COLLEGE LIBRARIES

(A Peer-Reviewed Quarterly Journal)

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Contents

Application of Geographic Information System (GIS) in Identifying Libraries in the Districts of West Bengal

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Abstract

Geographic Information System (GIS) is a technology that represents spatial data in an enhanced manner for utilisation in human resource development. This study aims to identify the location of different libraries using ArcGIS and also determine the library health of the districts of West Bengal. Location maps have been prepared showing the location of government libraries, government sponsored libraries, aided libraries, century old libraries and other important libraries in the districts of West Bengal. A choropleth map has been prepared using the ratio between the total number of libraries in each district and the existing literate population of the same district (derived from Census of India, 2011) to depict the library health of that district. A higher ratio value signifies that a greater number of the population depends on the services provided by a limited number of libraries which highlights the poor library health of that district and vice versa. It has been found that Kolkata, Alipurduar and Kalimpong have the lowest library population ratio indicating a very good library health of these districts. However, the situation is very serious in terms of library health in Jalpaiguri, Paschim Bardhaman, East Midnapore, West Midnapore and Bankura where only a few libraries are located to be accessed by a considerably large number of literate population. Therefore, this study recommends increasing the existing number of libraries by constructing new libraries in these districts, so that the people can properly access the library services.

Keywords: District, Geographic information system, Library, Map, Population, West Bengal

1.   Introduction

Geographic Information System (GIS) is a technology that is based on computers and used in receiving, storing, analysing and presenting information regarding the different locations on the earth's surface like buildings, markets, airports, forests and others. Such locations can be represented in different ways like latitudinal and longitudinal extension, address and pin codes. The data is handled in the GIS interface in an enhanced manner to create logical patterns, trends and relationships existing in the data. In other words, the spatial data can be captured and maintained by this technology that is ultimately utilised in the development of human resources (Bhatta, 2020).

GIS has emerged as an advanced map-making process that can superimpose data into different layers in this technology. For example: the pollution data of any country can be superimposed with the GDP of that country to find the relation between the rate of development and the pollution level. The maps created by GIS display the numbers, density and concentration of the population, workers or literates of any region. GIS is used to study the changes in any aspect of the earth