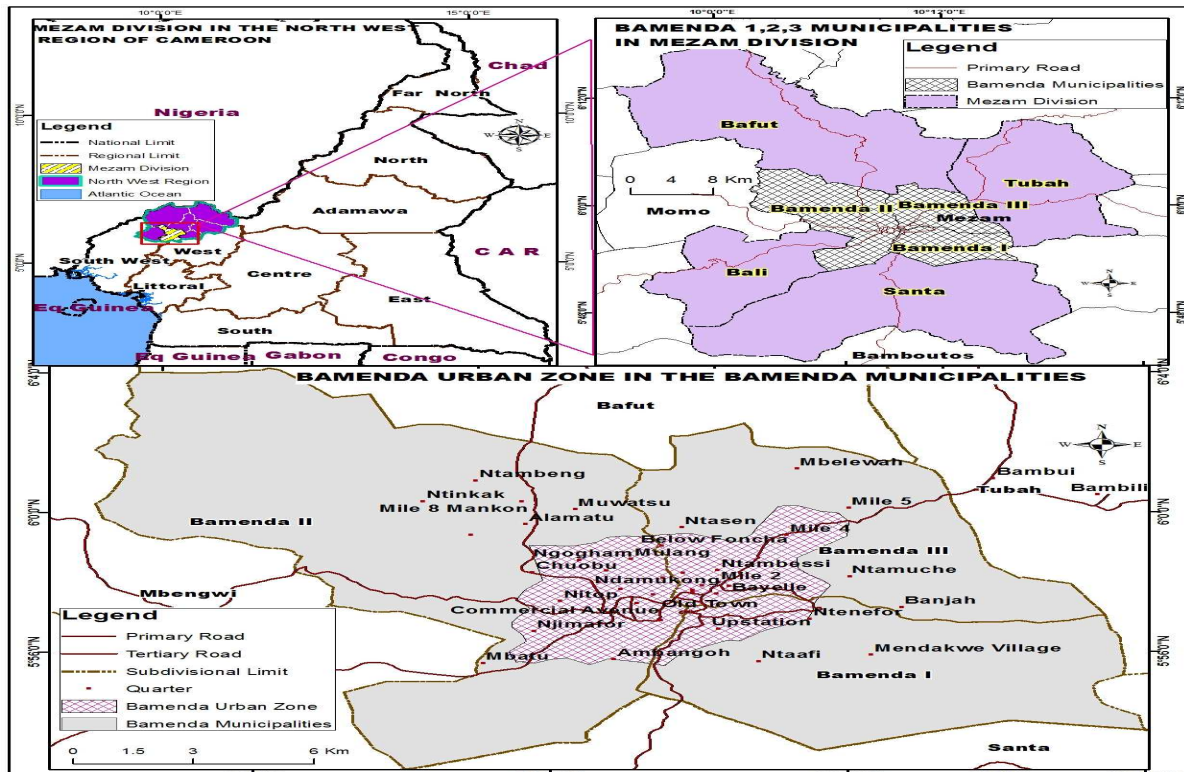
3. THE STUDY AREA AND METHODS

The study area is in the North West Region of Cameroon in Central Africa. It is situated between latitude 6° 15' and 6° 25' North of the equator and longitude 10° 02' and 10° 15' East of the Greenwich meridian. The surface area of Bamenda town is estimated at 30 km² and it hosts over 269530 inhabitants (Bucrep, 2005). It lies at an altitude of 1.430m above sea level; it equally lies on the Cameroon Volcanic Line. It is made up of two relief features, including the, the plateau of up station (Bamendankwe) and the lowland that is made of Mankon and Nkwen (Acho-Chi, 1998).

