

**REPORT ON DETAILED SOIL SURVEY AND LANDUSE OF  
Ac4a, Ac5a, Ac5d & Ac5n SUBWATERSHEDS OF  
NAGARJUNASAGAR CATCHMENT  
ACHAMPET & KALWAKURTY TALUKS, MAHABUBNAGAR  
DISTRICT, DEVARKONDA TALUK, NALGONDA DISTRICT  
ANDHRA PRADESH**

**A B S T R A C T**

1. Survey area : Ac4a, Ac5a, Ac5d and Ac5n subwatersheds  
Nagarjunasagar Catchment  
Achampet, & kalwakurthy Taluks Mahabubnagar  
district, Devarkonda Taluk, Nalgonda district.
2. Total area mapped : 11,869 ha
3. Type of survey : Detailed soil survey
4. Period of survey : April 92 January, 93
5. Distribution of the area

Subwatersheds	Area as per RR report	Net area as per D.S.S.	Misc. area	Total area
Ac4a	2630	2530	266	2796
Ac5a	2125	2168	272	2440
Ac5d	3491	3289	348	3637
Ac5n	3459	2822	174	2996
<b>Total</b>	<b>11705</b>	<b>10809</b>	<b>1060</b>	<b>11869</b>

6. Soil series mapped and its extent under different subwatersheds

Name of the soil series (Symbol)	Name of the subwatersheds				Total
	Ac4a	Ac5a	Ac5d	Ac5n	
Devarkonda (DK)	717 (25.6)	564 (23.1)	266 (7.3)	160 (5.3)	1701 (14.4)
Gabbur (G)	-	-	-	365 (12.2)	365 (3.1)
Kambalapalli (KB)	285 (10.2)	-	-	-	285 (2.4)
Lambapur (L)	685 (24.5)	101 (4.1)	961 (26.4)	284 (9.5)	2031 (17.1)
Perwel (PR)	58 (2.1)	-	506 (13.9)	875 (29.2)	1439 (12.1)
Patancheru (PT)	472 (16.9)	1231 (50.5)	1438 (39.5)	1138 (38.0)	4279 (36.1)
Tatikol	101 (3.6)	44 (1.8)	-	-	145 (1.2)
Telugupalli (TP)	212 (7.6)	228 (9.3)	118 (3.3)	0	558 (4.7)
<b>Total</b>	<b>2530 (90.5)</b>	<b>2168 (88.8)</b>	<b>3289 (90.4)</b>	<b>2822 (94.2)</b>	<b>10809 (91.1)</b>
Misc.	266 (9.5)	272 (11.2)	348 (9.6)	174 (5.8)	1060 (8.9)
<b>Total</b>	<b>2796</b>	<b>2440</b>	<b>3637</b>	<b>2996</b>	<b>11869</b>

7. Distribution of area and soil series under different land capability class

Description	Land cap. class	Area (ha)	Soil series covered
Good : Land with minor limitations	II	8672 (73.1)	Gabbur, Lambapur, Patancheru Perwal, Telugupalli
Moderately good : Land with moderate limitations	III	1707 (14.4)	Devarkonda
Fairly : Suitable arable lands	IV	145 (1.2)	Tatikol
Suitable for pasture & forestry	VI	285 (2.4)	Kambalapalli

8. Salient features & specific problematic area :

- a) Eight soil series are met within the surveyed area but only Devarkonda, Lambapur, Patancheru and Perwal series are relatively extensive.
- b) About 73.1% of the surveyed area is covered by deep and very deep soils.
- c) About 27.8% of the surveyed area is having more than 3% slope.
- d) A large part of the surveyed area suffers from moderate erosion (77.2%).
- e) Only 2.4% area comes under non arable land capability classes.