

BENGALURU CENTRE

The Bengaluru Centre of Soil and Land Survey of India (SLUSI) is situated in the capital city of Karnataka state, famous as ‘Garden City’ as well as ‘Electronic City’ in the country with very pleasant weather condition. The Bengaluru Centre premises is located in the Kodigahalli area of northern Bengaluru. This location is very peaceful and beautiful and two institutions namely- University of Agricultural Sciences (UAS) and Bengaluru and National Centre for Biological Sciences (NCBS) are hardly two km away from the Centre.

The Centre having three storied building constructed in the year 2000, which is well-known as “Mrida Sarvekshan Bhawan” (Soil Survey Building). The ground floor of office building is designed for reception, driver’s room, store and inside parking of office vehicles. The first floor is having remote sensing and GIS laboratory, a part of field section, map room, two guest house units, soil processing laboratory, soil store rooms and a small canteen. The second floor having administrative section, chambers of Soil Survey Officer (SSO) and Assistant Soil Survey Officer’s (ASSO), Soil museum, Cartography section and a part of field section. The soil analysis laboratory, library, auditorium and meeting hall are situated on the third floor of the building.

The building and garden is protected by compound wall, having good space for parking of vehicles, a beautiful garden and a small temple situated underneath of a very old banyan tree. The garden having a variety of trees viz., long palm trees, arecanut, cashewnut, coconut, mango, jackfruit, citrus, guava, almond, christmas tree, sandalwood, neem, datepalm, cycus, etc. and a number of flowers like rose, hibiscus, dieffenbachia, dracena, peace lily, bougainvillea, money-plant etc. Some medicinal plants like basil, lemon grass, mint etc. are also planted in the garden. The golden Durant hedge gives a beautiful look for premises. Thus, Bengaluru Centre having well maintained office building with lush green vegetation which create calmative environment for working.



Fig. 1: View of Bengaluru Centre

Bengaluru Centre is one of the seven operating centres of Soil and Land Survey of India (SLUSI) in the country to cover southernmost region of India including Karnataka, Tamil Nadu, Kerala, Pondicherry, part of Andhra Pradesh and part of Maharashtra state for conducting different types of general as well as specific purpose soil surveys (Detailed Soil Survey, Rapid Reconnaissance Survey, Soil Resource Mapping, Land Degradation Mapping etc.) and impart trainings to the user agencies as per their requirements. In this course, This Centre has generated huge scientific spatial and non-spatial database in the form of hard copies and in the digital format (reports and maps). These reports utilized by State Governments for implementation of various developmental programs. This Centre has also generated state-wise micro watershed atlas comes under jurisdiction. The part or full of RVP Catchment namely covers by Bengaluru centre are Kunda, Nagarjunsagar, Kabini, Lower Bhavani, Tungbhadra, Vaigai-Periyer etc.

Presently, the Centre is also supporting nations Soil Health Management (SHM) under National Mission for Sustainable Agriculture (NMSA) to make agriculture more productive, sustainable and climate resilient; to conserve natural resources; to adopt comprehensive soil

health management practices; to optimize utilization of water resources; etc being part of the PMKSY (Pradhan Mantri Krishi Sinchai Yojana), KKA-1 & KKA-2 (Krishi Kalyan Abhiyan) and SHC (Soil Health Card Scheme).

This Centre is equipped with the latest technology in Geographic Information Lab (GIS), Soil Analytical Lab (SAL), Remote Sensing Lab (RSL), Digital Cartographic Lab (DCL) and Global Positioning System (GPS during field visit to locate and mark observation points).

Presently there are 6 field parties working under the supervision of one Assistant Soil Survey Officer (ASSO) and one Soil Survey Officer (SSO) to achieve allotted target.

FACILITIES

1. Remote Sensing & GIS Laboratory

1.	Hardware		Quantity
A.	Computers		
	i.	Work station Computer (HP xw 400)	3
	ii.	Dell i5 PC	2
	iii.	HP i7 PC	1
	iv.	HP i5 PC	2
	v.	GPS	4
B.	Scanner and Digitizer		
	i	HP scanjet 4570c (colour)	1
	ii	Repro Scanner cum Printer (36" size) Large Formate)	1
C.	Printers & Xerox Machine		
	i.	HP Laserjet 1106	1
	ii.	Epson A3 size inkjet printer	1
	iii.	Xerox machine (Workcentre M 123)	1
2.	Software		
	i.	ArcGIS version 10 software	1 License
	ii.	Autocad map software	2
	iii.	ERDAS Imagine software	2
	iv.	Microsoft Office 2016	1
3.	Internet and LAN		1

	i.	BSNL Internet	
	ii.	All workstation and PCs are connected through LAN	
	iii.	5 KVA UPS for power supply	1
4.	Visual Interpretation		
	a.	Light tables for image interpretation	
	b.	Stereoscope for aerial photo interpretation	



Fig. 2: Panoramic view of Remote Sensing and GIS Laboratory

2. Photo Processing Laboratory and Printing Cell

This Centre has no Photo Processing Laboratory and Printing Cell separately. The Geo-coded imageries are printed with the help of Colortrac Repro MFR scanner cum printer. The technical reports are printed with the help of Epson Printer.

