

**1. Project Title:** Soil and land capability mapping for agricultural districts of the NE Region

**2. Scope & Objective:**

- Soil mapping of 49 agricultural districts in NE region on 1: 50,000 scale
- Land capability/suitability assessment for the above districts
- Identification of blocks/districts for intensive agriculture

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

**4. Funding Agency:** North Eastern Council (NEC)

**5. Study Area:** 49 agricultural districts of NER (Table 1)

Table1: No. of districts in different states of NER

State	No. of districts
Assam	23
Meghalaya	5
Mizoram	3
Tripura	4
Nagaland	3
Sikkim	1
Arunachal Pradesh	6
Manipur	4
<b>Total</b>	<b>49</b>

**6. Methodology:** The soil survey is being done based on base maps prepared from remotely sensed data and the standard soil survey procedures and a digital data base will be created. 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 is 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

**12. Duration:** Three years