

## **GIS Based Delineation of Micro-watershed and its Applications: Mahendergarh District, Haryana**

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**ABSTRACT** A watershed is a logical unit of planning for optimal development of soil, water and biomass resources or it may be said that it is a basic unit for micro-level planning. In the present paper an attempt has been made to delineate sub-watershed and micro-watersheds in Mahendergarh district of Haryana. Data has been generated from Survey of India toposheets on 1:25,000 scale and multi-spectral satellite data of IRS P6. Watershed boundary has been delineated using ArcGIS 9.3 software. By using Arc-hydro tools, 40 micro-watersheds have been delineated. These can be used more conveniently in assessing ground water resources and execution of development programme at micro-level. After delineating micro-watershed, an attempt has also been made to study the landuse pattern of these micro watersheds. Monitoring of micro-watersheds through the knowledge of landuse pattern helps in management or in sustainable development of natural resources in that area in scientific manner.