A combination of primary and secondary data was used. Primary data was obtained from 50 purposively selected inhabitants around the target sites. This was perfected by secondary data. Field surveys were conducted to appraise the nature of threats against the preservation of intrinsic and instrumental values of the conserved areas in Bamenda town. Focus group discussions were carried out with those depending on these spaces to obtain an accurate understanding of the challenges facing the areas. The members selected were 30 years and above who must have lived there for 10 years or more. The exercise was participatory to give a chance for participants to profusely express their understanding of the conserved areas. The study preferred the use of the content analysis technique to carry out the analysis without eliminating or suppressing the views expressed through interviews and focus group discussions. Descriptive analysis was employed to present the opinion of respondents with respect to the opportunities and challenges of conserved spaces. Figure 1 below is the location of Bamenda town, North West Region in Cameroon.

uses. Alternatively, it is perception of the inherent value of a nature; intrinsic value opens us to the possibility that nature has value even if it does not directly or indirectly benefit humans.

² Instrumental value here refers to value added and by extension, the conservation and management goals that are highly contingent on the plans or input.



Source: Administrative Unit of Cameroon; 2011 NIC Yaounde
Figure 1: Location of the study area

4. RESULTS AND DISCUSSION

4.1. SPATIAL VARIATION OF NATURAL SPACES IN BAMENDA TOWN

A conserved space is a precinct, delineated and managed in view of attaining intrinsic and instrumental values by humans. Bamenda is a fast growing urban area in Cameroon in all facets. Despite the population pressure that triggered transformation of the urban landscape, several natural areas continue to exist for historic, socio-cultural and environmental motives as indicated in the map below.

