Abstract

1.	**Surveyed area**	**:**	Almora district, Uttarakhand
2.	**Total area**	**:**	310445 ha
3.	**Geographical Extent**	**:**	29°25'33" & 29°38'46" North latitude 79°02'09" & 80°04'44" East longitude
4.	**Kind of Survey**	**:**	Soil Resource Mapping using Remote Sensing & GIS Techniques
5.	**Period of Survey**	**:**	2009-10

❖ **Soil Series/ Association Mapped and their Extent**

Mapping Symbol	Mapping Unit	Series Association			Area (ha)	Area (%)
1	CGf9c1	Lidha	Sauna	Balwakhan	42505	13.69
2	CGf9c2	Kondu	Charma	Dharamgarh	109387	35.24
3	CGf9c3	Almora	Bhatuli	Khand	18411	5.93
4	CGf9d1	Pirsal	Maniger	-	16936	5.46
5	CGf7a1	Gwalkot	Jasauli	Khan	57176	18.42
6	CGf7c1	Jageshwar	Gumla	Sat_Tal	390	0.13
7	CGf7c2	Dharamgarh	Jageshwar	Charma	1229	0.40
8	CGf5d1	Chamsali	Mason	-	583	0.19
9	CGf5a1	Dunaghat	Karn_Karayat	Sonla	23760	7.65
11	CGf5c1	Sat_Tal	Jageshwar	-	704	0.23
12	CGg3a1	Mondal	Budna	-	8532	2.75
13	ALb3a1	Nayagaon	Motalhaldu	-	2960	0.95
14	ACj3a1	Nagrasu	Saikot	-	260	0.08
23	SDf7a1	Nainital	Mangoli	-	9329	3.00
24	SDf7d1	Saneh	Ramgarh	-	1747	0.56
25	SDf7c1	Papidanda	Kumbichaur	Delighati	5068	1.63
26	SDf7c2	Pokharao	Kumbichaur	Papidanda	5003	1.61
27	SDf5a1	Kilolighat	Saneh	-	783	0.25
29	SDf5c1	Papidanda	Delighati	Kalagarh	1433	0.46
9898	Habitation	Habitation	Habitation	Habitation	1184	0.38
9999	Waterbodies	Waterbodies	Waterbodies	Waterbodies	3065	0.99
TOTAL					**310445**	**100.00**

❖ **Spatial Extent of Landscape/Physiography Class**

Landscape	Physiography	Area (ha)	Area (%)
Alluvium (AL)	Alluvial plains (b)	2960	0.95
Alluvium Colluviums (AC)	River terraces (j)	260	0.15
Complex Geology (CG)	Narrow mountain valley (g)	8532	2.75
Complex Geology (CG)	Undifferentiated mountain side slope (f)	271081	87.32
Sandstone (SD)	Undifferentiated mountain side slope (f)	23363	7.53
Miscellaneous		4249	1.30
TOTAL		**310445**	**100.00**

❖ **Spatial Extent of Slope Class**

Slope classes and Code	Slope Range	Area(ha)	Area (%)
Very gently sloping to gently sloping (3)	1-5%	11752	3.79
Moderately sloping to strongly sloping (5)	5-15%	27263	8.78
Moderately steep to steep sloping (7)	15-33%	79942	25.75
Very steep to extremely steep (9)	33-50% and above	187239	60.31
Miscellaneous	-	4249	1.37
TOTAL		**310445**	**100.00**

❖ **Spatial Extent of Major Land Use/ Land Cover**

Major Land Use	Area (ha)	Area (%)
Agriculture (a)	102800	33.11
Forest (c)	184130	59.31
Open scrub (d)	19266	6.21
Miscellaneous	4249	1.37
TOTAL	**310445**	**100.00**

❖ **Spatial Extent of Land Capability Class**

Land Capability Class (LCC)	Area (ha)	Area (%)
Land Capability Class II	2960	0.95
Land Capability Class II-III	8792	2.83
Land Capability Class III-IV	24543	7.91
Land Capability Class IV	583	0.19
Land Capability Class VI	18683	6.02
Land Capability Class VII-VIII	66505	21.42
Forest	184130	59.31
Miscellaneous	4249	1.37
TOTAL	**310445**	**100.00**

Salient Features:

1. Major area (87.32 %) covered in the survey area is under complex geology having undifferentiated mountain side slope followed by sandstone having undifferentiated mountain side slope (7.53 %).

2. The soils found in the area have been classified under three orders i.e. Entisols, Inceptisols and Mollisols. All the thirty eight soil series identified in the area have been further classified into 7 Suborders, 10 Great Groups, 13 Subgroups and 23 Families.

3. The surveyed area fall under four major physiographic subdivisions viz. alluvial plain, river terraces, narrow mountain valley and undifferentiated hill side slopes. Maximum area is covered under undifferentiated mountain side slopes.

4. As far as land use/ land cover is concerned, forest dominated the area with 59.31 % of total geographical area. Next to forest, agriculture is the mainstay of the area representing 33.11 % area.

5. The area is classified on the basis of Land Capability Class (LCC). Forest was found to dominate the area with 59.31 % followed by class VII-VIII (21.42 %) and class III-IV (7.91 %).