

## Approach to Quantify Groundwater Recharge Using GIS Based Water Balance Model

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**Abstract :** Groundwater quantification needs a method which is not only flexible but also reliable in order to accurately quantify its spatial and temporal variability. As groundwater is dynamic and interdisciplinary in nature, an integrated approach of remote sensing (RS) and GIS technique is very useful in various groundwater management studies. Thus, the GIS water balance model (WetSpas) together with remote sensing (RS) can be used to quantify groundwater recharge. This paper discusses the concept of WetSpas in combination with GIS on the quantification of recharge with a view to managing water resources in an integrated framework. The paper presents the simulation procedures and expected output after simulation. Preliminary data are presented from GIS output only.

**Keywords :** groundwater, recharge, GIS, WetSpas

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