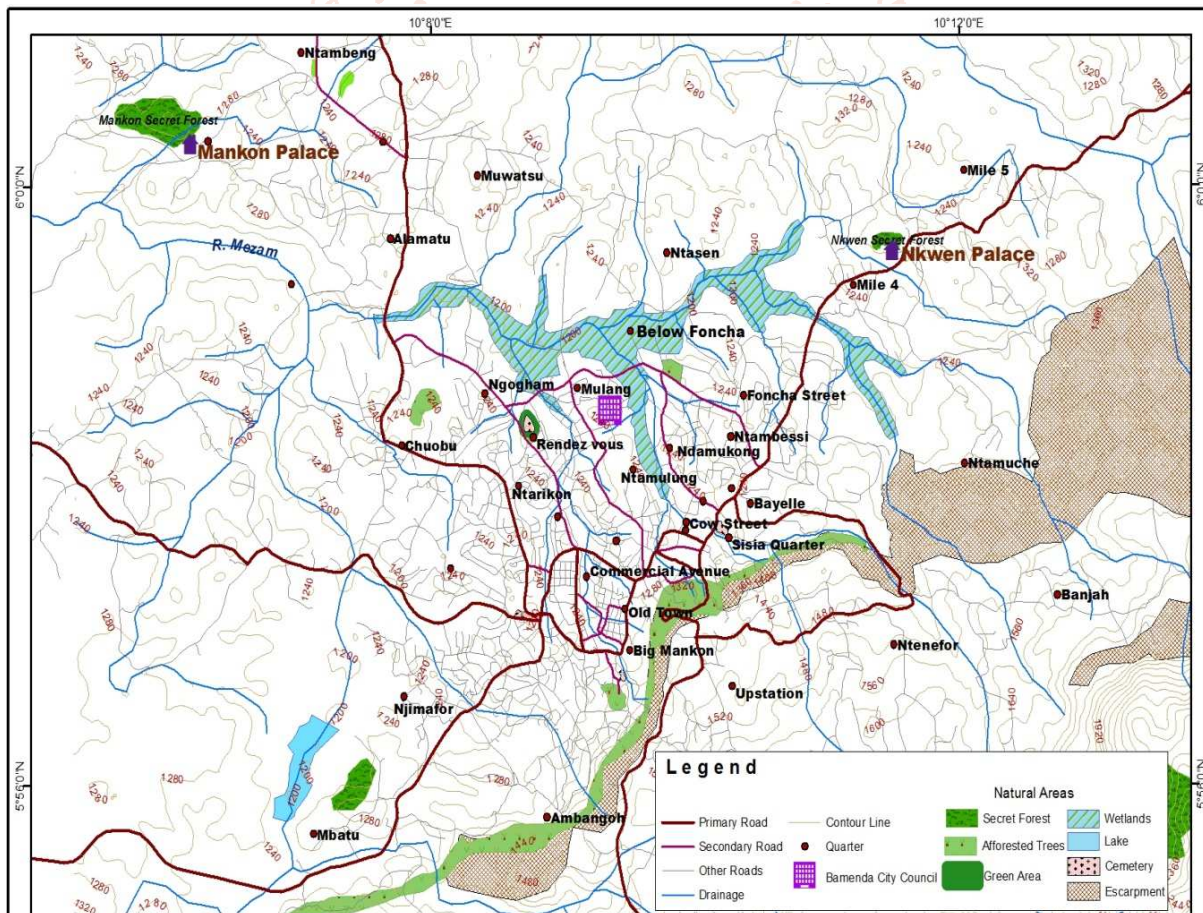
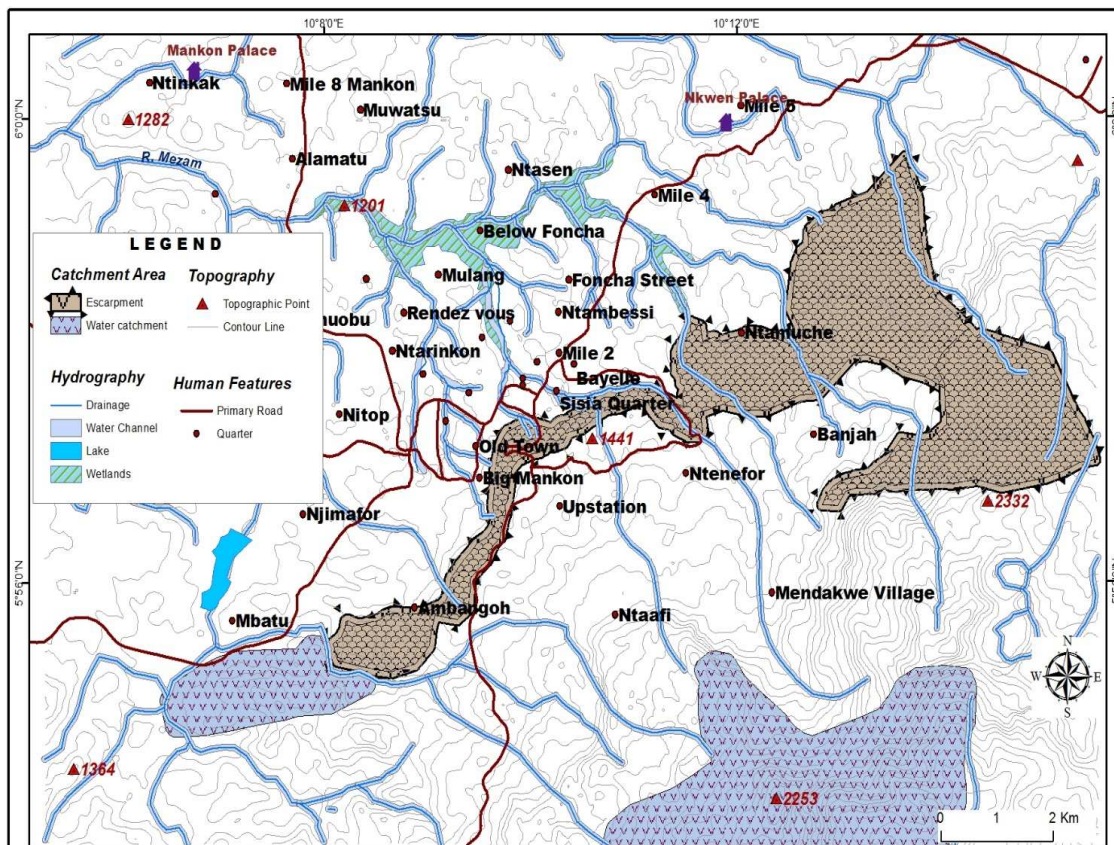


