

IAF EARTH OBSERVATION SYMPOSIUM (B1)

50 years of Earth observation: The contribution to sustainable development goals and plans for the future
(6)

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URBAN LANDUSE ANALYSIS: A CASE STUDY OF NORTH-NAZIMABAD BLOCK-D, E, F, G, H

Abstract

Process of urbanization is on peak in Karachi for last fifty years. It's considered as a mega polis in Pakistan with population of approx. 20 million. Therefore planners and administrative unit's need spatial and socio economic data for analysis at multiple places specially in urban planning for unplanned physical environment. The most planed housing sector after independence is North Nazimabad located at northern suburbs of Nazimabad region. It was developed to manage the residential needs of federal employee because Karachi at that time served as the capital of Pakistan. For that purpose town is alphabetically located blocks with well-planned structure. It's considered as the modern planed town of Karachi. For this GIS technology having effective use to study and analysis the comprehensive planning, site suitability, zoning, temporal variation and specially for all mapping purpose. To study and analysis purpose data is acquire in the form of satellite imageries and ground surveys. Absolute position of land cover mark through GPS. GPS points converted into ground control points in GIS. GCP's are plot on satellite imageries for absolute position of places. Satellite imageries are acquired from Google Earth for high spatial resolution. Also Landsat images are acquired due to their high spectral resolution. This helps to determine change through different indices. North Nazimabad is a well-planned and modernized town of Karachi city based on the concept of Clarence Perry. It started out as a planned town with residential development as the main focus with well-defined areas assigned for commercial and residential uses. However from our survey it has become apparent that most of the residential areas along the roads have been converted for commercial use, also the growing need for residency has led to vertical growth resulting in the construction of apartment buildings. It is a common trend to develop land vertically when the horizontal space becomes restricted due to over development or increase in population. Vertical development takes up less space as opposed to horizontal development accommodating more families in a single building in the case of apartment buildings and, also, providing a wide variety of shops in a single vertically developed mall hence providing easier access point for wide variety of products to the customer. In North Nazimabad vertical development is quite apparent in the forms of various apartment buildings and shopping malls.