

Application of remote sensing and Geographic Information System in cropland mapping : A case study

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ABSTRACT: Mapping and monitoring of cropland opens way for its management and planning towards increasing yield capacity of lands. In the present study, the high resolution satellite data of IRS P6,LISS IV, March and November, 2010 were processed in the core of Geographic Information System (GIS) using Systematic Visual Image Processing Approach for generating cropped area map in Gauriganj block (lies between 26°7'5"N to 26°19'5"N latitudes and 81°36'45" E to 81°45'18" E longitudes; area-20481.5 ha) of Sultanpur district, Uttar Pradesh, India. The interpreted data is validated by ground truth collection through field visits. Three classes of cropland have been identified and mapped in the study area viz. i. Rabi cropping area ii. Kharif cropping area and iii. Rabi and Kharif cropping area. This study demonstrates that validated remote Sensing and GIS techniques are efficient and adequate tools for cropland monitoring and mapping.

Key Words: Yield capacity of land, IRS P6,LISS IV data, Geographic Information System.