

GEOSPATIAL MAPPING AND ASSESSMENT OF GROUNDWATER DEPLETION DUE TO URBANIZATION IN COIMBATORE DISTRICT

HELAN JENIFER .S¹ & DR. JYOTHIRMAYI .P²

¹Assistant Professor, Department of Geography, Nirmala College for Women, Coimbatore, India

²Assistant Professor, Department of Geography, Nirmala College for Women, Coimbatore, India

ABSTRACT

Urbanization is the term for the complex phase of population growth in towns and cities. As a result, the ratio of the renewable and non-renewable resources has changed. Water depletion is a major problem in developing countries like India, and water conservation is seen as a risky endeavor. The groundwater level has been depleted as a result of rapid urbanization. Groundwater depletion is regarded as one of the most pressing issues in this fast-paced country. In this concern, this study was carried out in the Coimbatore district to understand groundwater depletion from 2000 to 2015. For the period 2001 to 2016, the LULC changes were examined utilizing remote sensing and GIS technology. The study revealed a significant decrease in barren land and forest areas, as well as an increase in area under a water body, agricultural, and settlement. Furthermore, in 2015, the depth to water level slightly declined during the pre-monsoon period and increased during the post-monsoon period.

KEYWORDS: *Urbanization, Depletion, GIS, Remote Sensing & LULC (Land use Land Cover)*

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