

**Report on  
Detailed Soil Survey and Land Use of  
Ae13c and Ae13e subwatersheds of  
Nagarjunasagar Catchment,  
Adoni and Kauthalam taluk of Kurnool district,  
Andhra Pradesh**

**HYDERABAD CENTER**

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**ABSTRACT**

01. Survey area : Ae13c and Ae13e subwatersheds of Nagarjunasagar catchment, Adoni and Kauthalam taluk of Kurnool district, Andhra Pradesh
02. Type of survey : Detailed soil survey
03. Type of base map : Cadastral map (1:7,920 scale)
04. No. of villages covered : 15
05. Total area surveyed (ha) : 10779

(Area in ha)

Sr. No.	Subwater shed code	New Micro watershed code	Net area	Misc. area	Total area
01	Ae13c	4 D 3 A 7 h 1,2,3	4,102	164	<b>4,266</b>
02	Ae13e	4 D 3 A 7 j 3,4,5	6,160	353	<b>6,513</b>
	<b>Total</b>		<b>10,262</b>	<b>517</b>	<b>10,779</b>

06. Agro-climatic Zone : Southern hill and plateau regions (Zone no X)
07. Period of survey : August 2011 to September 2011
08. Soil series identified and their subwatershed wise distribution (ha)

Soil series	Ae13c	Ae13e	Total	Percentage
Adoni	12	359	371	3.44
Alabanuru	50	-	50	0.46
Badanehalu	30	109	139	1.29
Erigeri	78	1279	1357	12.59
Hebbatam	2087	4267	6354	58.95

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Kamaravam	113	-	113	1.04
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Nagahalli	110	-	110	1.02
Peddagonahalu	656	34	690	6.40
Santekulluru	740	-	740	6.87
Tovi	226	112	338	3.14
Misc.	164	353	517	4.80
<b>Grand total</b>	<b>4266</b>	<b>6513</b>	<b>10779</b>	<b>100.0</b>

09 .Potential for agricultural development and land capability classification

Soil series covered	Land capability unit	Area (ha)	Land capability class	Area (ha)	Percentage
Erigeri	Ile-1	1357	II	1357	12.59
Alabanuru Badanehalu Hebbatam Nagahalli Peddagonahalu Santekulluru Tovi	IIIs-1 IIIes-1	1286 7042	III	8328	77.27
Komavaram	IVes-1	113	IV	113	1.04
Adoni	VIes-1	35	VI	35	0.32
Adoni Peddagonahalu	P/M*	336 93	P/M	429	3.98
Total		10,262		10,262	95.20
Misc.		517		517	4.80
<b>Grand Total</b>		<b>10,779</b>		<b>10,779</b>	<b>100.0</b>

\*P/M Area is falls under rainfed forest, needs pasture and forest management.

## 10. Salient Features

1. Deep to very deep soils constitute 9390 ha (87.11%) of the total surveyed area (10779 ha), moderately deep soils cover 501 ha (4.65%) of the surveyed area and shallow soils cover 371 ha (3.44%) of the surveyed area
2. Very gently to gently sloping land constitutes 9891 ha (91.76%) which is suitable for agriculture, about 1286 ha (11.93%) area are modified by terracing upto 0.5% slope.
3. An area of 8492 ha (78.78%) suffers from moderate erosion hazards.

## How to use soil survey report

The report presents the results of the detailed soil survey in Ae13c and Ae13e subwatersheds of Nagarjunasagar catchment. It provides comprehensive information on the soils of the area with their classification, distributional pattern and inters relationships. The data emanating from this report can be used for various applied activities of development like crop planning, conservation work plans, selection of new area for afforestation, engineering application etc.

### Broad outline

This report comprises 9 chapters

Chapter 1 deals with introduction and background information about the soil survey

Chapter 2 describes the physical and environmental setting of the area i.e. geology, climate, natural vegetation, socio-economic condition, present landuse and pattern of agriculture. Chapter 3 and 4 cover the procedural details e.g. description and characteristics of soils.

Chapter 5 deals with distribution area under different soil series and phases. Chapter 6 deals with soil formation with their genetic aspect and classification. Chapter 7 deals with interpretation of Soil Analytical Data.

Chapter 8 presents various interpretative groupings of soils derived from the database of the soils and land characteristics collected during the survey. The potentiality of the soils and ameliorative measures to be adopted for agricultural development has also been discussed.

Chapter 9 deals with Watershed management, suggested planning for landuse and area development which may help the user agencies

Soil and land capability map: The soil and land capability map is appended in this report. Each soil unit delineated on the map is represented by symbolic expression that corresponds with its description in the legend. The abbreviated symbol gives the information about the soil series name, effective soil depth, surface texture, slope and severity of erosion, rockiness and stoniness as indicated below with an example.

Soil mapping unit AD2dGH3SR connotes

AD : Adoni - Soil series name  
2 : Shallow soils (depth class)  
d : Gravelly sandy loam (textural class)  
GH : Steep to very steep (slope class)

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3 : Severe erosion (Erosion class)  
SR : Severe stony and rocky phase

### Guidelines to Users

The area of interest can be located on the map. For the purpose, soil mapping unit and particulars of interpretative groups may be noted down. Details of soil description and various interpretations can be obtained from chapter 5 and 6 respectively. Interested soil scientists can have the description of typifying pedon from Appendix II. Present landuse and broad capability for future cropping pattern is provided in Appendix III

The recommendations and suggestions given in this report are of broad nature. For site specific, detailed field management and treatment, local experience and conditions should be considered by the various users.

For any additional information or clarification contact may be established with

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