

Report on detailed soil survey and landuse of  
Ad5b, Ad7a, Ad7b, Ad7c, Ad8a, Ad9a and Ad9b subwatersheds  
of Nagarjunasagar catchment, Kollapur taluk,  
Mahaboobnagar district, Andhra Pradesh

A B S T R A C T

01. Survey area Ad5b, Ad7a, Ad7b, Ad7c, Ad8a, Ad9a and Ad9b subwatersheds of Ad subcatchment, Nagarjunasagar catchment, Kollapur taluk, Mahaboobnagar district, Andhra Pradesh
02. Type of survey Detailed soil survey
03. Period of survey November, 91 to March, 92
04. Total area 20,955 ha

Subwater-shed code	Net area	Misc. area	Total area
Ad5b	1815	244	2059
Ad7a	2297	516	2813
Ad7b	1556	1512	3068
Ad7c	2374	678	3052
Ad8a	2894	1783	4677
Ad9a	909	1963	2872
Ad9b	1560	854	2414
<b>Total</b>	<b>13405</b>	<b>7550</b>	<b>20955</b>

05. Soil series and their extent

Name of the soil series	Area under different subwatersheds							Total
	Ad5b	Ad7a	Ad7b	Ad7c	Ad8a	Ad9a	Ad9b	
Amargiri	-	111 (4.8)	-	-	-	-	-	111 (0.8)
Chinnamarur	-	-	-	-	100 (3.4)	458 (50.4)	521 (33.4)	1079 (8.4)
Kopnur	-	-	14 (0.9)	137 (5.8)	1858 (64.2)	-	741 (47.5)	2750 (20.5)
Laxmipalli	-	-	39 (2.5)	96 (4.0)	98 (3.4)	-	-	233 (1.7)
Manchalakatta	284 (15.6)	-	877 (56.4)	308 (13.0)	380 (13.1)	252 (27.7)	-	2101 (15.7)
Narlapur	406 (22.4)	60 (2.6)	-	-	-	-	-	466 (3.5)
Peddadagada	-	-	-	-	141 (4.9)	-	-	141 (1.1)
Pentlavalli	-	-	2 (0.1)	488 (20.6)	-	-	-	490 (3.7)
Rayavaram	1125 (62.0)	2126 (92.6)	624 (40.1)	841 (35.4)	-	-	-	4716 (35.2)
Somsil	-	-	-	504 (21.2)	31 (1.1)	-	-	535 (3.5)
Veltur	-	-	-	-	286 (9.9)	199 (21.9)	298 (14.1)	783 (5.8)

Total	1815	2297	1556	2374	2894	909	1560	13405
Misc. area	244	516	1512	678	1783	1963	854	7550
Grand total	2059	2813	3068	3052	4677	2872	2414	20955

## 06. Potential for agricultural development land capability classification

Description	Land cap.	Area (ha)	Land capability unit	Area (ha)	Soil series covered
Good cultivated land	II	4481	IIs1	3552	Chinnamarur, Kopnur, Laxmipalli
			IIs1	510	Kpnur
			IIs2	141	Peddadagada
			IIs3	278	Narlapur
Fairly good	IV	4208	IVs1	569	Veltur
			IVs1	1111	Somsil, Veltur
			IVs2	1850	Amaragiri, Manchalakatta, Somsil
			IVs3	490	Pentlavalli
			IVs4	188	Narlapur
Suitable for pasture & forest	VII	4716	VIIs1	4716	Rayavaram
		13405		13405	

## 07. Salient features and specific problems

- Eleven soil series have been identified and mapped.
- The soils are invariably gravelly in nature except Chinnanarur, Kopnur, Laxmipalli and Narlapur series.
- Out of the total area of 13405 ha an area of 8110 ha is occupied by gravelly and coarse textured under very shallow to shallow depth Amaragiri, Manchalakotta, Pentlavalli, Rayavaram and Veltur series.
- An area of 4904 ha suffered from severe erosion and 4380 ha suffered from moderate erosion
- Deep to very deep Chinnanarur, Kopnur, Laxmipalli and Peddadagada series cover an area of 5295 ha and needed introduction of important farming system.
- Integrated soil conservation is a must to conserve moisture and control erosion.
- Rainwater storage at suitable sites is required to give limited irrigation to rainfed crops of the area.

### How to use the soil survey report

The report presents the results of the soil survey conducted in the subwatersheds Ad5b, Ad7a, Ad7b, Ad7c, Ad8a, Ad9a and Ad9b subwatersheds of Nagarjunasagar catchment. It furnishes a detailed account of survey area describing physiography, geology, climate, crops, vegetation and the type of soils.