

सारांश / ABSTRACT

- 1. Survey Area** : “4E4C5a1 to a2, 4E4C5b2 to b5, 4E4C5c1 (part), c2,c3, 4E4C5d1 to d2, 4E4C5d7 to d9, 4E4C5f2 (part), f3, f4, 4E4C5h1 to h4, 4E4C5j1 to j7” micro watersheds of Pochampad Catchment (Jayakwadi, River Valley Project), Tahsil- Khuldabad and Kannar, Dist-Aurangabad, Maharashtra.
सर्वेक्षित क्षेत्र
- 2. Total Area Mapped and Reported** : 31,056 ha हेक्टेयर
मैप किया गया क्षेत्रफल
- 3. Base map used** : 1. High resolution satellite data
उपयोग किये आधार नक्शे : on 1: 10,000 Scale
उच्च संकल्प उपग्रह छवि (मापक १ : १०,०००)
2. Cadastral maps on 1: 4,000 Scale
ग्राम भूकर मानचित्र (मापक १:४,०००)
- 4. Geographical Location** : 19° 55' - 20° 6'N Latitude उत्तर अक्षांश
भौगोलिक स्थिति 74° 52' - 75° '11' E Longitude पूर्व देशांतर
- 5. Kind of Survey** : Detailed Soil Survey विस्तृत मृदा सर्वेक्षण
सर्वेक्षण का प्रकार
- 6. Period of Survey** : November' 2013 to December 2013
सर्वेक्षण की अवधि नवम्बर, २०१३ से दिसम्बर, २०१३
- 7. Agro climatic Zone** : Western plateau and hill region (IX)
आद्रता जलवायु क्षेत्र पश्चिमी पठार एवं पर्वत श्रेणी (ज़ोन- IX)

8. Micro-watershed wise distribution of area (in ha) in different soil series. विभिन्न सूक्ष्म-जलग्रहण क्षेत्र एवं मृदा श्रेणी के अंतर्गत क्षेत्रफल (हे. में)

Series Name	Area (ha)	Area (%)	4E4C5a1-2	4E4C5b2-5	4E4C5c1(p),2,3	4E4C5d1-2	4E4C5d7-9	4E4C5f2(p),f3-4	4E4C5h1	4E4C5h2-4	4E4C5j1-2	4E4C5j3-5	4E4C5j6-7
Akhatwada	787	2.5	-	381	-	241	165	-	-	-	-	-	-
Ambeloid	1073	3.5	-	-	-	-	-	-	-	28	251	496	298
Balanagar	3440	11.1	40	254	236	799	543	118	299	310	84	214	543
Chincholi	1734	5.6	-	-	-	-	-	456	-	190	294	333	461
Jambhali	1160	3.7	295	-	-	-	-	187	-	473	28	113	64
khuldabad	833	2.7	-	315	-	6	-	245	-	44	-	112	111
Lakhegaon	11514	37.1	473	136	1147	2491	1309	821	797	1850	324	1207	959
Nilisgaon	1662	5.4	-	-	-	37	78	565	-	314	129	463	76
Petamandi	816	2.6	-	164	-	339	146	-	-	45	101	21	-
Upla	645	2.1	-	-	-	-	-	227	-	-	-	5	413
Wava	5621	18.1	951	489	168	793	245	939	-	940	330	205	561
Misc.	1771	5.7	93	79	110	199	42	100	155	179	105	570	139
Total	31056	100.0	1852	1818	1661	4905	2528	3658	1251	4373	1646	3739	3625
Area (%)	100		6.0	5.9	5.3	15.8	8.1	11.8	4.0	14.1	5.3	12.0	11.7

9. Micro-watershed wise Distribution of Area (in ha) under various Land Capability units (LCU): विभिन्न भूमि क्षमता वर्गीकरण एवं सूक्ष्म-जलग्रहण क्षेत्र के अंतर्गत क्षेत्रफल (हे. में)

Series Name	Area (ha)	Area (%)	4E4C5a1-2	4E4C5b2-5	4E4C5c1(p),2,3	4E4C5d1-2	4E4C5d7-9	4E4C5f2(p),f3-4	4E4C5h1	4E4C5h2-4	4E4C5j1-2	4E4C5j3-5	4E4C5j6-7
Ils	393	1.3	-	2	154	183	54	-	-	-	-	-	-
Iles-1	10864	35.0	561	156	966	2278	1376	729	717	1802	239	1008	1032
Iles-2	3246	10.5	169	-	156	315	189	253	214	603	172	500	675
Illes-1	3148	10.1	699	185	113	333	92	415	-	393	308	291	319
Illes-2	1568	5.0	38	142	63	344	141	253	84	200	-	31	272
Illes-3	2996	9.6	252	244	25	282	98	524	-	569	216	278	508
IVes-1	688	2.2	40	90	44	170	92	118	81	28	25	-	-
IVes-2	550	1.8	-	60	30	178	55	-	-	6	57	132	32
IVes-3	222	0.7	-	-	-	-	-	88	-	103	4	27	-
IVes-4	1870	6.0	-	-	-	37	26	679	-	273	125	471	259
Vles-1	1304	4.2	-	-	-	-	52	254	-	128	294	298	278
Misc.	1771	5.7	93	79	110	199	42	100	155	179	105	570	139
Forest	2436	7.8	-	860	-	586	311	245	-	89	101	133	111
Total	31056	100.0	1852	1818	1661	4905	2528	3658	1251	4373	1646	3739	3625
Area (%)	100		6.0	5.9	5.3	15.8	8.1	11.8	4.0	14.1	5.3	12.0	11.7

