Indian urbanization statistics experienced an unprecedented rate of growth over the last 30 years. Besides the three current mega cities (Delhi, Mumbai and Kolkata), nine more urban agglomerations in India (Ahmadabad, Bengaluru, Chennai, Hyderabad, Jaipur, Poona, Kanpur, Lucknow, Surat) currently have more than 2.5 million inhabitants. There is an immediate need to study, understand and quantify the urban sprawl in a more comprehensive way for these emerging urban centers. The current paper conducts a spatiotemporal analysis using two different images of Landsat satellite to detect urban footprints and their change in 20 years in Kanpur city of Uttar Pradesh state of India. Multi ring buffer analysis helps to more clearly distinguish these changes within the segment of 2km from city center. The study shows that there is a remarkable growth in urban sprawl at the outskirts of the city.

References


Index Terms

Computer Science Wireless
Keywords

Remote Sensing, GIS, Multi Ring Buffer, Change Detection, Urban sprawl.