

**Report on Detailed Soil Survey and Land Use of Ma3h Sub-watershed of
Mandira Dam Catchment, P.S. Simdega District, Simdega, Jharkhand**

Abstract

1. **Survey area** : *Ma3h Sub-watershed of Mandira Dam Catchment, P.S. Simdega District, Simdega, Jharkhand*
2. **Geo-graphical Location** : *Lies between 22° 31' 30" to 22° 37' 30" N Latitude and between 86° 42' 55" to 86° 46' 10" E Longitude*
3. **Type of Survey** : *Detailed Soil Survey*
4. **Base map used** : *Cadastral map*
5. **Scale of map** : *16"=1mile*
6. **Total area mapped** : *4410 ha*
7. **Agro Climatic Region** : *Eastern Plateau & Hills (Zone no. 7) as per National Planning Commission*
8. **Period of Survey** : *November, 2005 to February, 2006*

9. Names of Soil Series and their extent mapped in Ma3h Subwatershed :

Series_Name	No. of Mapping Unit	Area (ha.)	Percentage
Amra	3	1009	22.88
Balia	6	768	17.41
Barapani	2	35	0.79
Dumka	5	156	3.54
Jokbahar	10	1452	32.93
Karaya	3	529	12.00
Pahartoli	8	117	2.65
Pusaro	3	150	3.4
H.S	1	31	0.7
Tank	1	2	0.05
Reservoir	1	101	2.29
Nala/River	1	60	1.36
Total	46	4410	100

10. Distribution of Area under Different Depth Classes :

Depth Class	Area (ha.)	Percentage
Shallow	1165	26.42
Deep	117	2.65
Very deep	2934	66.53
Misc	194	4.40
Total	4410	100.00

11. Distribution of Area under Different Soil Erosion Classes :

Erosion Class	Area (ha.)	Percentage
None to slight	926	21
Moderate	1990	45.12
Severe	1300	29.48
Misc	194	4.40
Total	4410	100.00

12. Distribution of Area under Different Land Capability Classes :

Land Capability Class	Area (ha.)	Percentage
II	2426	55.01
III	407	9.23
IV	241	5.46
VI	133	3.02
VII	1009	22.88
Misc	194	4.40
Total	4410	100.00

13. Salient Features of the area:

- Nearly 3050 ha (69.2 %) area is covered by deep to very deep soils.
- Shallow soils covers 1165 ha (26.42 %) of the total surveyed area.
- About 1300 ha (29.48 %) area susceptible to severe water erosion and requires integrated soil conservation measures urgently.
- Nearly 3050 ha (69.18%) area under agriculture and about 1009 ha (22.87%) area under thin forest.
- About 156 ha (3.53%) land may be brought under agro-horticulture or pasture development.