

सारांश / **ABSTRACT**

<p>सर्वेक्षित क्षेत्र <i>Survey Area</i></p>	<p>: “4E4D3a1, b1-3, c1, c5, c6, d1, d2, q1-6, 4E4D4b1, b4, b7, b8, c2, c3. c4,c5, d1, d4, d5 and d6” micro-watersheds of Pochampad Catchment (Jayakwadi, RVP), Tehsils.- Kopargaon, Distt.- Ahmadnagar , Tehsils.- Vaijapur, Distt.- Aurangabad and Tehsils.- Yeola, Distt.- Nasik, Maharashtra state.</p>
<p>2. कुल क्षेत्रफल मैप किए गए Total Area Mapped and Reported</p>	<p>: 30,150 ha</p>
<p>3. आधार नक्शे <i>Base map used</i></p>	<p>: 1. उत्त्व संकल्प उपग्रह छवि (LISS IV) <i>मापक १:१०,०००</i> High resolution satellite image of LISS IV on 1: 10,000 Scale</p>
<p>4. भौगोलिक स्थिति <i>Geographical Location</i></p>	<p>: 19° 55' - 20° 04' उत्तर अक्षांश N Latitude 74° 30' - 74° 40' पूर्व देशांतर E Longitude</p>
<p>5. सर्वेक्षण का प्रकार <i>Kind of Survey</i></p>	<p>: विस्तृत मृदा सर्वेक्षण Detailed Soil Survey</p>
<p>6. सर्वेक्षण की अवधि <i>Period of Survey</i></p>	<p>: दिसम्बर, २०१५ से फरवरी, २०१६ December, 2015 – Feb, 2016</p>
<p>7. आद्रता जलवायु क्षेत्र <i>Agro climatic Zone</i></p>	<p>: पश्चिम पठार एवं पर्वत श्रेणी (ज़ोन-IX) Western plateau and hill region (IX)</p>

8. Micro-watersheds wise distribution of area under different soil series

विभिन्न सूक्ष्म-जलाग्रहण क्षेत्र एवं मृदा श्रेणी के अंतर्गत क्षेत्रफल:

Series Name	Area	% age	4E4D3a1	4E4D3b1	4E4D3b2	4E4D3b3	4E4D3c1	4E4D3c5	4E4D3c6	4E4D3d1	4E4D3d2	4E4D3q1	4E4D3q2	4E4D3q3	4E4D3q4	4E4D3q5	4E4D3q6	4E4D4b1	4E4D4b4	4E4D4b5	4E4D4b7	4E4D4b8	4E4D4c2	4E4D4c3	4E4D4c4	4E4D4c5	4E4D4d1	4E4D4d4	4E4D4d5	4E4D4d6
Ambeloid	484	1.6	-	-	-	-	127	74	-	55	102	-	-	-	-	-	-	-	-	-	-	-	-	113	13	-	-	-	-	-
Balanagar	1524	5.1	121	28	51	5	-	-	-	57	3	386	102	108	83	66	46	92	-	-	85	132	-	-	-	-	142	-	-	17
Bhulegaon	64	0.2	-	-	-	-	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chincholi	1134	3.8	-	-	-	-	-	55	111	49	204	-	-	-	249	-	262	-	-	-	-	-	-	39	-	89	-	-	-	76
Hingangaon	4500	14.9	814	375	260	-	-	-	-	-	-	78	-	-	-	-	-	592	139	316	451	197	289	39	105	110	569	38	122	6
Jambhali	2509	8.3	-	17	-	67	32	75	-	62	-	-	50	87	-	383	15	-	218	323	53	446	112	30	118	174	-	191	45	11
Khultabad	65	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65
Lakhegaon	3045	10.1	-	326	81	174	316	-	-	32	118	219	225	380	44	314	15	-	175	245	-	175	1	-	-	57	-	20	65	63
Mahalgaon	1262	4.2	-	-	-	-	-	214	197	246	185	-	-	115	80	67	158	-	-	-	-	-	-	-	-	-	-	-	-	-
Nilisgaon	1963	6.5	-	-	-	75	68	165	69	381	-	-	12	-	-	48	38	-	19	241	-	-	192	46	82	11	-	186	140	190
Petamandi	780	2.6	-	-	-	-	-	-	-	332	176	-	-	-	198	-	74	-	-	-	-	-	-	-	-	-	-	-	-	-
Upla	388	1.3	-	-	-	-	-	29	40	-	-	-	-	220	-	-	-	-	-	-	-	-	-	35	-	15	15	34	-	-
Wava	11049	36.6	-	131	-	209	385	181	261	441	318	225	7	580	211	372	435	-	223	744	101	305	872	324	779	740	-	563	1124	1518
Misc	1383	4.6	19	7	41	87	168	16	4	41	5	45	50	14	29	-	28	64	-	54	70	43	61	17	47	32	226	112	89	14
Total	30150	100	954	884	433	617	1096	809	682	1760	1111	953	446	1504	894	1250	1071	748	774	1923	760	1298	1562	608	1159	1228	971	1110	1585	1960
%age	100.0		3.2	2.9	1.4	2.0	3.6	2.7	2.3	5.8	3.7	3.2	1.5	5.0	3.0	4.1	3.6	2.5	2.6	6.4	2.5	4.3	5.2	2.0	3.8	4.1	3.2	3.7	5.3	6.5

