

**Report on Detailed Soil and Land Use Survey of
4E4A2a, 2b, 2c, 2d and 2p Sub- watersheds of
Jayakwadi catchment(RVP), Taluka- Shevgaon &
Newasa, Distt-Ahmadnagar, Maharashtra State**

Nagpur Centre

**SOIL AND LAND USE SURVEY OF INDIA
(Department of Agriculture & Cooperation)
Ministry of Agriculture
Government of India
I.A.R.I. Buildings, New Delhi-110012**

Report on Detailed Soil and Land Use Survey of 4E4A2a, 2b, 2c, 2d and 2p Sub- watersheds of Jayakwadi catchment(RVP), Taluka- Shevgaon & Newasa, Distt-Ahmadnagar, Maharashtra State

ABSTRACT

1. Survey Area : Report on Detailed Soil and Land Use Survey of 4E4A2a, 2b, 2c, 2d and 2p Sub- watersheds of Jayakwadi catchment, Taluka- Shevgaon & Newasa, Distt-Ahmadnagar (Maharashtra)
2. Total Area Mapped and Reported : 33,697 ha
3. Base map used :
 1. Aerial photographs on 1: 20,000 Scale
 2. Cadastral maps on 1: 4,000 Scale
4. Geographical Location : 74°-14' to 75°-15' E, longitude
19°-21' to 19°-37' N, latitude
5. Kind of Survey : Detailed Soil Survey
6. Period of Survey : April 2012 to May 2012
7. Agro climatic Zone : Western plateau and hill Region (Zone IX)

8. Micro-watershed wise distribution of soil series and their extent of area

Series Name	4E4A2a-1	4E4A2a-2	4E4A2a-3	4E4A2a-4	4E4A2a-5	4E4A2a-6	4E4A2b-1	4E4A2b-2	4E4A2b-3	4E4A2b-4	4E4A2b-5	4E4A2b-6	4E4A2b-7	4E4A2c-1	4E4A2c-2	4E4A2c-3	4E4A2c-4	4E4A2c-5
Ambeloid	193	633	173	371	411	368	9	79	599	246	443	409	302	494	216	233	142	245
Balanagar	0	0	0	0	0	0	0	0	0	0	0	65	32	0	0	0	0	0
Hingangaon	0	0	0	0	0	0	266	33	0	0	0	0	0	0	0	0	0	0
Jambhali	0	96	182	11	181	0	0	0	65	215	169	59	20	146	134	39	93	128
Lakhegaon	0	128	160	0	170	11	566	185	517	48	0	259	180	49	98	171	123	62
Nilisgaon	338	323	93	397	284	555	0	32	469	403	350	332	99	319	402	292	574	732
Padali	0	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0
Misc	0	20	21	31	16	20	42		60	43	5	20	39	10	45	39	28	42
Total	531	1200	629	810	1062	954	883	329	1710	955	967	1144	713	1018	895	774	960	1209
% age	1.6	3.6	1.9	2.4	3.2	2.8	2.6	1.0	5.1	2.8	2.9	3.4	2.1	3.0	2.7	2.3	2.8	3.6

Series Name	4E4A2d-1	4E4A2d-2	4E4A2d-3	4E4A2d-4	4E4A2d-5	4E4A2d-6	4E4A2d-7	4E4A2d-8	4E4A2d-9	4E4A2p-3	4E4A2p-4	4E4A2p-5	4E4A2p-6	4E4A2p-7	4E4A2p-8	4E4A2p-9	Area
Ambeloid	143	581	157	340	401	234	316	474	267	616	484	60	633	516	446	705	11939
Balanagar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
Hingangaon	243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	542
Jambhali	0	0	142	145	177	138	132	35	152	56	291		451	162	79	4	3502
Lakhegaon	123	194	316	133	129	94	181	140	226	61	129		100	50	125	0	4728
Nilisgaon	44	153	305	194	167	223	452	274	346	143	102	20	217	688	678	1067	11067
Padali	0	0	14	0	0	0	41	458	149	0	0	0	0	0	0	0	703
Misc	5	44	56	16	31	20	31	69	26	97	89		29	33	41	51	1119
Total	558	972	990	828	905	709	1153	1450	1166	973	1095	80	1430	1449	1369	1827	33697

