

**Report on Detailed Soil Survey and Land Use of  
4E5E4p', 4E5E4q and 4E5E4t Sub watersheds of  
Goshikhurd Catchment, Tahsil: Pandhurna and Multai,  
District: Betul and Chhindwara, Madhya Pradesh.**

**Regional Centre, Nagpur**

**SOIL AND LAND USE SURVEY OF INDIA  
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## **ABSTRACT**

- 1. Survey Area** : Sub watersheds **4E5E4p', 4E5E4q and 4E5E4t** Goshikhurd Catchment, Tahsil: Pandhurna and Multai, District: Betul and Chhindwara, Madhya Pradesh.
- 2. Total area mapped & reported** : 10,182 ha.
- 3. Geographical location** : 21<sup>0</sup> 38' to 21<sup>0</sup> 47' N latitude  
78<sup>0</sup> 21' to 78<sup>0</sup> 31' E longitude
- 4. Type of Survey** : Detailed Soil Survey
- 5. Period of Survey** : December, 2009 to March, 2010
- 6. Agro-climatic zone** : Central Plateau and Hills (VIII)
- 7. Base map used** : Cadastral map  
(Scale 16"= 1 mile)

## 8. Sub-watershed wise distribution of Soil series and their extent of Area (ha)

S.No.	Name of Soil Series	Total Area (ha)	%	Sub-watersheds		
				4E5E4p'	4E5E4q	4E5E4t
1.	Borgaon (BG)	148	1.45	92	48	8
2.	Dhokli (DK)	2825	27.75	840	336	1649
3.	Gwara (G)	38	0.37	11	0	27
4.	Kusumdhana (KD)	3276	32.17	1422	1045	809
5.	Mohi (MH)	3365	33.05	970	1734	661
6.	Semariya (SM)	36	0.35	0	0	36
7.	Tigaon (T)	221	2.17	161	29	31
8.	Misc	273	2.68	50	194	29
	<b>Total</b>	<b>10182</b>	<b>100.00</b>	<b>3546</b>	<b>3386</b>	<b>3250</b>

## 9. Sub-watershed wise Distribution of Area under various Land Capability Classes:

Land Capability Class	Area	%	Borgaon	Dhokli	Mohi	Semariya	Tigaon	Gwara	Kusumdhana
II	184	1.81	148	0	0	36	0	0	0
III	259	2.54	0	0	0	0	221	38	0
IV	2784	27.34	0	2784	0	0	0	0	0
VI	3310	32.51	0	0	3310	0	0	0	0
Miscellaneous	273	2.68	0	0	0	0	0	273	0
Forest	3372	33.12	0	41	55	0	0	0	3276
<b>Total</b>	<b>10182</b>	<b>100</b>	<b>148</b>	<b>2825</b>	<b>3365</b>	<b>36</b>	<b>221</b>	<b>311</b>	<b>3276</b>

## 10. Sub-watershed wise Distribution of Area under various Erosion Classes:

Series	Area	%	Moderate Erosion (e2)	Severe Erosion (e3)
Borgaon	148	1.45	148	0
Dhokli	2825	27.76	1729	1096
Gwara	38	0.37	38	0
Kusumdhana	3276	32.17	0	3276
Mohi	3365	33.05	2007	1358
Semariya	36	0.35	36	0
Tigaon	221	2.17	221	0
Misc	273	2.68	0	0
<b>Total</b>	<b>10182</b>	<b>100.00</b>	<b>4179</b>	<b>5730</b>

## 11. Salient features:

- ❖ The very shallow soils covered 3365 ha which is 33% of the total surveyed area.
- ❖ The shallow soils covered 6101 ha which is 59.9% of the total surveyed area of 10,182 ha.
- ❖ The moderately deep and deep soils covered 259 ha (2.5%) and 184 ha (1.81%) respectively.
- ❖ An area of 4179 ha (41%) suffers from moderate erosion hazards.
- ❖ An area of 5730 ha (56.3%) having the problem of severe erosion hazards.
- ❖ An area of 408 ha (4.0%) occurs on very gentle slope and 3225 ha (31.7%) area is under gentle slope.
- ❖ An area of 3000 ha (29.4%) occurs on moderately sloping and 2326 ha (22.9%) area is under strongly sloping.
- ❖ An area of 876 ha (8.6%) occurs on moderately steep sloping and only 74 ha (0.7%) area is under steep slope.
- ❖ An area about 3372 ha 33.12 % is under degraded forest needs immediate attention for afforestation programme.