

Report on Detailed Soil Survey and Land Use of Gh1b, Gh1c, Gk1c and Gk1d subwatersheds of Chambal Catchment (above Gandhi Sagar dam) Tehsil Gangdhar, Distt: Jhalawar Rajasthan and Tehsil Alot, Distt: Ratlam M.P.

A B S T R A C T

1. Survey Area : Gh1b, Gh1c, Gk1c and Gk1d subwatershed Chambal R.V.P. above Gandhi Sagar dam, Tehsil Jhalawar Distt: Rajasthan and Tehsil Alot Ratlam Distt: M. P.
2. Total area : 10,882 hectares
3. a. Kind of Survey Detailed Soil Survey  
b. Period of Survey December 1983 to March 1984.
4. Soil Series mapped and area covered by each series

<u>Soil Series</u>	<u>Area in ha.</u>	<u>Percent</u>
1. Antralia	733	6.7
2. Baloda	2294	21.1
3. Gabapura	245	2.2
4. Harsaur	147	1.3
5. Jaggakheri	255	2.3
6. Kamliakheri	3075	28.3
7. Panchdaria	1440	13.3
8. Runeja	988	9.1
9. Sarol	550	5.1
10. Miscellaneous land	1155	10.6
Grand Total -	<u>10882</u>	<u>100.0</u>

5. Land capability clarifications :

<u>S. No.</u>	<u>Land capability class.</u>	<u>Area in ha.</u>	<u>Soil Series</u>
<u>Arable Lands</u>			
1.	II - Good land minor limitations	1903	Antralia, Baloda, Harsaur, Jaggakheri, Sarol.
2.	III- Moderately good land moderate limitations	2525	Antralia, Baloda, Gabapura, Kamliakheri, Harsaur, Jaggakheri, Sarol.
3.	IV Marginal land, major limitations.	2871	Antralia, Baloda, Gabapura, Kamliakheri, Jaggakheri
<u>Nonarable lands</u>			
4.	VI Grass & Forest land	2428	Runeja and Panchdaria
5.	Miscellaneous land	1155	
	Total	<u>10,882</u>	

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## 6. Salient features :

- a. Of the total area of 10882 hectares, nearly 7299 hectares (67.1%) are suitable for agriculture.
- b. Nearly 22.4% of the total area is under very shallow to shallow soils and requires good forest ranges and grass management.
- c. Of the total surveyed area, 4680 hectares (43.0%) suffer from severe erosion and 4156 hectares (38.2%) from moderate erosion.
- d. Of the 9 soil series, Kamliakheri (28.3%), Baloda (21.1%) Panchdaria (13.3%) and Runeja (9.1%) series are extensive soils.

Although Antralia series covers 733 hectares (6.7%) of the total area it suffers from moderate to severe erosion and needs immediate attention.

- e. About 596 hectares have been mapped as gullied land which need special reclamation measures including gully control.

## HOW TO USE SOIL SURVEY REPORT

The report embodies the results of the detailed soil survey of parts of Chambal/catchment, Tehsil Gangdhar, Distt: Jhalawar Rajasthan and part of Alot Tehsil, Ratlam M.P. . . . . . furnishes information on the general watershed characteristics, such as, physiography, geology, climatic conditions, vegetation, land use and provides detailed descriptions of the soils, land capability classes and other utilitarian type of interpretative groupings. The classification of the soils is also discussed.

In the soil mapping units, each mapping unit is marked by a mapping symbol, such as, B5rB2 which gives abbreviated soil series name 'B' for Baloda series; soil depth '5' for very deep soils; soil type 'r' clay; slope class 'B' for 1-3% slopes; and erosion class '2' for moderate erosion.

For the use of soil survey report, first locate the area that you are/interested in on the map and note down the soil mapping unit. Permanent features, such as, roads, cart tracks, ponds, streams, village habitation, etc. are shown on the map and would help to locate the area of interest on the map.

From the "Guide to soil mapping Units" (Appendix-1), read the details of the soil mapping unit of your interest, such as, its area, interpretative groups for various use purposes, etc.

For detailed information on soil series, profile descriptions and other soil characteristics, refer to the chapter-4 on "Description of the soils" and also appendix-2 for technical descriptions of the soil series. The physico-chemical character can be obtained from appendix - 3.

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