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**Topic: A Spatio-Temporal Analysis of Urbanization and its Impact on Changing Cropping Pattern during 1971-2008 in Kangra District, Himachal Pradesh**

### **ABSTRACT**

Urbanization is the common trend in these days, urban area expansion directly affect rural and agriculture cropping pattern. Due to expansion of urbanization, low returns in traditional farming systems, demand of high value crops/products and introduction of advanced technology in the agriculture systems, farmers of the Kangra District of Himachal Pradesh were compelled to change the traditional farming systems to modern systems. The present study aims to find out the changes in the cropping pattern in response to urban growth in the Kangra District of Himachal Pradesh during 1971 to 2011. This study is based secondary data procured from various departments. This work observe that urban population causes change in the cropping pattern and area under high value crops tends to increase in response to urban demand.

**Study Area:** Kangra District of Himachal Pradesh is the study area.

**Objectives:** The main objectives of the study are:

- To study the rate of urbanization in the study area.
- To analyze the spatio-temporal changes in cropping pattern of Kangra District.

- To analyze the relationship between increasing urbanization and its effects on the cropping pattern of the area.

## **Database and Methodology**

Database: - The present study is largely based on secondary data. However field observations were also undertaken for verification of ground truth.

**Satellite Data:** Landsat TM, IRS P6 (Resourcesat –1) LISS –III, Cartosat DEM.

**Auxiliary Data** acquired from different Departments like: Survey of India (SOI), Census of India, Wadia Institute of Himalayan Geology, etc.

**Software Used:** Different software has been used in the study like Erdas 9.1, Arc GIS 9.3, GPS, Microsoft Office, SPSS -16.0, Google Chrome, Internet explorer.

**Research Methodology:** For this study different methods and formulas were used:

- Landuse and Landcover (LULC) Classification
- Urbanization Index
- Cropping Pattern
- Karl Pearson Correlation Method

**Summary and Conclusion;** Logically the proportionate area under vegetables and non-foodgrains is effected by growing urban population which is seen by the positive correlation coefficient between them. But owing to lesser number of observations, the significance is not established. Thus, the expanding urban population certainly causes change in the cropping pattern and area under high value crops tends to increase in response to urban demand.

