

**1. Project Title:** NRC-Soil Resource Mapping (SRM) Project on 1:50K

**2. Scope & Objective:**

- Preparation of soil map at 1:50K
- Creation of Digital Soil Data

**3. Centre/Unit:** NESAC, Umiam, Meghalaya

**4. Funding Agency:** Soil and Land Use Survey of India (SLUSI)

**5. Study Area:** 15 districts of Assam

**6. Methodology:** The soil survey is being done based on base maps prepared from remotely sensed data and the standard soil survey procedures and data base will be created as per the terms of reference given by SLUSI. Landscape/geological boundary, physiographic unit, and land use/land cover map is taken from NRC-RGNDWM and LULC 50K project. Slope map was derived from ASTER DEM, Topomaps and LISS III images. Each map represents the factors which influence soil formation. All these maps are transferred to GIS environment and overlaid and used as base map for the survey. Based on variations of these factors, sites for profile digging are selected for detailed morphological study of the soils. The soil profiles are excavated upto a depth of about 1.5 meters or upto lithic or paralithic contact. The morphological characteristics of each soil profile are examined in detail and recorded in a standard format following the soil survey manual and guidelines supplied by SLUSI. Soil site information are also recorded. Horizon wise soils are collected from the profile for detailed physical and chemical analysis in the laboratory to incorporate the results with field observations and affirm soil taxonomy. The soil boundary will be delineated based on the boundary inferred by land form, geology, land use, slope and aspect.

**7. Data Used:** Multi-temporal LISS-III data acquired during kharif, rabi and zaid season of 2005-2006, topo maps and ground truth data

**8. Current Status:** Ongoing

**8. Duration:** 2 (two) years