

**REPORT ON DETAILED SOIL SURVEY AND LAND USE OF Ah5p1, Ah5p2, Ah5p3, Ah5p4, Ah5p5, Ah5p6 AND Ah5s5 SUBWATERSHEDS OF BHIMA SUBCATCHMENT OF NAGARJUNSAGAR R.V.P CATCHMENT, AFZALPUR AND GULBARGA TALUKS, GULBARGA DISTRICT, KARNATAKA.**

**ABSTRACT**

- 1) Surveyed area : Ah5p1, Ah5p2, Ah5p3, Ah5p4, Ah5p5, Ah5p6 and Ah5s5 sub-watersheds of Bhima subcatchment in Afzalpur and Gulbarga taluks of Gulbarga district, Karnataka.
- 2) Total area mapped and reported : 20,185 hectares
- 3) Kind of survey : Detailed Soil Survey
- 4) Period of survey : November 1993 to April 1993
- 5) No. of surveyed villages (Part or full) : Thirty two
- 6) Base map used : Cadastral maps (8''=1 Mile)
- 7) Agro-climatic zone : Semiarid tropical (No.10)
- 8) Soil series mapped and subwatershedwise total area under each series:

Name of the soil series	Total area	Percentage	Ah5p1	Ah5p2	Ah5p3	Ah5p4	Ah5p5	Ah5p6	Ah5s5
Basantpur	152	0.8	20	99	-	33	-	-	-
Bhima	358	1.8	358	-	-	-	-	-	-
Borale	1990	9.9	83	361	416	447	180	289	214
Chimkod	1436	7.1	186	665	282	122	18	99	64
Gadgi	5017	24.9	270	674	507	1232	397	784	1153
Hadanur	250	1.2	250	-	-	-	-	-	-
Kandgola	3163	15.7	281	538	727	813	88	208	508
Kumbhare	1660	8.2	225	121	741	187	45	162	179
Malla	41	0.2	41	-	-	-	-	-	-
Talsangi	1435	7.1	170	257	347	60	250	230	121
Wadagaon	4249	21.0	69	122	714	518	712	1200	914
Sub Total	19751	97.9	1953	2837	3734	3412	1690	2972	3153
Miscellaneous	434	2.1	42	40	138	39	30	74	71
Grand Total	20185		1995	2877	3872	3451	1720	3046	3224
Percentage		100.0	9.9	14.3	19.2	17.1	8.5	15.1	15.9

9) Area under different land capability classes:

Sl. No.	Land capability class	Total area	Percentage	Soil series
1.	II	3917	19.4	Basantpur, Bhima, Borale, Chimko, Kumbhare, Malli
2.	III	9206	45.6	Bhima, Borale, Chimkod, Gadgi, Hadanur, Kandgola, Kumbhare, Mal
3.	IV	6151	30.5	Bhima, Borale, Chimkod, Gadgi, Hadanur, Kandgola, Kumbhare, Talsangi, Wadagaon
4.	VI	477	2.4	Wadagaon
5.	Misc.	434	2.1	
Grand Total		20185	100.0	

Miscellaneous land included the area under village sites, stream, rivers, roads, tanks, rock-out-crops, gullied lands etc.

10) Salient features and specific problems of the area:

- The surveyed area covers 20185 hectares encompassing 32 villages under Afzalpur and Gulbarga taluks of Gulbarga district Karnataka.
- Eleven soil series are met in the surveyed area. Out of these only Gadgi and Wadagaon series are relatively extensive comprising 46% of total area.
- An area of 2781 ha. (14%) possesses very shallow soils (less than 25 cm. depth) encountered on slopes of 3-5% limit the scope of their management.
- An area of 279 hectares having very shallow soil depth encountered on slopes varying from 5 to 15%.
- An area of 1197 hectares is subjected to severe erosion (6%).