

## Remote Sensing Applications: Indian Perspective

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Remote sensing is a very valuable tool for a country like India of vast geographical dimensions and diversity. While the setting up of the Thumba Equatorial Rocket Launching Station (TERLS) in 1963 marked the beginning of the Indian Space Programme, the remote sensing programme was initiated in 1970 when serial surveys were conducted using a Hasselbald camera to obtain IR imagery to study the coconut disease in Kerala. The USA made available the "Landsat System" which was used to develop ground stations and analysis capabilities to make full use of data from these satellites. The launching of Bhaskara-I and II during 1975-82 paved the way for establishing the satellite based remote sensing system. IRS-1A of March 1988 and IRS-1B of August 1991 are providing unique opportunities to use remote sensing data for monitoring and measurement of India's natural resources and environment. The data is being used for several applications: agricultural crop acreage in Medak district's jowar crop, Punjab, Haryana and western parts of UP. Normalised Difference Vegetation INDEX (NDVI) Information was being generated since 1986 by the Department of Space for the entire country at 1 km resolution, which was used for assessment and monitoring of agricultural drought conditions at district level in eleven States. Mapping of saline/alkaline soils in several States has been completed and these maps have been reconciled with the National Bureau of Soil Survey and Land Use Planning (NBSS&LUP), Nagpur. Remote Sensing has also been used in identification of potential fishing zones, wasteland mapping, groundwater targetting, flood map preparation.