

**Detailed Soil Survey and Land Use of 4G2D3f1; 4G2D3f2 and 4G2D3g1,  
Sub watersheds Hasdo Subcatchement, Mahanadi Catchment,  
Tehsil:-Katghora, Korba, Dist.:- Korba (Chhattisgarh State)**

**ABSTRACT**

- 1. Survey Area** : 4G2D3f1, 4G2D3f2 and 4G2D3g1  
Sub watershed, Tehsil:-Korba, Katghora,  
District :- Korba (C.G.).
- 2. a) Total Area Reported and Mapped** : 13,865 ha
- b) Type of Survey** : Detailed Soil Survey.
- c) Period of Survey** : May 2003 to June 2003
- d) Base map** : Aerial photographs
- e) Scale of base map** : 1:15,000 (Approximate)

**3. Soil series mapped and area covered by each series (ha)**

| Sr. No.                                                                                                 | Name of Soil Series and symbol | Total Area in ha. | Percentage (%) |
|---------------------------------------------------------------------------------------------------------|--------------------------------|-------------------|----------------|
| 1                                                                                                       | Amadand (A)                    | 250               | 1.8            |
| 2                                                                                                       | Bicchutola (BH)                | 927               | 6.7            |
| 3                                                                                                       | Bundeli (BL)                   | 544               | 3.9            |
| 4                                                                                                       | Malga (ML)                     | 1027              | 7.4            |
| 5                                                                                                       | Narayanpur (NR)                | 226               | 1.7            |
| 6                                                                                                       | Paradol (PR)                   | 5823              | 42.0           |
| 7                                                                                                       | Phulwaritola (PT)              | 3581              | 25.8           |
| 8                                                                                                       | Songura(S)                     | 164               | 1.2            |
| 9                                                                                                       | Tanki (TK)                     | 322               | 2.3            |
| <b>Total</b>                                                                                            |                                | <b>12,864</b>     | <b>92.8</b>    |
| Miscellaneous Area: (Village, River, Road, Tank, Restricted coal mines area, Restricted dump area etc.) |                                | 1001              | 7.2            |
| <b>GRANT TOTAL</b>                                                                                      |                                | <b>13,865</b>     | <b>100.0</b>   |

#### 4. Land Capability Classes.

| Sr. No             | Land Capability Class | Total Area in ha | Percentage (%) | Soil Series                                  |
|--------------------|-----------------------|------------------|----------------|----------------------------------------------|
| 1                  | II                    | 1653             | 11.9           | Malga, Narayanpur, Phulwaritola , Bicchutola |
| 2                  | III                   | 536              | 3.9            | Bicchutola, Phulwaritola, Songura, Tanki     |
| 3                  | IV                    | 3494             | 25.2           | Amadand, Bandeli, Phulwaritola Tanki         |
| 4                  | VI                    | 1163             | 8.4            | Paradol                                      |
| 5                  | VII                   | 391              | 2.8            | Paradol                                      |
| <b>Total</b>       |                       | <b>7237</b>      | <b>52.2</b>    |                                              |
| Area Under R.F.    |                       | 5627             | 40.6           |                                              |
| Misc. area         |                       | 1001             | 7.2            |                                              |
| <b>Grand Total</b> |                       | <b>13865</b>     | <b>100.00</b>  |                                              |

#### 5. Specific Problems.

| Sr. No             | Erosion Class                   | Total problematic area ha | Percentage (%) | Associated Series                                 |
|--------------------|---------------------------------|---------------------------|----------------|---------------------------------------------------|
| 1                  | Moderate Erosion                | 2532                      | 18.3           | Bicchutola, Bundeli, Phulwaritola, Songura, Tanki |
| 2                  | Severe Erosion                  | 8958                      | 64.6           | Amadand, Bundeli, Paradol, Phulwaritola, Tanki    |
| <b>Total</b>       |                                 | <b>11,490</b>             | <b>82.9</b>    |                                                   |
| 3                  | Other area under slight erosion | 1374                      | 9.9            |                                                   |
| 4                  | Misc. Area                      | 1001                      | 7.2            |                                                   |
| <b>Grand Total</b> |                                 | <b>13,865</b>             | <b>100.0</b>   |                                                   |

#### Salient features of the area:-

- About 8958 ha. (64.6%) land area is affected by severe erosion where as 2532ha. (18.3%) land is affected by moderate erosion.
- About 9.90 % (1374 ha.) area falls under none to slight erosion categories
- Very deep soil constitutes about 5785 ha. (41.7%) of total area. where shallow soil constitute about 6367ha. (45.9%) of the total area.
- About 5627 ha. (40.6%) surveyed area under Reserved Forest.