Figure 2: Conserve areas in Bamenda Town
 Source: Geodatabase for Cameroon, 2005 NIC Yaounde,

Owing to the importance of sustainable development goals, conserved natural spaces as indicated in Figure 2 above are landmarks, which display intrinsic values. This significant is concerned with the aesthetic and intellectual appreciation of nature, human compassion or reverence towards other life forms. They are rooted in deep-seated psychological tendencies and instrumental values; and usefulness that guarantee human survival, well-being and the potential to develop materially. It is a natural treasure that is worth a heritage drive. Its existence improves townscape, thus enhancing traditional and aesthetic values that support biodiversity, recreational areas and regulate the town's climate. In line with efforts geared towards the attainment of the Sustainable Development Goal "make cities and human settlements inclusive, safe, resilient and sustainable", the Bamenda City Council and the Dordrecht/Gorinchem City Councils of the Netherlands entered into a partnership with the United Nations Human Settlement programme (UN-Habitat) in August 2016 (Kimengsi et al., 2017). It further led to the creation of the Green City Initiative with encouraging output. However, challenges continue to surface.

Water catchment areas in Bamenda town are intrinsically conserved, with the Millennium Development Goals for 2015 to improve on water access, quantity and quality. These water catchment areas constitute precious preserved areas where several management efforts are showcase. They are water sources where the community and CAMWATER harness or depend on to supply water for human consumption. Therefore, the need to protect these areas becomes imperative. The catchments areas include Nkwen, Mendankwe and Mbatu as indicated in Figure 3 below, while the prominent wetlands are those of Mulang, Mbelem, Ntenesoh, Mend and Ghomgham.



Source: Geo database for Cameroon, 2005 NIC Yaounde
Cameroon Forestry Atlas 2011

Figure 3. Water catchment areas in Bamenda town



Source: Fieldwork 2018 Nkwen waterfall and water catchment
Photo 1. Sample photograph of a conserved area

The above photo indicates one of the landmarks used as a water catchment in the study area. The ecological services it provides to the urban community make it a conservation concern. Waterfalls are also noted to be other protected locations for the performance of traditional rites and rituals by the community. All these spots are highly conserved by the community through intrinsic laws thanks to their religious beliefs and traditional rituals that run through several generations (Balgah et al., 2016).

In addition to cultural outreach, sacred sites or forests constitute another type of safeguard zone. Community history reveals a deeply rooted and universal emotional human attachment to life and living processes on sacred sites despite the urbanization trends. In Cameroon, notably in the grass field areas, sacred settings are mostly within the Chief's Palaces. In the study area, they are in the Mankon and Nkwen Fon's Palaces. The sacred forest site is known as "Kwifo" located in the heart of a town. A way from the Palaces, some sacred forests harbour shrines for instance the case of Alankie sacred forest in Bamenda, Mankon that covers a surface area of 92 hectares). Interestingly, even though in the urban milieu the society holds strong beliefs about the sacredness of nature and lower levels of environmental destruction on it (Fru, 2014).

Green spaces which are artificially conserved sites give a new look of the urban landscape of Bamenda. It contributes to building a green city that enhances nature, environmental protection and offers socio-economic welfare to its citizens though without diverse vegetation configurations.



Photo 3 Samples of city developed green space

4.2. CONSERVATION CHALLENGES IN MANAGING NATURAL AREAS IN AN URBAN MILIEU

Natural space plays an irreplaceable role in the healthy upkeep of urban ecosystems while also meeting the social and psychological needs of the urban population. Nevertheless, there is a lessening interest in conservation and the environment among many urban dwellers. Besides, it is unclear whether the billions of new urbanites in cities are interested and engaged with the conservation movement: this remains a challenge in Bamenda town. Most often-urban dwellers are unlikely to be engaged and passionate about conservation unless they see conservation improving their lives (Bezák, 2011). Owing to that, conserved areas within the scope of this study face serious holdups. Through inferential reason, one deduces that farming activities constitute one of the highest proportions perturbing natural areas in Bamenda and its environs.

