

PREFACE

One of the cities in eastern India that is seeing rapid urban growth is Kolkata. Kolkata's surface temperature is significantly greater than its surroundings due to the rising urbanisation, which is also having an impact on the local land resources. In this study, an effort has been made to determine how the built-up area evolved through time and how urban growth is affecting the vegetation cover. In addition to this, an effort has been made to examine the surface temperature trends in Kolkata. Between 2010 and 2020, this study was conducted. Landsat satellite pictures from the years 2010 to 2020 have been used to determine the vegetation cover and built-up area of Kolkata city using Land Use / Land Cover Classification, Normalized Difference Built-up Area Index, Normalized Difference Vegetation Index and Built-up Index. This study shows that the percentage of built-up areas is rising while the vegetation area is decreasing. In the city's central regions, the surface temperature is high. This research will provide new light on studies of urban heat islands.