

Report on Soil Resource Mapping of District Una, Himachal Pradesh

Abstract

1. **Surveyed area** : Una district, Himachal Pradesh
2. **Total area** : 1,53,866 ha
3. **Geographical Extent** : 31°17'52'' & 31° 52'00'' North latitude
75°58'02'' & 76°28'25'' East longitude
4. **Kind of Survey** : Soil Resource Mapping using Remote Sensing Technique
5. **Soil Series/Association mapped and their extent:**

Sl. No.	Mapping Symbol	Mapping Unit	Series Association	Area (ha)	Area (%)
1	418	SDx5a1	Ladwada-Tangh	293	0.19
2	419	SDx3a1	Tangh-Ladwada	6441	4.19
3	420	SDx3a2	Tangh-Ladwada	1069	0.69
4	421	SDx2a1	Tangh-Ladwada	757	0.49
5	422	SDf7c1	Kairia Nalwari-Ronah-Deothi	25779	16.75
6	423	SDf7c2	Masrur-kairia nadwari-Malhanta	15070	9.79
7	424	SDf7d1	Masrur-Deothi-kairia nadwari	29289	19.04
8	425	SDf7d2	Masrur-Deothi	3384	2.20
9	426	SDf5d1	Shore-kairia Nalwari-Ronah	1217	0.80
10	427	ALb1a1	Lalehri	14050	9.13
11	428	ALb2a1	Lalehri-Bharmar	19203	12.48
12	429	ALb2b1	Lalehri-Bharmar	32	0.02
13	430	ALb1d1	Lalehri-Bharmar	3820	2.48
14	431	ALb3a1	Lalehri	13454	8.74
15	432	SDf7a1	Pandhwar-Ronah-Sanaur	979	0.64
16	433	SDf9c1	Kangra-Chamba border Hills-Basa Sughwalan	5222	3.39
17	434	ALb4a1	Bharmar-Lalehri	140	0.09
18	435	ALb3d1	Bharmar-Lalehri	2630	1.71
19	436	SDx5d1	Ladwada	70	0.05
20	437	Aln4d1	Bharmar-Lalehri	86	0.06
21	9898	Habitation		908	0.59
22	9999	Waterbodies		9973	6.48
Total				153866	100.00

6. Spatial Extent of Landscape/Physiographic Classes

Landscape	Physiography	Area (ha)	Area (%)
Alluvium	Alluvial plains (ALb)	53329	34.66
Alluvium	Flood plains (Aln)	86	0.06
Sandstone	Piedmont planes (SDx)	8630	5.61
Sandstone	Undifferentiated mountain side (SDf)	80940	52.60
Miscellaneous		10881	7.07
	Total	153866	100.00

7. Spatial Extent of Slope Classes

Slope classes and code	Slope Range	Area (ha)	Area(%)
Nearly level (1)	0-1%	17870	11.61
Nearly level to very gently sloping (2)	1-3%	19992	12.99
Very gently sloping to gently sloping (3)	1-5%	23664	15.39
Gently sloping to moderate sloping (4)	3-10%	226	0.15
Moderately sloping to strongly sloping (5)	5-15%	1510	0.98
Moderately steep to steep sloping (7)	15-33%	74501	48.42
Very steep to extremely steep (9)	33-50% and above	5222	3.39
Miscellaneous		10881	7.07
	TOTAL	153866	100.00

8. Spatial Extent of Major Land Use/ Land Cover

Major Land Use	Area (ha)	Area (%)
Agriculture (a)	56386	36.65
Plantation (b)	32	0.02
Forest (c)	46071	29.94
Open scrub (d)	40496	26.32
Miscellaneous	10881	7.07
TOTAL	153866	100.00

9. Spatial Extent of Soil Erosion Classes

Erosion	Area (ha)	Area (%)
None to slight water erosion	87235	56.70
Slight to moderate erosion (e1-e2)	21790	14.16
Moderate water erosion (e2)	1217	0.79
Moderate to severe erosion (e2-e3)	32743	21.28
Miscellaneous	10881	7.07
TOTAL	153866	100.00

10. Spatial Extent of Land Capability Classes

Land Capability Classes (LCC)	Area (ha)	Area (%)
Land Capability Class - II	34042	22.12
Land Capability Class - III	21257	13.82
Land Capability Class - IV	1119	0.73
Land Capability Class - VI	7823	5.08
Land Capability Class - VII	32673	21.23
Forest	46071	29.94
Miscellaneous	10881	7.07
TOTAL	153866	100.00

11. Soils of the area have been classified under two Orders i.e. Entisols and Inceptisols and all the fourteen Soil Series identified in the area have been further classified into two Suborders; two Great Groups; five Subgroups and ten Families.