UTILIZATION OF INDIAN REMOTE SENSING SATELLITE DATA FOR ASSESSMENT OF URBAN GREEN SPACES

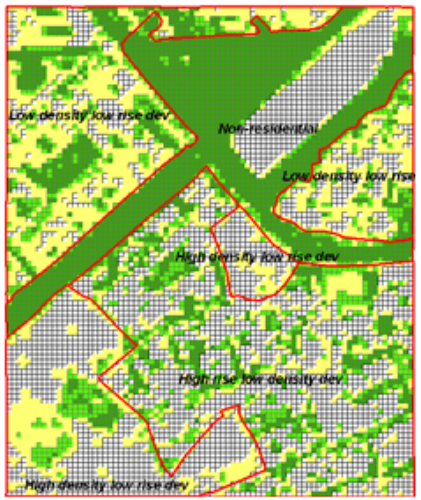
Major Objective: To develop methods for assessment of Urban Green Spaces in urban areas using Indian Remote Sensing Satellite data.

Multi-Parametric Index

Study area: Chandigarh, Parts of East Delhi **Datasets:** Cartosat-1, Cartosat-2, IRS-P6 LISS-IV

Parameters:

- Percentage of Green,
- Type of Green(Trees/Dense Vegetation, Grass/Low Vegetation)
- Proximity to Green
- Height of Structures

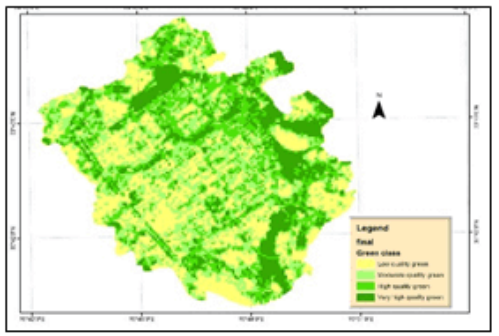


Legend

Weighted Urban Green Index Map, Parts of East Delhi

- Low Quality Green NH
- Moderate Quality Green NH
- High Quality Green NH
- Very High Quality Green NH

Conceptual framework for Measuring Neighborhood Greenness



Weighted Urban Green Index Map, Chandigarh

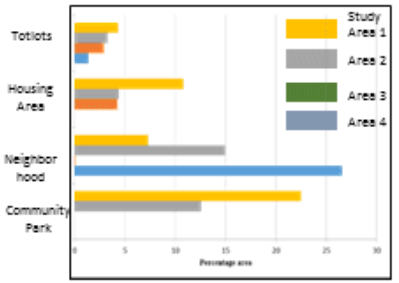
Developed Index can be used as a tool by planners especially urban development authorities to assess and monitor as well to evaluate, quantify and compare UGS.

Accessibility Analysis

Study area: Parts of East Delhi

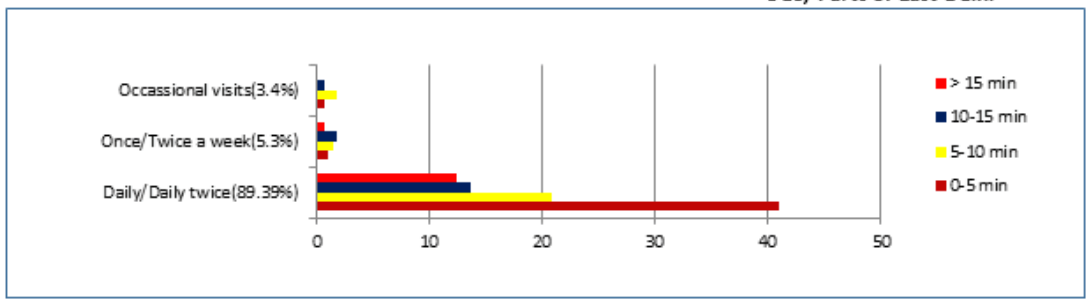
Datasets: Cartosat-2, IRS-P6 LISS-IV

Different network distances have been applied to each hierarchy (Totlots, Housing area, Neghborhood and Community Park) of Urban Green Spaces as they compliments each other rather than supplements.



Service area at hierarchical levels by Network Analysis, Parts of East Delhi

Accessibility to different hierarchies of UGS, Parts of East Delhi



Relationship between frequency of visits and preferred walking time

GIS based accessibility analysis reveals poor accessibility of UGS at all levels of hierarchies (~ 30%) especially at lower levels of hierarchies, which mainly caters to primary age children.

Further Scope– The developed index and accessibility analysis can be used as a tool for analyzing the distribution and accessibility to UGS, leading to adoption of smart living and greening strategies.