

Detailed Soil Survey and Land Use of Bb1g, Bb1h, Bb1j and Bb1k subwatersheds, Bajajsagar Catchment, Mahi R.V.P., Tehsil Kushalgarh and Banaswara, Distt. - Banaswara (Rajasthan) and Tehsil Bajna Distt. Ratlam (Madhya Pradesh).

A B S T R A C T

1. Surveyed area : Bb1g, Bb1h, Bb1j and Bb1k Subwatersheds of Bajajsagar Catchment.
2. Total Area Surveyed : 16,622 ha.
3. Location : Latitudes : $23^{\circ}15'$ - $23^{\circ}24'$ N
Longitudes : $74^{\circ}25'$ - $74^{\circ}34'$ E
4. Kind of Survey : Detailed Soil Survey
5. Period of Survey : Dec. 1989 to May 1990
6. No. of Villages surveyed : 59

7. Soil Series mapped and Subwatershedwise area covered by each Series.

(Area in ha)

| Sr.No. | Soil Series | Total Area (%) | Subwatersheds Area | | | |
|--------------------|---------------|------------------|--------------------|-----------------|-----------------|-----------------|
| | | | Bb1g (%) | Bb1h (%) | Bb1j (%) | Bb1k (%) |
| 1. | Daulatpura | 876 (5.3) | 146 (2.8) | 107 (2.4) | 204 (6.7) | 419 (11.3) |
| 2. | Jhirnia | 183 (1.1) | 44 (0.8) | 15 (0.3) | 22 (0.7) | 102 (2.7) |
| 3. | Kamalia Kheri | 1642 (9.9) | 426 (8.0) | 364 (8.0) | 278 (9.0) | 574 (15.5) |
| 4. | Mundri | 4947 (29.8) | 2182 (41.2) | 1715 (37.7) | 722 (23.6) | 328 (8.8) |
| 5. | Mathuri | 2105 (12.6) | 432 (8.2) | 774 (17.0) | 315 (10.3) | 584 (15.7) |
| 6. | Panchdaria | 5613 (33.8) | 1772 (33.4) | 1280 (28.1) | 1196 (39.0) | 1365 (36.8) |
| 7. | Runeja | 620 (3.2) | 159 (3.0) | 112 (2.5) | 155 (5.1) | 194 (5.2) |
| Total | | 15986 (96.2) | 5161 (97.4) | 4367 (96.0) | 2892 (94.4) | 3566 (96.0) |
| Miscellaneous land | | 636 (3.8) | 137 (2.6) | 181 (4.0) | 172 (5.6) | 146 (4.0) |
| Grand total | | 16622 (100.0) | 5298 (100.0) | 4548 (100.0) | 3064 (100.0) | 3712 (100.0) |

8. Subwatershed wise area under different Land Capability Classes.

(Area in ha.)

| Sr.No. | Land Capability Class | Total Area (%) | Subwatersheds | | | |
|--------|-----------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| | | | Bb1g (%) | Bb1h (%) | Bb1j (%) | Bb1k (%) |
| 1. | II | 799 (4.8) | 190 (3.6) | 108 (2.4) | 156 (5.1) | 345 (9.3) |
| 2. | III | 1622 (9.9) | 355 (6.7) | 449 (9.9) | 208 (6.8) | 610 (16.4) |
| 3. | IV | 2441 (14.7) | 546 (10.3) | 703 (15.5) | 455 (14.8) | 737 (19.8) |
| 4. | VI | 5177 (31.1) | 1932 (36.5) | 858 (18.8) | 1009 (32.9) | 1378 (37.1) |
| 5. | VII | 371 (2.2) | 283 (5.3) | 34 (0.7) | 54 (1.8) | - |
| | Forest Land | 5576 (33.5) | 1855 (35.00) | 2215 (48.7) | 1010 (33.0) | 496 (13.4) |
| | Subtotal | 15986 (96.2) | 5161 (97.4) | 4367 (96.0) | 2892 (94.4) | 3566 (96.0) |
| | Miscellaneous Land | 636 (3.8) | 137 (2.6) | 181 (4.0) | 172 (5.6) | 146 (4.0) |
| | Grand Total | 16622 (100.0) | 5298 (100.0) | 4548 (100.0) | 3064 (100.0) | 3712 (100.0) |

Salient Features :

- Out of the total area of 16,622 ha. only 4862 ha (29.4%) is suitable for agriculture.
- Nearly 2167 ha (13.0%) area have moderate and about 13769 ha (82.8%) area have severe erosion problems, within the 4 subwatersheds, all subwatershed recorded severe erosion ranging from 86.3% to 74.7% area. Maximum percentage is observed in Bb1g subwatershed.
- Very shallow to shallow soils cover an area of 11180 ha (67.2%) and are recommended for pasture and forest development, coupled with animal husbandry & poultry development programmes.
- Seven soil series have been identified in the survey area, but only Panchdaria, Mundri, Mathuri and Kamliakheri series are relatively extensive.