3. Soil Analytical Laboratory

The Soil Analytical Laboratory is equipped physical and physico-chemical analysis of soil samples. The instruments and equipment's available in the laboratory are enlisted in table below:

Sl. No.	Name of Instrument/Equipment	Quantity
1	Agate Mortar & Pestle	2
2	Mortar & Pestle (metal)	4
3	Remi Centrifuge (R-23)	1
4	Chemical Balance	2

Sl. No.	Name of Instrument/Equipment	Quantity
5	Electronic Balance	3
6	Physical Balance	1
7	Silco Niddle Type Balance	1
8	End to End Shaker	1
9	Flame Photometer	1
10	Hot Plate	2
11	Horizontal Shaker	1
12	Hydrometer	2
13	Liquid Limit Device	1
14	Oven	2
15	pH Meter	2
16	Stop Watch	1
17	Vacuum Pump	1
18	Vacuum System Connector Buchner Funnel	1
19	Yoder Apparatus	1
20	Nitrogen Distillation Unit	1
21	Indane Gas Cylinder	4
22	Regulator Gas Cylinder	2
23	Vernier Caliper	1
24	Pressure Plate Membrane Unit with Compressor	1 (Not working)
25	Moisture Box	221
26	Nickel Dish	22
27	Nickel Crucible with Lid	23
28	Remi Speed Regulator	1
29	Electrical Conductivity Meter	2
.30.	Kemi Rotatory Shaker	1
31	Spectrophoto meter	1 (Not working)
32	Magnetic Stirrer Hot Plate	1
33	Nitrogen Distillation Unit (Pelican)	1
34	Water Softener with Stand	1
35	Refrigerator LG	2 (One not working)
36	Stabilizer (For Distillation Unit)	1
37	Electrical Balance (Single Pan)	1 (Not working)
38	Burner (Bunsen)	6

Sl. No.	Name of Instrument/Equipment	Quantity
39	Spot Galvanometer	1 (Not working)
40	Stainless Steel Pan	4
41	Burette Stand	10
42	Single Distillation Unit (Glass Horizontal)	1 (Not working)
43	Core Sampler with Stopper	10



Fig. 3: View of Soil Analytical Laboratory

4. Cartography Laboratory

Sl. No.	Name of Instruments	Purpose
1.	Ammonia Printing Machine -Kilburn 840	For printing of maps for publication of reports and day to day use in Carto. GIS Labs.
2.	Optical Reflecting Projector	This is an optical device that projects an image (or moving images) onto a surface, commonly a projection screen.
3.	Light Table -18x49 inch	A light table is a viewing device that is used to review photographic film or artwork placed on top of it.
4.	Magnascope	A large optical instrument used to get a close-up of small objects.
5.	Lamination Machine	Preservation & archival purpose for long lasting of different types of reference and thematic maps.

5. Library

The Centre maintains a library containing selected reference books on soil science, soil survey, remote sensing and other allied disciplines. Copies of the Soil Survey Reports and other publication of SLUSI as well as those received from other central and state organizations are available in the library. The total number of reference books available in the library is

6. Soil Museum

The Centre having a soil museum where different type of soils, soil monoliths, rocks (e.g. granite, basalt, shale, slate, limestone, sandstone, quartzite, laterite, sillimonite, kaolinite, amphibolite etc.) and various soil resource photographs have been demonstrated.



Fig. 4: View of Soil Museum

Documentation and User Services

The Centre publishes the results of various kinds of soil survey and special projects in the form of soil and land use survey reports and maps. Up to the year 2018-19, **306** reports have been published by this Centre, out of which there are **198** reports of Detailed Soil Survey, **69** reports of Rapid Reconnaissance soil survey, **27** reports of Soil Resource Mapping Survey and **12** reports of Land Degradation Mapping. Micro watershed Atlas of eight States have been published by this Centre.

These reports are made available to the use agencies of state and central departments, agricultural universities/institution and related organizations for planning various developmental programs on soil and water conservation, water management, farm level planning, land reclamation etc.