

## Chapter 18

# Major Components of Green Urbanization and Their Relative Importance: A Study on Some Districts of West Bengal (India)

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### **ABSTRACT**

*Aspirations for being urban in character are considered as a significant phenomenon of socio-economic development in developing countries. Urbanization, in economic sense only, means intensive economic activities by a large number of people in a relatively small plot of land, where secondary and tertiary sectors play a dominant role and where certain amenities are bound to be available for general citizens, though it doesn't seem complete without addressing the issue of nature. Though urbanization of an area is tried to be measured by some academicians through applying the method of indexing with available indicators and their data-driven weights, environmental issues are not incorporated there for any kind of factor analysis to identify their individual relative importance. This chapter intervenes at this juncture and focuses on construction of an urbanization index for some selected "town area units" belonging to some selected districts of West Bengal and run a factor analysis of it on some identified environmental factors. It observes negative relationship between QVSE and IGU, positive association between IGU and PR, and positive relation between IWDS and IGU.*

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## **INTRODUCTION**

It is undoubtedly considered as a historical fact that, urban primacy has been a feature of urbanization of West Bengal in India and there was a continuous increase of population in highly urbanized districts around Kolkata, one of the four metropolitan cities of the country. This feature of mono-centric urbanization subsequently led to slowing down the process of urbanization in the peripheral parts of West Bengal from 1951 onwards and quite a different trend has been noticed very recently during the first decade of the new millennium (i.e., 2001-2011). The Census data of 2011 has vehemently revealed that the urbanization process of the state exhibits a growing trend and begins to spread, taking into account the environmental factors in it. These have been accompanied by a noticeable decline in the percentage share of the population in the Class I towns and substantial population growth in small towns. Simultaneously with a substantial increment in the number of census towns with some added environmental facilities, the traditional rural fabric of most of the villages has changed and majority of the rural people has started to think for a better living with a better access to available amenities. Of course previously designated and statutory towns are there and will be there over the course of time but the changing drives of the rural area-units towards green urbanization both from the demand side and supply side is the major concern and this study makes an attempt to explore this changing pattern of urbanization towards more eco-friendly kind of nature and find out some policy implications.

Under this background, the present study has decided to pursue a research work about the ongoing 'green urbanization' process in the rural areas of West Bengal which are primarily classified under statutorily structured community development blocks (i.e., C. D. Blocks or only blocks). For the purpose of our study, we have strategically designed a systematic stratified sampling method to choose six districts of West Bengal and further we have chosen two blocks from each of the six selected districts following another method which is also based on certain arguments. The study is pursued covering a time period of three census decades (1991, 2001 and 2011) and we aim to see whether there are adequate measures for green urbanization acting actively to keep pace with developmental aspirations of the people in different parts of West Bengal.

This article intends to propose a new concept the '*Index for Green Urbanization*' (*IGU*) to be applied for all the census-units (i.e., villages and census-towns lying within a block) of the state which is obtained by adopting coherent methodologies on the basis of selected indicators for available environmental amenities and other criteria which are very much likely to indicate the gravity and degree of green urbanization in a particular area-unit. In constructing the *IGU* we have tried to incorporate various factor indices which are specifically based on selected item-wise parameters of different types of environmental amenities available, the underlying dimension indices of both the *town criteria index (TCI)* and the *environmental criteria index (ECI)* and finally to determine actual weights for those factor-indices and dimension indices by applying a new method, namely the *Iterative Average Correlation Method (IACM)* as proposed by Mondal, Mookherjee and Pattanayek (2017).

## **A BRIEF PROFILE OF WEST BENGAL AND ITS GENERAL URBANIZATION**

The Indian state of West Bengal is located in the eastern part of India on the north of Bay of Bengal. It is India's fourth most populous state, with over 91 million inhabitants (as of 2011 census) and it has an area of 88,752 square kilometer (i.e., 34,267 square miles). This state is actually a part of the earlier

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