% age	1.7	2.9	2.9	2.5	2.7	2.1	3.4	4.3	3.5	2.9	3.2	0.2	4.2	4.3	4.1	5.4	100
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9. Micro-watershed wise distribution of area under various Land Capability Units (LCU)

Land Capability Unit	4E4A2a-1	4E4A2a-2	4E4A2a-3	4E4A2a-4	4E4A2a-5	4E4A2a-6	4E4A2b-1	4E4A2b-2	4E4A2b-3	4E4A2b-4	4E4A2b-5	4E4A2b-6	4E4A2b-7	4E4A2c-1	4E4A2c-2	4E4A2c-3	4E4A2c-4	4E4A2c-5
Ile-1	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0
Iles-1	0	33	10	0	21	11	247	33	0	0	0	0	0	0	91	0	41	0
IIle-1	0	0	0	0	0	0	0	0	0	0	0	40	32	0	0	0	0	0
IIles-1	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0
IIles-2	0	75	10	129	15	28	0	0	0	21	53	0	0	24	14	0	10	0
IIles-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IIIs-1	0	304	35	33	108	0	0	0	227	65	191	64	212	67	154	194	72	97
IIIs-2	193	254	128	209	288	340	9	79	372	160	199	345	90	403	48	39	60	148
IIs-1	0	125	114	0	149	0	0	0	265	0	0	136	0	0	0	0	0	0
IIs-2	0	66	218	11	181	0	585	185	317	263	169	177	195	195	141	210	175	190
IVes-1	305	286	93	235	251	451	0	32	366	313	315	238	69	209	316	267	412	465
IVes-2	33	37	0	139	16	104	0	0	103	48	0	94	47	110	0	25	104	242
Vles-1	0	0	0	23	17	0	0	0	0	42	35	0	24	0	86	0	58	25
Misc	0	20	21	31	16	20	42	0	60	43	5	20	39	10	45	39	28	42
Total	531	1200	629	810	1062	954	883	329	1710	955	967	1144	713	1018	895	774	960	1209
% age	1.6	3.6	1.9	2.4	3.2	2.8	2.6	1.0	5.1	2.8	2.9	3.4	2.1	3.0	2.7	2.3	2.8	3.6

Land Capability Unit	4E4A2d-1	4E4A2d-2	4E4A2d-3	4E4A2d-4	4E4A2d-5	4E4A2d-6	4E4A2d-7	4E4A2d-8	4E4A2d-9	4E4A2p-3	4E4A2p-4	4E4A2p-5	4E4A2p-6	4E4A2p-7	4E4A2p-8	4E4A2p-9	Area
Ile-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Iles-1	114	0	0	0	28	0	0	0	0	0	0	0	71	0	42	0	742
IIle-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
IIles-1	0	0	73	13	0	0	0	0	0	0	0	0	0	0	0	0	96
IIles-2	0	0	0	0	0	0	0	0	0	0	46	0	19	0	55	33	532
IIles-3	0	44	0	60	54	0	0	0	0	0	0	0	0	0	21	0	179
IIIs-1	74	488	0	217	145	55	170	222	89	211	111	10	196	84	0	0	3895
IIIs-2	69	49	157	63	202	179	146	252	178	405	327	50	418	432	370	672	7333
IIs-1	118	0	0	0	0	16	133	140	219	61	91	0	383	0	0	0	1950
IIs-2	134	194	385	265	278	216	180	35	159	56	329	0	97	212	162	4	5984
IVes-1	44	153	319	194	147	223	371	609	329	107	102	20	203	527	258	887	9116
IVes-2	0	0	0	0	20	0	122	123	166	0	0	0	14	161	405	180	2293
Vles-1	0	0	0	0	0	0	0	0	0	36	0	0	0	0	15		361
Misc	5	44	56	16	31	20	31	69	26	97	89	0	29	33	41	51	1119
Total	558	972	990	828	905	709	1153	1450	1166	973	1095	80	1430	1449	1369	1827	33697
% age	1.7	2.9	2.9	2.5	2.7	2.1	3.4	4.3	3.5	2.9	3.2	0.2	4.2	4.3	4.1	5.4	100