10. Sub-watershed wise Distribution of Area (in ha) under various Erosion Classes: विभिन्न भू-क्षरण वर्गों एवं सूक्ष्म-जल ग्रहण क्षेत्रों के अंतर्गत क्षेत्रफल (हे. में)

Erosion	Area (ha)	Area (%)	4E4C5a1-2	4E4C5b2-5	4E4C5c1(p),2,3	4E4C5d1-2	4E4C5d7-9	4E4C5f2(p),f3-4	4E4C5h1	4E4C5h2-4	4E4C5j1-2	4E4C5j3-5	4E4C5j6-7
None to slight erosion (e1)	393	1.3	-	2	154	183	54	-	-	-	-	-	-
Moderate erosion (e2)	23975	77.2	1719	740	1323	3589	1970	2941	1015	3943	1064	2606	3065
Severe erosion (e3)	4917	15.8	40	997	74	934	462	617	81	251	477	563	421
Misc.	1771	5.7	93	79	110	199	42	100	155	179	105	570	139
Total	31056	100	1852	1818	1661	4905	2528	3658	1251	4373	1646	3739	3625
Area (%)	100	-	6.0	5.9	5.3	15.8	8.1	11.8	4.0	14.1	5.3	12.0	11.7

11. Salient features मुख्य विशेषताएं :

- ❖ Out of the total surveyed area of 31,056 ha, about 50.2% (15,599 ha) area is covered under very deep soils followed by moderately deep and shallow soils covers an area of 24.1% (7,481 ha) and 24.1% (5,045 ha) respectively. The Deep Soil have coverage of 3.7% (1,160 ha) only.

कुल सर्वेक्षित क्षेत्र (३१,०५६ हेक्टेयर) का ५०.२% (१५,५९९ हेक्टेयर) बहुत गहरी भूमि, २४.१% (७,४८१ हेक्टेयर) मध्यम गहरी भूमि, २४.१% (५,०४५ हेक्टेयर) उथली भूमि एवं ३.७% (१,१६० हेक्टेयर) गहरी भूमि हैं।

- ❖ About 5.3% (1649 ha) of the total surveyed area occurs on hilly land with slope percentage ranging in between 10 to 33 %. The very gently to gently sloping land covers maximum area of 83.15% (25813 ha). Only 14.6% (1430 ha) area have moderately sloping Land.

कुल सर्वेक्षण में 5.3% (1,६४९ हेक्टेयर) ढलान प्रतिशत 10 से 33 के बीच में है। ८३.१५% (२५,८१३ हेक्टेयर) की क्षेत्र बहुत कम ढलान से कम ढलान वाली है। केवल 14.6% (१,४३० हेक्टेयर) क्षेत्र मध्यम ढलान वाली है।

- ❖ Out of total surveyed area of 77.2 % (23,975 ha) area suffers from moderate erosion. 1.3 % (393 ha) area have slight erosion and 15.8 % area suffers from Severe soil erosion hazards, which is to be reclaimed by proper soil conservation measures.

कुल क्षेत्रफल का लगभग ७७.२% (२३,९७५ हेक्टेयर) मध्यम भू-क्षरण से प्रभावित है और १.३% (३९३ हेक्टेयर) क्षेत्र गंभीर भू-क्षरण से प्रभावित है, जिसमें मिट्टी के स्वास्थ्य और अवनति रोकने के लिए निगरानी की जरूरत है। १.३% (३९३ हेक्टेयर) क्षेत्र मामूली कटाव के अंतर्गत है।

HOW TO USE SOIL SURVEY REPORT

The present report furnishes a detailed account of various characteristics of the surveyed area, like physiography, relief, geology, climate, natural vegetation, land use and soils. Description of the soil series recognized in the area, like detailed information on soil characteristics, classification, potentialities and limitations are given in the report. Interpretations of different soil mapping units for various applied aspects of agricultural development such as land use plans, soil and water management, soil conservation plans, identification of areas for afforestation, engineering applications, and eco-restoration and waste-land management have been given in different chapters. Different problems of the area have also been depicted and their corrective measures are thereby suggested. Soil survey interpretations for land capability class, soil and land irrigability class, hydrological grouping and paddy grouping are described in chapter 7.

In order to use the report, the user will locate the area of his interest on the soil map appended with the report. Permanent features like roads, village sites, streams and ponds etc. would help for location of specific area. On the map each soil unit has been delineated and represented by symbolic expression dealing with all technical description. The abbreviated symbol of mapping unit shows information about the name of soil series, soil depth, soil texture, land slope gradient, erosion condition and land surface features like gravelliness, stoniness or rockiness. It refers to a particular type of soil like an example P2d_E3SR that represents P - Petamandi series, 2- shallow depth, d- gravelly sandy loam texture of surface, E- Strong slope (10-15%), 3- severe erosion and SR - for severe stony and slightly rocky land.

The details of the soil mapping unit with description, extent in each sub-watershed and their multipurpose interpretations (like land capability units, soil and land irrigability classes, paddy soil grouping, hydrological grouping etc) have been shown in appendix I (Guide to soil mapping units).

The differentiating morphological characteristics of soil series are furnished in table 7 and the typifying pedon of soil series are described in Appendix II where detailed description of soils and morphological description of representative soil profiles along with their analytical data are given. Village-wise mapping units, their area extent, and present land use and management status, physiography, predominant slope, land use and land capability classification etc. are given in Appendix III.

For any clarification and comments, correspondence may be made to

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