

Report on detailed soil survey and land use of Tb2a, Tb2b, Tb3h, Tb3j, Tb7a, Tb7b and Tb7c subwatersheds, Tungabhadra catchment, Koppal and Yelburga taluks, Raichur district, Karnataka State.

ABSTRACT

1. Surveyed area : Tb2a, Tb2b, Tb3h, Tb3j, Tb7a, Tb7b and Tb7c subwatersheds, Tungabhadra catchment in Koppal and Yelburga taluks, Raichur district, Karnataka State.
2. Total area mapped and reported: 25,397 hectares
3. Kind of survey : Detailed soil survey
4. Period of work : November 1988 to March 1989
5. Soil series mapped & total subwatershedwise area under each series

| Sl. No. | Name of the soil series | Subwatershedwise area in hectare % | | | | | | | Total area in ha. % |
|---------|-------------------------|------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------------|
| | | Tb2a | Tb2b | Tb3h | Tb3j | Tb7a | Tb7b | Tb7c | |
| 1. | Devlapur | 914 (21.8) | 108 (6.2) | 360 (8.7) | 235 (9.7) | - | 1758 (41.1) | 1355 (28.0) | 4730 (18.6) |
| 2. | Dyampur | 586 (14.0) | 289 (16.5) | 529 (12.8) | 407 (16.7) | 833 (22.1) | 80 (1.9) | 489 (10.1) | 3213 (12.6) |
| 3. | Kuknur | 78 (1.9) | 74 (4.2) | 52 (1.3) | 91 (3.7) | 45 (1.2) | 18 (0.4) | 379 (7.9) | 737 (2.9) |
| 4. | Lakshmapur | - | - | 506 (12.3) | 165 (6.8) | 1073 (28.4) | 243 (5.7) | 731 (15.1) | 2718 (10.7) |
| 5. | Mainahalli | 430 (10.2) | 351 (20.0) | 208 (5.0) | 172 (7.1) | 234 (6.2) | 52 (1.2) | 149 (3.1) | 1596 (6.3) |
| 6. | Manglapur | 287 (6.8) | 85 (4.8) | 84 (2.0) | 80 (3.2) | - | 635 (14.9) | 354 (7.3) | 1525 (6.0) |
| 7. | Ningapur | - | - | - | - | - | - | 64 (1.3) | 64 (0.3) |
| 8. | Sompur | 138 (3.3) | - | 229 (5.5) | 8 (0.3) | 107 (2.8) | 40 (0.9) | 78 (1.6) | 600 (2.4) |
| 9. | Thimmapur | 462 (11.0) | 382 (21.7) | 1624 (39.3) | 962 (39.6) | 1301 (34.5) | 267 (6.2) | 747 (15.5) | 5745 (22.6) |
| 10. | Uppanayakana-halli | 85 (2.0) | 6 (0.3) | 37 (0.9) | - | 60 (1.6) | 260 (6.1) | 27 (0.6) | 475 (1.9) |
| 11. | Varadapur | - | - | 50 (1.2) | 4 (0.2) | 4 (0.1) | 119 (2.8) | - | 177 (0.7) |
| 12. | Wadagenahalli | 560 (13.3) | 274 (15.6) | 326 (7.9) | 152 (6.3) | - | 574 (13.4) | 283 (5.9) | 2169 (8.5) |
| | Sub-total | 3540 (84.3) | 1569 (89.3) | 4005 (96.9) | 2276 (93.6) | 3657 (96.9) | 4046 (94.6) | 4656 (96.4) | 23739 (93.5) |
| | Misc. | 658 (15.7) | 188 (10.7) | 126 (3.1) | 156 (6.4) | 116 (3.1) | 229 (5.4) | 175 (3.6) | 1648 (6.5) |
| | Grand Total | 4198 (100) | 1757 (100) | 4131 (100) | 2432 (100) | 3773 (100) | 4275 (100) | 4831 (100) | 25397 (100) |

6. Area under different land capability classes

| Sl. No. | Land capability unit | Area | Percentage | Soil series |
|---------|----------------------|-------|------------|---|
| 1. | II | 13889 | 54.7 | Devlapur, Dyampur, Kuknur, Lakshmapur, Manglapur, Ningapur Thimmapur, Uppanayakanahalli |
| 2. | III | 7359 | 26.1 | Devlapur, Dyampur, Kuknur, Lakshmapur, Mainahalli, Ningapur, Thimmapur, Wadagenahalli |
| 3. | IV | 2501 | 9.8 | Dyampur, Kuknur, Lakshmapur, Mainahalli, Sompur, Varadapur |
| | Misc. | 1648 | 6.5 | |
| Total | | 25397 | 100.0 | |

Miscellaneous lands included in the area under village sites, Nallah, Roads, Tanks, Reservoirs etc.

7. Salient features and specific problematic areas:

- Twelve soil series are met within the surveyed area but only Devlapur, Dyampur, Lakshmapur and Thimmapur series are relatively extensive.
- Area having very deep soils and above 1% slope effected by severe erosion is 1419 hectares (5.6%).
- Area having very deep soils and above 3% slope affected by moderate erosion is 1419 hectares (5.6%)
- Area having moderately deep to deep soil and above 1% slope affected by severe erosion is 1035 hectares (4.1%).
- Area having moderately deep to deep soil and above 3% slope affected by moderate erosion is 3133 hectares (12.3%)
- Area under very deep soils having moderate condition of salinity is 475 hectares (1.9%).