Governance challenges also ruined the management of natural spaces in Bamenda town. Conservation policies and actions are not applied to the whole city, whereas they need to be located within the overall planning framework for the city. The peculiarity of urban development processes in the study area have triggered its natural intrinsic/inherent traits that had a synergy influence on the pattern of conservation. In this same vein, the major limitations in Africa in ecological governance are the lack of capacity, involvement of locals and ecological experts in policy decisions especially in the urban milieu (Mensah, 2014). This would have provided a

good case for extending the management of natural resources beyond the confines of contemporary protected-area-based conservation. Therefore, this paper unveils knowledge gaps and challenges for the research agenda on ecosystem services provided in urban areas of African and Cameroonian cities, particularly in Bamenda City.

DISCUSSION

It is deduced that, the inevitable occupation of natural spaces in urban development processes could be the main cause of the decline of natural spaces in Bamenda town. The investigation unveiled that; fragmentation of natural space patches has a seemingly descending tendency. Because of this, natural space system planning does not necessarily match with the present natural area conservation stakes. This research indicates that, the spatial pattern of natural spaces in Bamenda town could be improved by making natural forms of network with multifunctional services. This will enhance trigger proximity and ecosystem services to both nature and people as inheritance treasure. Thus, the role of a natural space ecological network would be of particular reputation for urban conserved space system planning.

CONCLUSION AND RECOMMENDATIONS

Urban landform has much to offer to its urban populations in terms of recreation, a legacy of natural space, and a source of national pride. Its rich conserved spaces and ecosystems also serve as realistic indicators for sustainable management

goals, which can meet the needs of escalating urban populations. Because of the ever-growing population in most cities, large amount of conserved areas in and at the periphery of the cities warrant changes in space management pattern. The research casts light on the current natural areas development mechanism policies in the Bamenda urban milieu. Through the analysis of field data, many of the stakeholder governance policies were examined. It was evident that many strategies and plans in Bamenda do not satisfactorily protect natural spaces. This triggered several worries on future challenges facing the succeeding sustainability of natural conserved areas. The supposed historic, socio-cultural values and environmental attachment to these areas misplaced its intrinsic and instrumental values because the same priorities are not well thought out as other pressing necessities in town. The ensuing ideas are the most appropriate proposals for attaining more patterns of conserved areas to achieve the sustainable management goals in Bamenda town. This is more evident as the city councils in Cameroon through decentralisation policies have been given more devolution powers than in the past.

The support and resources needed by the local population for capacity building, education, networking, and training for potential of sacred sites for biodiversity conservation is wanting. Worthy local governance management strategies can have long-term implications, which provide a complete strategic track. Public participation whereby involving communities in conservation and environmental issues/decisions could be a way forward. Connecting people with nature and providing environmental education as well as the respect for traditional legends surrounding the conservation of natural sites for cultural values would uphold sustainable management goals.