9. Micro-watersheds wise Distribution of Area under various Land Capability units (LCU)

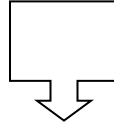
विभिन्न भूमि क्षमता वर्गीकरण एवं सूक्ष्म-जलग्रहण क्षेत्र के अंतर्गत क्षेत्रफल

LCU	Area	% age	Others	Ambeloid	Balanagar	Bhulegaon	Chincholi	Hingangaon	Jambhali	Khultabad	Lakhegaon	Mahalgaon	Nilisgaon	Petamandi	Upla	Wava
IIes-1	9326	30.9	-	-	17	-	-	3848	2293	-	2780	-	-	-	388	-
IIIes-1	1921	6.4	-	-	863	-	-	597	216	-	245	-	-	-	-	-
IIIes-2	7844	26.0	-	-	-	-	-	-	-	-	-	-	-	-	-	7844
IIIes-3	3252	10.8	-	-	-	64	-	-	-	-	-	-	-	-	-	3188
IIIes-4	298	1.0	-	298	-	-	-	-	-	-	-	-	-	-	-	-
IIIes-5	186	0.6	-	186	-	-	-	-	-	-	-	-	-	-	-	-
IVes-1	719	2.4	-	-	644	-	-	55	-	-	20	-	-	-	-	-
IVes-2	17	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	17
IVes-3	502	1.7	-	-	-	-	-	-	-	-	-	58	444	-	-	-
IVes-4	2625	8.7	-	-	-	-	-	-	-	-	-	1151	1474	-	-	-
IVes-5	894	3.0	-	-	-	-	894	-	-	-	-	-	-	-	-	-
Vles-1	261	0.9	-	-	-	-	163	-	-	-	-	53	45	-	-	-
Vles-2	77	0.3	-	-	-	-	77	-	-	-	-	-	-	-	-	-
Forest	845	2.8	-	-	-	-	-	-	-	65	-	-	-	780	-	-
Misc.	1383	4.6	1383	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	30150	100	1383	484	1524	64	1134	4500	2509	65	3045	1262	1963	780	388	11049
%age	100.0	-	4.6	1.6	5.1	0.2	3.8	14.9	8.3	0.2	10.1	4.2	6.5	2.6	1.3	36.6

10. Micro-watersheds wise Distribution of Area under various Erosion Classes

विभिन्न क्षरण वर्गों एवं सूक्ष्म-जल ग्रहण क्षेत्रों के अंतर्गत क्षेत्रफल:

Erosion	Area	%	4E4D3a1	4E4D3b1	4E4D3b2	4E4D3b3	4E4D3c1	4E4D3c5	4E4D3c6	4E4D3d1	4E4D3d2	4E4D3q1	4E4D3q2	4E4D3q3	4E4D3q4	4E4D3q5	4E4D3q6
Moderate erosion (e2)	26868	89.1	840	854	374	519	894	793	678	1340	904	832	370	1420	466	1189	892
Severe erosion (e3)	1899	6.3	95	23	18	11	34	-	-	379	202	76	26	70	399	61	151
Misc.	1383	4.6	19	7	41	87	168	16	4	41	5	45	50	14	29	-	28
Total	30150	100.0	954	884	433	617	1096	809	682	1760	1111	953	446	1504	894	1250	1071
%	100		3.2	2.9	1.4	2	3.64	2.7	2.3	5.84	3.68	3.2	1.5	4.99	3	4.15	3.55



