

## **Integrated Watershed Management by Utilising RS and GIS Techniques**

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### **ABSTRACT**

Watershed is a Geo-hydrological unit draining at common point by a system of streams. Watershed Management is the rational utilization of land and water resources for Optimum production with minimum hazard to Natural Resources. Remote Sensing (RS) and Geographical Information Systems (GIS) techniques can be utilized for effective management of Land and Water Resources in a Watershed. Even the Government of Andhra Pradesh is implementing watershed development programs on priority basis for sustainable development of land and water resources on holistic approach. The activities of watershed management mainly include Rainwater Harvesting Structures, Soil conservation measures and Environmental Protection measures. The study area was Boothpur Mandal, which is one of the 64 mandals of Mahaboobnagar district. These areas have been identified as Chronically Drought affected areas in the state because of scanty and erratic rainfall. Collection of source data like Satellite data of two seasons, SOI toposheets, Village maps was carried out. Secondary data like Ground water, agriculture, population, Socio-economic data were collected. Various thematic maps like Base map, Contour map, Drainage map, Soil map, Slope map, Land use/Land cover maps, Geomorphology maps were prepared by using SOI toposheets and by Visual interpretation of Satellite Imageries. After analyzing all maps, Action Plan Map was generated for the Soil and Water conservation in the study area.