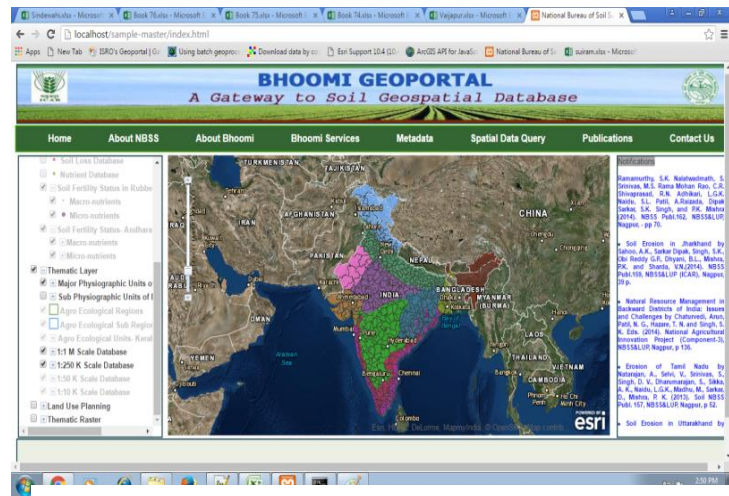


## Bhoomi Geo-portal

A Geo-portal is a web portal used to find and access the geographic information (geo-spatial information) and associated geographic services (display, editing, analysis, etc.) via internet. It is important for effective use of geographic information system (GIS) and a key element of Spatial Data Infrastructures (SDI). The importance of spatial databases in management and optimum utilization of natural resources is well recognized. Information on several soil parameters is available in the country and these are in scattered in different research papers and reports. Keeping this in view, a dedicated Geo-portal “Bhoomi” on soils is conceptualized and developed by collating geo-referenced soil and allied resources database in GIS (Fig.1). It is an effort to eliminate redundancies and duplication of efforts, and enforcing consistency, standards, and sharable protocols to build a cross-domain soil knowledge base for effective utilization of natural resources in the country. Further, Geo-portal provides platform for exchange of soils research data with national and international agencies for monitoring of soil quality and carrying out research in ecology, climate change and land use planning.



**Fig. 1.** Bhoomi Geoportal

In the Geo-portal Bhoomi (Fig. 1), the soil and site characteristics in terms of polygon, line and point data and administrative division of the country like boundaries of states, districts, tehsils and village are arranged in systematic manner and the database structure is kept open to link cadastral boundary. Soil maps of 1:1M, 1:250000, 1:50000 and 1:10000 scale; various thematic maps on natural resources depicting type, spatial distribution and severity of degradation and desertification; degradation in crop land, prime agriculture land, soil nutrient status map depicting area of sufficiency, deficiency and toxicity of nutrients in the country; area vulnerability to drought (type and severity) and flood (extent and severity) are structured in a systematic manner. Attempt has been made to depict potential area for crops and cropping pattern and horticultural crops in an organized manner. A framework has been developed for placing the information on agro-ecological zones to agro-ecological units via sub-regions and zones. The information available on the Bhoomi portal is also maintained on the digital India platform by the name of soil information system (Fig. 2) maintained by National Center of Geo-informatics (<https://ncog.gov.in/>). The information can be also visualized by querying system maintained in the portal.



**Fig. 2.** Soil Information System on Digital India Platform

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