

REPORT ON DETAILED SOIL SURVEY AND LAND USE OF Db1a', Db'3b AND Db'4h  
SUBWATERSHEDS OF DANTIWADA R.V.P. CATCHMENT, TEHSIL - PALANPUR,  
DISTT. BANASKANTHA, GUJARAT STATE.

ABSTRACT

1. Surveyed Area : Db1a', Db'3b and Db'4h Subwatersheds of  
Dantiwada R.V.P. Catchment, Tehsil - Palanpur,  
District - Banaskantha, Gujarat State.
2. Location : 24° -15' to 24°- 30' N. Latitude.  
72°- 35' to 72°- 45' E. Longitude.
3. Total Surveyed Area : 4048 ha.
4. No. of Villages : 16.
5. Type of Survey : Detailed Soil Survey.
6. Period of Survey : December-1994 to June-1995.
7. Agro-climatic Zone : 13.
8. No. of Mapping Units : 9.

**9. Soil Series Mapped and Subwatershed-wise Area Covered by each Series (ha.)**

SI No.	Soil Series	SUBWATERSHEDS			Total
		Db1a'	Db'3b	Db'4h	
1.	<b>Balundra</b>	223 (18.5)	12 (1.5)	-	235 (5.8)
2.	<b>Chandrabati</b>	195 (16.2)	05 (0.6)	31 (1.5)	231 (5.7)
3.	<b>Ghangu</b>	632 (52.5)	463 (57.4)	1686 (82.8)	2781 (68.7)
4.	<b>Jotiyali</b>	24 (2.0)	19 (2.4)	46 (2.3)	89 (2.2)
5.	<b>Khuniya</b>	73 (6.1)	232 (28.7)	232 (11.3)	537 (13.3)
	<b>Sub total</b>	<b>1147</b> <b>(95.3)</b>	<b>731</b> <b>(90.6)</b>	<b>1995</b> <b>(97.9)</b>	<b>3873</b> <b>(95.7)</b>
	<b>Miscellaneous land with submerged area</b>	57 (4.7)	76 (9.4)	42 (2.1)	175 (4.3)
	<b>Grand total</b>	<b>1204</b> <b>(100.0)</b>	<b>807</b> <b>(100.0)</b>	<b>2037</b> <b>(100.0)</b>	<b>4048</b> <b>(100.0)</b>

(Figures in parenthesis are the percentage of the area)

## 10. Subwatershed-wise Area under Different Land Capability Class

Land Capability Class	SUBWATERSHEDS			Total
	Db1a'	Db'3b	Db'4h	
II	286 (23.8)	30 (3.7)	77 (3.8)	393 (9.7)
III	31 (2.6)	126 (15.6)	40 (2.0)	197 (4.9)
IV	198 (16.4)	112 (13.9)	192 (9.4)	502 (12.4)
<b>Total</b>	<b>515</b> <b>(52.8)</b>	<b>268</b> <b>(33.2)</b>	<b>309</b> <b>(15.2)</b>	<b>1092</b> <b>(27.0)</b>
<b>Forest Land</b>	632 (52.5)	463 (57.4)	1686 (82.7)	2781 (68.7)
<b>Miscellaneous land</b>	57 (4.7)	76 (9.4)	42 (2.1)	175 (4.3)
<b>Grand total</b>	<b>1204</b> <b>(100.0)</b>	<b>807</b> <b>(100.0)</b>	<b>2037</b> <b>(100.0)</b>	<b>4048</b> <b>(100.0)</b>

### SALIENT FEATURES :

Five Soil Series have been mapped. Out of these, one soil series namely Ghangu- (68.7%) is relatively extensive Soil Series.

Out of the total area of 4048 ha. only 1092ha. (27.0%) is suitable for agriculture.

About 2781 ha. (68.7%) area is under non-culturable lands and needs proper forest pasture Management.

Approximately 576 ha. (14.23%) area have moderate erosion hazards whereas about 3121 ha. (77.0%) area have severe erosion problems. Both require suitable soil conservation measures.

Very shallow to shallow soils covers an area about 2781 ha. (68.7%) and are suitable for pasture and forest development.

About 2781 ha. (68.7%) are and have slope gradient over 10%.