

Rapid Change and Expansion of Built up Areas and Its Impact on Sustainable Land Management: A Case Study of Municipal Council Area of Gampaha

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Rapid urbanization has resulted in increasing demand and pressure on prime agricultural lands. Last few decades, built-up land uses have been rapidly expanding within the 27.18 sq. km. in the Gampaha municipal council area. The resultant pressures due to these developments have been substantial on the local natural resources and the socio-economic conditions.

The study examined the spatial changing pattern and expansion of built up areas using satellite images and land use maps of 1956, 1984 and 2018 of the study area. Using GIS software, maps were overlaid. Building layer was derived from the Open Street Maps and was analysed. Loss and gain analysis proved the change of land uses over the years.

The study revealed that the population increase had generated high demand for other land uses against agricultural land uses. This has resulted in increasing conversion of agriculture lands into residential and commercial land uses. The study also revealed that the built up areas were rapidly sprawling in the absence proper spatial planning. In 1956 built up areas accounted for (2%) and it has expanded up to (12%) in 2018. In 1956 the total home garden was 1478.10 hectares and those lands have been converted homesteads. With land fragmentation 930.38 hectares of coconut lands have reduced to 170.75 hectares from 1956 to 2018. It is emphasized that the proposed UDA planned areas were being bypassed in expanding the built up areas. Therefore the study recommended for vertical expansion of built up areas in the triangle of Gampaha, Miriswatta and yakkala to be adopted to avoid misuse of natural resources and ensure sustainable land use management.

Key Words: Built Up Areas, Spatial pattern of Land Use Changes, sustainable Land Uses