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Text

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Abstract

It is estimated, today, that more than half of the world's population resides in towns and cities. This population explosion has affected the development of urban areas. Such uncontrolled growth often results in the destruction of arable lands, congestion, various forms of pollution, slums and shanty towns. This perspective brings a pressing reality to the necessity to build tomorrow's world on sustainability principles. To achieve sustainable urbanism the scale of urbanisation must be accepted and urban development processes guided and managed within a sustainable approach. Sustainable urbanism, which is defined as an application of sustainability and resilient principles to the design, planning and administration/operation of cities for a better way of life affects a range of developments. The linkage between urbanism and sustainable planning signifies a beneficial impact for communities and built environment realisation. Through the use of mixed methods analysis this research provides an opportunity to study how sustainable urbanism and its principles can be adopted and implemented in developing countries using Abuja, Nigeria as the case-study area. This research also examines how sustainable urbanism can be achieved through the use of sustainability assessment methods, and develops an innovative and holistic assessment method to measure the sustainable urban neighbourhood in developing countries. The use of interviews and questionnaires helped in developing the assessment framework, supported by complementing methods, including case studies and ethnography. For this thesis a total of 30 interviews were conducted, alongside the administering of 50 questionnaires, while the case-study analysis was used to test and develop the framework. This research contributes to the area of sustainability and sustainable urbanism by developing and implementing an innovative sustainable composite cities environmental evaluation and design tool neighbourhood design (SUCCEED ND) to enhance the present practice, propose a novel assessment tool and to deliver neighbourhood sustainable projects. Past studies on sustainability assessment have focused on either the city or building level; whereas the assessment of neighbourhood sustainability has received very little attention in general and in the context of developing countries in particular. The SUCCEED assessment method is designed to be holistic, effective and robust to respond to the needs of urban design, planning and management within developing countries - specifically, the Nigerian context in neighbourhood scale. The SUCCEED system is designed to assess sustainability performance within four sustainability dimensions - Environmental, Economic, Planning and Social/Cultural dimensions. This system comprises a total of 105 indicators which cover all necessary and important areas with regards to sustainable urban neighbourhoods. Overall this looks at enhancing sustainability in urban spaces and also enables a critical understanding of sustainability assessment and implementation within the context of developing countries by testing and validating the tool on a case study in Abuja, Nigeria in order to achieve sustainable urbanism. The main result achieved from this research is that sustainable urbanism and its theories can be achieved through the use of environmental assessment methods alongside other supporting techniques. This designed method comprises of selected sustainability indicators which are used for testing purposes and are not presented as a comprehensive list to assess the entire system.

Item Type: Thesis