

DETAILED SOIL SURVEY AND LAND USE OF PART GOMTI RIVER (Gmlb, Gmlc, Gmlg, Gm3a, Gm3h, Gm3j, Gm4a, Gm4c, Gm4d, Gm4f, Gm4g, Gm4h, Gm4k, Gm5a and Gm5g SUBWATERSHEDS) GOMTI CATCHMENT, TEHSILS HARDOI AND SANDILA, DISTRICT HARDOI AND TEHSIL MISHRIKH DISTRICT, SITAPUR, U.P.

## i. ABSTRACT

1. Survey area : Part of Gomti river (Gmlb, lc, lg, Gm3a, 3h, 3j, Gm4a, 4c, 4d, 4f, 4g, gh, 4k, Gm5a, 5g subwatersheds, Tehsil Hardoi- Sandila, District, Hardoi and Tehsil Mishrikh, Dist Sitapur, (U.P.)
2. Total area : 29987 ha.
3. Type of survey : Detailed soil survey
4. Period of Survey : December 1986 to December 1987
5. Soil series mapped and subwatershedwise area

S1. Name of the No series	Total area	Gmlb	Gmlc	Gmlg	Gm3a	Gm3h	Gm3j	Gm4a	Gm4c	Gm4d	Gm4f	Gm4g	Gm4h	Gm4k	Gm5a	Gm5g
1. Asodar	1288 4.3	-	-	-	-	70 2.6	37 2.2	21 1.0	70 2.7	24 0.9	670 30.9	-	275 12.0	121 3.5	-	-
2. Bari	532 1.8	-	-	9 1.1	127 10.2	74 2.8	7 0.4	155 7.1	134 5.4	26 1.0	-	-	-	-	-	-
3. Banawan	296 1.0	-	-	-	-	-	-	-	9 0.4	25 0.9	95 4.4	-	167 7.7	-	-	-
4. Gangapur	748 2.5	1	-	-	-	-	-	-	-	-	75 3.4	7 0.3	7 0.3	29 0.9	-	629 25.6
5. Hamirpur	11990 40.0	1156 74.3	619 34.2	270 32.7	-	967 35.8	522 30.8	501 23.0	866 33.9	1846 68.2	1146 52.8	228 10.2	1163 53.9	1263 37.3	4 1.3	1439 58.7
6. Jairampur	8184 27.3	35 2.3	431 23.9	489 59.1	804 64.8	494 18.3	912 53.8	1396 63.9	1179 46.2	386 14.3	-	1754 78.1	31 1.5	182 5.4	72 23.2	19 0.8
7. Kanayatpur	61 0.2	-	-	-	-	-	-	-	27 1.1	4 0.1	30 1.4	-	-	-	-	-
8. Nemisharayan	2868 9.5	288 18.5	541 29.9	-	-	335 12.4	35 2.0	-	70 2.7	-	-	52 2.3	246 11.4	896 26.4	229 73.9	176 7.2
9. Paraspur	1439 4.8	-	-	-	207 16.7	389 14.5	-	-	29 1.1	-	-	58 2.6	151 7.0	605 17.8	-	-
10. Rahimabad	370 1.2	-	-	-	10 0.8	-	-	-	-	-	67 3.1	-	82 3.8	125 3.7	-	86 3.5
11. Salimpur	180 3.6	-	-	-	-	-	-	-	10 0.4	170 6.3	-	-	-	-	-	-
Sub-total	27956 93.2	1480 95.1	1591 88.0	768 92.9	1148 92.5	2329 86.5	1513 89.2	2073 95.0	2394 93.8	2481 91.7	2083 96.0	2099 93.5	2122 98.3	3221 95.0	305 98.4	2349 95.8
Miscellaneous land	670 2.2	56 3.6	27 1.5	18 2.2	28 2.3	77 2.8	48 2.8	30 1.4	46 1.8	46 1.7	50 2.3	17 0.8	34 1.6	116 3.4	2 0.6	75 3.1
G.G.	525 1.8	-	138 7.6	28 3.4	4 0.3	173 6.4	46 2.7	10 0.4	-	126 4.6	-	-	-	-	-	-
Water bodies (River, Tank, Nala, Canal)	836 2.8	20 1.3	52 2.9	13 1.5	61 4.9	115 4.3	89 5.3	70 3.2	112 4.4	54 2.0	36 1.7	128 5.7	3 0.1	53 1.6	3 1.0	27 1.1
Sub-Total	2031 6.8	76 4.9	217 12.0	59 7.1	93 7.5	365 13.5	183 10.8	110 5.0	158 6.2	226 8.3	86 41.0	145 6.5	37 1.7	169 5.0	5 1.6	102 4.2
GRAND TOTAL	29987 100%	1556 100%	1808 100%	827 100%	1241 100%	2694 100%	1696 100%	2183 100%	2552 100%	2707 100%	2169 100%	2244 100%	2159 100%	3390 100%	310 100%	2451 100%

