

## **MORPHOMETRIC AND LAND USE / LAND COVER BASED SUB-WATERSHED PRIORITIZATION OF TOREHALLA USING REMOTE SENSING AND GIS**

**MANJUNATH H. N & SURESH T. S**

Department of Geology, Bangalore University, Bangalore, Karnataka, India

### **ABSTRACT**

The quantitative geomorphic studies of a basin is helpful in prioritizing its sub-watersheds. The Watershed prioritization based on land use / land cover analysis is gaining importance in natural resources management. In the present study an attempt has been made to develop and monitor soil and water resources by studying in detail the sub-watersheds. The prioritization is based on morphometric and land use / land cover analysis using remote sensing and GIS technique. The investigation reveals that sub-watersheds SW2 and SW14 are very highly prioritized based on morphometric analysis. The sub-watershed SW8 is ranked under very high category based on land use/land cover analysis. However it is observed that upon integrating both morphometric and land use / land cover thematic layers, three sub-watersheds *Viz.*, SW6, SW9 and SW11 are found to receive common priority by both the approaches and remaining sub-watersheds show little correlation difference.

**KEYWORDS:** Land Use / Land Cover, Morphometry, Prioritization, Remote Sensing and GIS, Watershed