10. Micro-watershed wise distribution of area under various erosion classes

Erosion	4E4A2a-1	4E4A2a-2	4E4A2a-3	4E4A2a-4	4E4A2a-5	4E4A2a-6	4E4A2b-1	4E4A2b-2	4E4A2b-3	4E4A2b-4	4E4A2b-5	4E4A2b-6	4E4A2b-7	4E4A2c-1	4E4A2c-2	4E4A2c-3	4E4A2c-4	4E4A2c-5
moderate erosion (e2)	531	652	231	712	591	934	256	144	841	542	567	747	243	746	469	331	627	855
none to slight erosion (e1)	0	528	377	44	438	0	585	185	809	328	360	377	407	262	295	404	247	287
severe erosion (e3)	0	0	0	23	17	0	0	0	0	42	35	0	24	0	86	0	58	25
Misc	0	20	21	31	16	20	42	0	60	43	5	20	39	10	45	39	28	42
Total	531	1200	629	810	1062	954	883	329	1710	955	967	1144	713	1018	895	774	960	1209
% age	1.6	3.6	1.9	2.4	3.2	2.8	2.6	1.0	5.1	2.8	2.9	3.4	2.1	3.0	2.7	2.3	2.8	3.6

Erosion	4E4A2d-1	4E4A2d-2	4E4A2d-3	4E4A2d-4	4E4A2d-5	4E4A2d-6	4E4A2d-7	4E4A2d-8	4E4A2d-9	4E4A2p-3	4E4A2p-4	4E4A2p-5	4E4A2p-6	4E4A2p-7	4E4A2p-8	4E4A2p-9	Total
moderate erosion (e2)	227	246	549	330	423	402	639	984	673	512	475	70	654	1120	1109	1772	20204
none to slight erosion (e1)	326	682	385	482	451	287	483	397	467	328	531	10	747	296	204	4	12013
severe erosion (e3)	0	0	0	0	0	0	0	0	0	36	0	0	0	0	15	0	361
Misc	5	44	56	16	31	20	31	69	26	97	89	0	29	33	41	51	1119
Total	558	972	990	828	905	709	1153	1450	1166	973	1095	80	1430	1449	1369	1827	33697

% age	1.7	2.9	2.9	2.5	2.7	2.1	3.4	4.3	3.5	2.9	3.2	0.2	4.2	4.3	4.1	5.4	100
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11. Salient features:

- ❖ Out of the total surveyed area of 33,697 ha, about 11,939 ha (35.43%) area is covered under moderately deep soils followed by 11,770 ha (34.93%) of shallow soils and about 5,367 ha (15.93%) which under very deep soils and 3,502 ha (10.39%) under deep soil.
- ❖ An area of 17,610 ha (52.67%) occur on very gentle slope and 3,075 ha (8.91%) area comes under gentle slope. An area of 9,910 ha (29.32%) occur on terraced lands, which are under cultivation.
- ❖ An area of 20,204 ha (59.96%) suffers from moderate erosion hazards. Only 361 ha (1.07%) is having problem of severe gullied erosion which needs immediate attention for soil and water conservation measures.
- ❖ The bushy forest area which is subject to unabated degradation due to illicit felling of trees/bushes needs immediate attention for afforestation programme besides taking proper soil-water conservation measures.