6. Area under different land capability class, subwatershedwise with percentage (area in ha.)

Sl. No.	Capability class	Total area in ha.	Gmlb	Gmlc	Gmlg	Gm3a	Gm3h	Gm3j	Gm4a	Gm4c	Gm4d	Gm4f	Gm4g	Gm4h	Gm4k	Gm5a	Gm5g
1.	II	14449 48.2	1156 74.3	431 23.8	270 32.6	99 8.0	1322 49.2	524 30.9	522 23.9	1001 39.2	1866 69.0	1941 89.5	228 10.2	1681 77.9	1971 58.1	4 1.3	1433 58.5
2.	III	8918 29.7	323 20.8	1108 61.3	385 46.6	511 41.2	839 31.1	713 42.0	1143 52.4	1027 40.2	122 4.5	- -	921 41.0	228 10.5	1096 32.3	301 97.1	201 8.2
3.	IV	3841 12.8	-	52 2.9	113 13.7	538 43.3	168 6.2	276 16.3	408 18.7	336 14.4	493 18.2	67 3.1	943 42.0	206 9.6	125 3.7	-	86 3.5
4.	VI	748 2.5	1	-	-	-	-	-	-	-	-	75 3.4	7 0.3	7 0.3	29 0.9	-	629 25.6
Sub-total		27955 93.2	1480 95.1	1591 88.0	768 92.9	1148 92.5	2329 86.5	1513 89.2	2073 95.0	2394 93.8	2481 91.7	2083 96.0	2099 93.5	2122 98.3	3221 95.0	305 98.4	2349 95.8
5.	Misc. land	670 2.2	56 3.6	27 1.5	18 2.2	28 2.3	77 2.8	43 2.8	30 1.4	46 1.8	46 1.7	50 2.3	17 0.8	34 1.6	116 3.4	2 0.6	75 3.1
6.	GG	525 1.8	-	138 7.5	28 3.4	4 0.3	173 6.4	46 2.7	10 0.4	-	126 4.6	-	-	-	-	-	-
7.	Water bodies	836 2.8	20 1.3	52 2.9	13 1.5	61 4.9	115 4.3	89 5.3	70 3.2	112 4.4	54 2.0	36 1.7	128 5.7	3 0.1	53 1.6	3 1.0	27 1.1
Sub-total		2031 6.8	76 4.9	217 12.0	59 7.1	93 7.5	365 13.5	133 10.8	110 5.0	158 6.2	226 8.3	86 4.0	145 6.5	37 1.7	169 5.0	5 1.6	102 4.2
Grand Total		29987 100%	1556 100%	1803 100%	827 100%	1241 100%	2694 100%	1696 100%	2183 100%	2552 100%	2707 100%	1169 100%	2244 100%	2159 100%	3390 100%	310 100%	2451 100%

7. Salient features and specific problems

- Nearly 3303 ha (11.0%) of the total area falls under undulating landscape and suffers from moderate to severe erosion.
- About 525 ha. (1.8%) area is under severely gullied land
- About 748 ha. (2.5%) area found to be affected by salinity and alkalinity which needs reclamation measures for sustained use for agriculture.