Erosion	Area	4E4D4b1	4E4D4b4	4E4D4b5	4E4D4b7	4E4D4b8	4E4D4c2	4E4D4c3	4E4D4c4	4E4D4c5	4E4D4d1	4E4D4d4	4E4D4d5	4E4D4d6
Moderate erosion (e2)	26868	627	774	1869	674	1198	1501	591	1112	1167	694	961	1496	1839
Severe erosion (e3)	1899	57	-	-	16	57	-	-	-	29	51	37	-	107
Misc.	1383	64	-	54	70	43	61	17	47	32	226	112	89	14
Total	30150	748	774	1923	760	1298	1562	608	1159	1228	971	1110	1585	1960
%	100	2.5	2.6	6.38	2.5	4.31	5.18	2	3.84	4.07	3.2	3.68	5.26	6.5

11. Salient features मुख्य विशेषताएं:

- ❖ कुल सर्वेक्षित क्षेत्र 30150 हे. का लगभग 9457 हे. (31.4 प्रतिशत) क्षेत्र अति गहरी भूमि और 5204 हे. (17.3 प्रतिशत) क्षेत्र गहरी भूमि है। उथले तथा मध्यम गहरी मिट्टी के अंतर्गत क्रमशः 11597 हे. (38.5 प्रतिशत) एवं 2509 हे. (8.3 प्रतिशत) भूमि हैं।

Out of the total surveyed area of 30,150 ha, about 9457 ha (31.47 %) area is covered under very deep soils followed by shallow to moderately deep soils covers an area 5204 ha (17.3 %) and 11597 ha (38.5 %) respectively. The Deep Soil has coverage of 2509 ha (8.3%) only.

- ❖ कुल सर्वेक्षण में 922 हेक्टेयर (14.34 %) पहाड़ी क्षेत्र में आता है जिसका ढलान 10-33 प्रतिशत है। 27845 हेक्टेयर (31.37 %) बहुत कम ढलान से कम ढलान के अंतर्गत आता है। केवल 77 हेक्टेयर (0.3) क्षेत्र मध्यम ढलान के अंतर्गत है।

About 922 ha (14.34 %) 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 27845 ha (31.37%). Only 77 ha (0.3 %) area has moderately sloping Land.

- ❖ कुल सर्वेक्षित क्षेत्र 30150 हे. का 26868 हेक्टेयर (89.1%) क्षेत्र मध्यम कटाव से प्रभावित है। 1899 हेक्टेयर (6.3%) क्षेत्र गंभीर कटाव से प्रभावित है जिसे उचित मिट्टी संरक्षण संरक्षण के उपायों की जरूरत है।

Out of total surveyed area 26,868 ha (89.1%) area suffers from moderate erosion. 1899 ha (6.3%) area suffers from severe soil erosion hazards, which is to be reclaimed by proper soil conservation measures.

- ❖ कुल सर्वेक्षण में 18289 हेक्टेयर (76%) में सीमांत रूप से अनुकूलता के कारण इसके गंभीर सीमा की खेती के लिए अनुकूल और स्थायी आधार पर ऐग्री-सिल्वी-पास्टोरल खेती प्रणाली को अपनाने की आवश्यकता है।

About 18289 ha (76.0 %) of total surveyed area is marginally suited for cultivation due to its severe limitation and required adoption of Agri-Silvi-Pastoral farming system on sustainable basis.

- ❖ भूमि क्षमता क्लास-VI में लगभग 307 हेक्टेयर (1.0%) भूमि, स्थायी भूमि प्रबंधन के लिए वृक्षारोपण चारागाह विकास की अपनाने की आवश्यकता है।

About 307 ha (1.0 %) land categorized under capability class-VI, requires adoption of plantation pasture development for sustainable land management.

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 8.

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 slightly 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. micro watershed 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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