

Detailed Soil Survey and Land Use Plan of 2C3C1a1, a2, b1, b2, b3, c1, j9. k9, n1, n2, n3, n6, n7, p2, p3, p8, q6, r1, r2, r3, 2C3C2a1, a2, a3, a4, b1, b2, b3, c1, c2, c3, c4, c5 Microwatersheds of Sind Kunwari Catchment, Tehsil- Dabra, Ghatigaon & Chinor, District- Gwalior and Tehsil & District- Datia, Madhya Pradesh.

ABSTRACT

1. Surveyed Area : Microwatersheds 2C3C1a1, a2, b1, b2, b3, c1, j9. k9, n1, n2, n3, n6, n7, p2, p3, p8, q6, r1, r2, r3, 2C3C2a1, a2, a3, a4, b1, b2, b3, c1, c2, c3, c4, c5 Microwatersheds of Sind Kunwari Catchment, Tehsil Dabra, Ghatigaon, Chinor, District Gwalior, Tehsil Datia of District Datia, Madhya Pradesh.
2. Total Area Mapped and Reported : 23,743 ha
3. Type of Survey : Detailed Soil Survey
4. Geographical location : a) Latitude $25^{\circ} 45' 15''$ to $25^{\circ} 50' 20''$ N.
b) Longitude $78^{\circ} 05' 18''$ to $78^{\circ} 20' 21''$ E
5. Base map used :
 - High resolution satellite data on 1:12,500 scale
 - Cadestral Map on 1:4,000 scale
6. Topomaps used : SOI Toposheets on 1:50,000 scale
7. Agroclimatic Region : Bundelkhand Zone of Central Plateau & Hill region (VIII) as per planning Commission (Khanna, 1989)
8. Period of Survey : December 2013 to March 2014

9. Serieswise Distribution of Area (ha) under various Land Capability Classes.

S.No.	Series	II	III	IV	VI	VII	Area ha & %
1	Berkhera		625 2.6	899 3.8			1524 6.4
2	Bhainsnori				76 0.3		76 0.3
3	Dhokeri				2917 12.3	311 1.3	3228 13.6
4	Gount				3002 12.6		3002 12.6
5	Haripur		4779 20.1				4779 20.1
6	Kanchonpur	2035 8.6					2035 8.6
7	Karonda		1326 5.6				1326 5.6
8	Khoron	1014 4.3					1014 4.3
9	Lidhora		118 0.5				118 0.5
10	Magrora	1534 6.5					1534 6.5
11	Milghan	445 1.9					445 1.9
12	Nerwani	839 3.5					839 3.5
13	Non	947 4.0					947 4
14	Ranibagh	183 0.8					183 0.8
15	Setipura	1509 6.4					1509 6.4
16	Simiriya Tanka	38 0.2	47 0.2				85 0.4
	Misc						1099 4.6
	Total	8544 36.0	6895 29.0	899 3.8	5995 25.2	311 1.3	23743 100

10. Serieswise Area (ha) under Different Erosion Classes and their percentage.

S.No.	Series	Erosion				Area (ha)
		e1	e2	e3	e4	
1	Berkhera		625	899		1524
2	Bhainsnori			76		76
3	Dhokeri			3228		3228
4	Gount		3002			3002
5	Haripur			2413	2366	4779
6	Kanchanpur		2035			2035
7	Karonda		1326			1326
8	Khoron	1014				1014
9	Lidhora	118				118
10	Magrora	416	1118			1534
11	Milghan	445				445
12	Nerwani	839				839
13	Non		454	493		947
14	Ranibagh	183				183
15	Setipura	1509				1509
16	Simiriya Tanka		85			85
	Subtotal	4524	8645	7109	2366	22644
		19.1	36.4	29.9	10.0	95.4
	Misc.					1099
						4.6
	G. Total	4524	8645	7109	2366	23743
		19.1	36.4	29.9	10.0	100

11 Salient Features of the Area:

- Out of the total surveyed area of 23743 ha, about 13285 ha (56.0%) area is under very deep soils.
- Around 7109 ha (29.9%) area suffer from severe erosion hazard and 2366 ha (10%) area suffer very severe erosion which needs immediate integrated soil conservation measures.
- About 39.4% area is suitable for agriculture where 5678 ha (23.9%) area is marginally suitable for agriculture.
- Nearly 7632 ha (32.1%) area is under forest.
- About 1099 ha (4.6%) area is under miscellaneous.

How to Use Soil Survey Report

The report presents findings of the standard Detailed Soil Survey conducted in 2C3C1a1, a2, b1, b2, b3, c1, j9, k9, n1, n2, n3, n6, n7, p2, p3, p8, q6, r1, r2, r3, 2C3C2a1, a2, a3, a4, b1, b2, b3, c1, c2, c3, c4, c5 Microwatersheds of Sind Kunwari Catchment Tehsil Dabra, Ghatigaon, Chinor, District Gwalior, Tehsil Datia of District Datia, Madhya Pradesh. It provides comprehensive information on the soils of the area, their distribution, classification and inter-relationship. The data presented in this report can be used for various development purposes such as crop planning, preparation of soil and water conservation plans, identification of new areas for afforestation, engineering application, eco-restoration and waste land management etc.

The soil and land capability map is appended with the report. Each soil unit is delineated on the map and represented by a symbolic expression. The abbreviated symbol gives the information about the soil series name, effective depth, surface texture, slope, erosion, stoniness and rockiness. For example, the soil mapping unit KP5 d B2 represents

- KP - Kanchanpur soil series
- 5 - Depth of soil i.e., very deep (>100 cm) depth class
- d - Surface texture i.e., sandy loam
- B - Soil slope class i.e., very gently sloping (1-3% slope gradient)
- 2 - Soil erosion class i.e., moderate erosion.

The Land Capability Units indicated on the map are suggestive of the potentialities and limitations of the soils of the area. These are described in Chapter-6. The area of interest may be located on the map. Soil mapping units and particulars of interpretative groups may be noted down.

Detailed Soil Series description may be obtained by referring to Chapter 5 “Information on interpretations can be had from Chapter-8. Interested users can have the morphological description of the typifying pedon followed by soil test data from Appendix-II.

For broad soil conservation measures and proposed land use information for project planning Chapter-1 may be referred. The list of all mapping units with area under different microwatersheds and their interpretative grouping such as Land Capability classes, Soil and Land Irrigability, Paddy Soil Groupings, Hydrological Groupings are given in Appendix-I. “The Guide to Soil Mapping Units”. The users can refer to this statement for quick appraisal of the soil and land characteristics of the area surveyed.

The recommendations and suggestions given in report are of broad nature. However for specific site development and treatment local conditions and experience should be made use of.

For further clarification and explanation, communication may be made to:

1. The Chief Soil Survey Officer,
Soil & Land Use Survey of India,
IARI Buildings, Pusa Campus,
New Delhi-110 012.
Phone No. 011-25841263 Fax No. 011-25843811
email – csso-slusi@nic.in
2. The Soil Survey Officer,
Soil & Land Use Survey of India,
Plot No.32/456, B.A.U Campus, Kanke,
Dist. Ranchi, Jharkhand State,
Pin-834 006.
Phone: 0651-2450 186 Fax No.0651-2450 145
Email:- soiljhr@nic.in Website: www.slusi.dacnet.nic.in

