8th International Conference of Multidisciplinary Approaches (iCMA), 2021
Faculty of Graduate Studies,
University of Sri Jayewardenepura,
Sri Lanka.
ISSN: 2386 – 1509

THE STUDY OF URBAN PARKS IN ADDRESSING THE NEIGHBOURHOOD DENSITY FOR EASING PANDEMIC OUTBREAK IN COLOMBO METROPOLITAN AREA

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Abstract

The pandemic of novel coronavirus 2(SARS-CoV-2) has developed into the "new normal" across the Globe. In Sri Lanka, urban cities like Colombo with high population densities are challenged in balancing the viral spread due to unprecedented behaviours of city dwellers. Allowing access to urban parks is a vital requirement to ensure the health and wellbeing of people. Since gatherings and crowding in urban parks are inevitable, the risk of being infected is irrepressible. Thus, it is paramount important to study the physical distribution of parks/playgrounds in densified neighbourhoods of Colombo to evaluate their user attraction to reinvent strategies to ease the pandemic outbreak. This study investigates five main variables; Neighbourhood Density (ND), Park Values (PV), User Mobility (UM), Park Capacity (PC), and Park Extent (PE) of 34 public parks and playgrounds. Selected settings represent all accessible parks/playgrounds above 0.0001sq.km located within Colombo-metro area. PVs are equipped to numerically interpret user attraction of selected case studies, derived from 40 factors of attraction. Each variable was simulated using Geographical Information system and Space Syntax and further correlated using SPSS formulas. The findings prioritize that the large-scale parks with multifunctioning facilities attract more users (R2=0.967) than small-scale parks. Furthermore, vehicle parking, park capacity, location emphasis a high positive co-relationship with user attraction. The even distribution of such facilities enabled to reduce 41% of total user attraction. Thus, the findings strongly suggest that the distribution pattern of parks be isolated pockets to absorb the threshold of park users within a neighbourhood bubble while discouraging outer bubble interactions. Moreover, fragmenting large-scale parks and facilitating local parks less than 0.05sq.km will be able to control the excessive attraction of users. In conclusion, the study promote that suitable planning and design recommendations towards functional small neighbourhood pockets can ensure a healthy community by easing the pandemic outbreak.

Keywords: *Neighbourhood Density, Park Values, Mobility, Physical Distribution, Isolated Pockets*