

Evaluating sustainable urbanization: A comparative study between Salt Lake town and New Town, West Bengal, India.

Shishir Singh, Supratim Karmakar*

ABSTRACT

Urban environmental degradation is a common phenomenon through out the world. Sustainable urban planning is the key concern for the betterment of the overall urban environmental health. The present study is being focused on the issue of sustainable urban planning through the lenses of Landuse landcover pattern of two planned urban centers of West Bengal, namely Saltlake and New Town. Landuse and Landcover maps have been prepared using Landsat 8 images of both the urban centers. Secondary data based on air pollution level of these two urban centers have been compared to identify the impact of landuse and land cover on the environment. A comparative analysis has been done between two urban centers in terms of policy implementations also. Finally the research work is aimed to come to a conclusion about the effectiveness of sustainable urban planning in both these towns and in general.

1. Introduction

Urbanization is the growth engine of the economy. The entire world is witnessing a rapid urban expansion. With this rapid urbanization, the concern about environmental sustainability taking new dimensions of significance. Urban planners are the major stakeholders in this field of sustainability, as they are the brains behind innovative ways of sustainable urban planning [1]. Urban population is very much heterogeneous in nature. The demand of urban population is varied in nature in terms of occupation and socio-cultural aspects [2]. As a result of varied demand of population, the land use land cover of the urban centers become more complex than the rural counter parts.

Department of Geography,
Adamas University,
Brasat – Kolkata
7000126

*Corresponding author email id:
supratim1.karmakar@adamasuniversity.ac.in

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Environmental sustainability is reflected through the land use land cover pattern. In India, both planned and unplanned cities co-exist. Unplanned cities are mostly devoid of thoughtful land use planning, rather organic use of land by the urbanites. Planned cities show much more rational use of land, as they are previously designed in such a way that it cannot hamper the public interest as well as the issue of environmental sustainability [3].

1.2. Selection of the study area

For the study of urban sustainability, two planned satellite towns of West Bengal have been selected, namely, New Town and Salt lake. Both the towns are situated in the vicinity of Kolkata metropolitan, West Bengal. Salt lake township was built up in between 1958 to 1965 to reduce the population pressure of Kolkata with sufficient amount of green and open spaces. The inception of New Town started in 2007. It is a satellite town built up in North 24 Parganas district encroaching wetlands in the vicinity of Kolkata.

1.3. Literature Review

Urban sustainability is a growing field of interest among the researchers. Before delving into the analytical side