REFERENCES

- [1] Ahem, J. (2007). "Green infrastructure for cities: the spatial dimension", in Novotny, V. and Brown, P. (Eds), *Cities of the Future: Towards Integrated Sustainable Water and Landscape*, IWA Publishing, London, pp. 267-83.
- [2] Acho-Chi (1998). *Human Interference and Environmental Impacts; Addressing Environmental Consequences of Rapid Urban growth in Environment and Urbanization*, vol. 10, No 2, London 161, 174.
- [3] Appiah, O.S. (2007). *Indigenous Beliefs and Environmental Stewardship: a Rural Ghana experience*. *Journal of Cultural Geography*. <http://dx.doi.org/10.1080/14747760701474776>.
- [4] Balgah, S. N., & Kimengsi, J. N. (2016). *Land Use Dynamics and Wetland Management in Bamenda: Urban Development Policy Implications*. *Journal of Sustainable Development*, 9(5), 1-11.
- [5] Bezák, P. & Lyytimäki, J. (2011). *Complexity of Urban Ecosystem Services in the Context of Global change*. *Ecologia Bratislava*, 30(1), 22-35. *Conceptual Framework*, OECD Regional Development Working Papers, OECD Publishing, Paris. Environment.
- [6] Fogwe, Z. N. (2016). *An Assessment of an Urban Development-Flood-Impact Relationship in a Near Millionaire City of Cameroon (Bamenda)*. *Journal of Geoscience and Environment Protection*, 4, 136-146. <https://doi.org/10.4236/gep.2016.44017>.
- [7] Fru. B.S., (2014). *Contribution of Traditional Institutions to the Sustainable Management of Sacred Forests: case study of Mankon Sacred Forests Northwest Region, Cameroon*. Masters thesis F.A.S.A, University of Dschang.
- [8] Grimble (1996). *Stakeholder Analysis for Natural Resource Management in Developing Countries: Some Practical Guidelines for Making Management more Participatory and Effective*, *Natural Resources Forum*, 19(2): 113- 124.
- [9] Heidt, V. and Neef, M. (2008). "Benefits of urban green space for improving urban climate", in Carreiro, M.M., Song, Y.C. and Wu, J. (Eds), *Ecology, Planning, and Management of Urban Forests: International Perspectives*, Springer, New York, NY, pp. 84-96.
- [10] Harvey, David. (1990). "Between Space and Time: Reflections on the Geographic Imagination." *Annals of the Association of American Geographers* 80, No. 3 .418-34.
- [11] Hodson, M., & Marvin, S (2009). *Urban Ecological Security: A New Urban Paradigm?* *International Journal of Urban and Regional Research*, 33, 1193-215. <https://doi.org/10.1111/j.1468-2427.2009.00832.x>.
- [12] Ibrahim H., Wael S & Hossam I. (2017). *Towards Green Cities in developing Countries: Egyptian new Cities as a Case Study*. *International Journal of Low-Carbon Technologies* 2017, 12, 358–368.
- [13] Johnson. M. (2001). *Environmental Impacts of Urban Sprawl: a Survey of the literature and Proposed Research agenda*. *J Environ Policy Planning* 33: 717–35. *Journal of Ecosystem*, 4(1), 1-11.
- [14] Kimengsi J., Forgewe N. (2017). *Urban Green Development Planning Opportunities and Challenges in Sub-Saharan Africa: Lessons from Bamenda City, Cameroon*. *International Journal of Global Sustainability* ISSN 1937-7924 2017, Vol. 1, No. 1.
- [15] Mbouagbo, Oben, Timothy (2012). *Cameroon: Flawed decentralisation and the politics of identity in the urban space*. *Global Journal of Human Social Science, Sociology, Economics and Political Science*. Volume 12, issue 11, version 1.0 years, Global journal INC. USA online ISSN 2249-460.
- [16] Mensah, C. A. (2014). *Urban Green Spaces in Africa: Nature and Challenges*. *International Journal of Urban and Regional Research*, 38(1), 1-11.
- [17] Robert Louis Whiting (2011). *Space, Place, and Nationalism: Constituting, Transmitting, and Contesting National Identity in the Urban Landscape of Zagreb, Croatia from 1850 to 1940*. Ph.D thesis Geography in the graduate college of the University of Illinois at Urbana-Champaign.
- [18] Sama, Nchunu Justice (2015). "Compliance et Enforcement of Environmental Law in Cameroon" *Second Africa-Asia Inter-Regional Expert meeting on Environmental Enforcement: 1-4 December 2015, Kunming, China, Foundation for Environment and Development (FEDEV) Cameroon*.
- [19] Ulrich, R.S., Simons, R.F., Losito, B.D., Fiorito, E., Miles, M.A. & Zelson, M. (1991). *Stress Recovery during Exposure to Natural and Urban Environments*. *Journal of Environmental Psychology*, 11(3): 201-230.
- [20] Victor K. Ntoban and Zephania N. Fogwe (2019). *The Garbage Disposal Challenges in Bamenda (Cameroon): An Urbanisation and Public Welfare Policy Accountability?* Published in *International Journal of Resource and Environment Management*. Volume 4, Number.75-92