

ABSTRACT / सारांश

1. Survey area : Dang district, Gujarat
सर्वेक्षण क्षेत्र : जिला डांग, गुजरात
2. Geographical Extent : 20°33'50" to 21°4'54" North latitude उत्तर अक्षांश
भौगोलिक सीमा : 73°27'56" to 73°56'31" East longitude पूर्व देशांतर
3. Agro- climatic Zone : Dry sub-humid climate
कृषि जलवायु क्षेत्र : Gujarat Plains and Hills region (Zone - XIII)
गुजरात मैदानी और पहाड़ी क्षेत्र (ज़ोन-XIII)
4. Total area mapped : 1,76,267 ha हेक्टेयर
कुल क्षेत्रफल
5. Kind of Survey : Soil Resource Mapping (SRM) using Remote Sensing & GIS Techniques
सर्वेक्षण की प्रकार : मृदा संसाधन मानचित्रण (एस.आर.एम.), सुदूर संवेदन और भौगोलिक सूचना प्रणाली तकनीक का उपयोग से
6. Base Map : a) IRS-1D Geo-coded Satellite Imagery (1:50,000 Scale)
आधार नक्शा : आईआरएस -1 डी जिओ-कोड उपग्रह चित्रण (1: 50,000 स्केल)
b) SOI Toposheets (1: 50,000 scale)
सर्वे ऑफ इंडिया टोपोशीट (1: 50,000 पैमाने पर)
7. Scale of Mapping : 1: 50,000
मानचित्रण के स्केल
8. Period of Survey : April 2012- February 2013
सर्वेक्षण की अवधि : अप्रैल २०१२ से फरवरी २०१३

❖. Distribution of area under different soil series association mapped मिट्टी श्रृंखला एसोसिएशन के तहत मैप किया क्षेत्र का वितरण

Sr. No.	Legend	Mapping Unit	Series Association	Area	Area (%)
1	A01	ALb2a1	Sajod-Latipura	5287	3.00
2	A10	ALi5d1	Latipura-Sajod	49	0.03
3	B01	BAn8c1	Kavachiya-Bhuvan	92128	52.27
4	B02	BAn8c2	Bhuvan-Kavachiya	12537	7.11
5	B03	BAn8c3	Bhuvan-Kavachiya	6983	3.96
6	B05	BAn6c1	Kavachiya-Bhuvan	6938	3.94
7	B06	BAn6a1	Bhuvan-Kavachiya	28	0.02
8	B08	BAu4a1	Jambar-Singalvan	38742	21.98
9	B10	BAv3a1	Chandravan-Kadaba	5824	3.30
10	Misc.	F (Hab.)		755	0.43
		G (River)		6996	3.97
			Grand Total	1,76,267	100

B. Distribution of Area under different Physiography Classes विभिन्न प्राकृतिक भूगोल वर्गों के तहत क्षेत्र का वितरण

Landscape	Physiography	Area(ha)	Area (%)
Alluvium (AL)	Alluvial plains (b)	5287	3.00
	Ravinous lands (i)	49	0.03
Basalt (BA)	Pediments (u)	38742	21.98
	Undifferentiated hills side slope (n)	118614	67.29
	Upper Pediplains (v)	5824	3.30
Miscellaneous lands (Habitation & River)		7751	4.40
Total		1,76,267	100

C. Distribution of area under different depth classes विभिन्न गहराई वर्गों के तहत क्षेत्र का वितरण

Sr. No.	Depth	Area(ha)	Area (%)
1	Shallow	38742	21.98
2	Shallow to moderately deep	118614	67.29
3	Moderately deep to deep	5824	3.30
4	Very deep	5336	3.03
5	Misc.	7751	4.40
	Grand Total	1,76,267	100

D. Distribution of area under different Erosion classes विभिन्न कटाव वर्गों के तहत क्षेत्र का वितरण

Sr. No.	Erosion	Area(ha)	Area (%)
1	None to slight water erosion	5287	3.00
2	Slight to moderate erosion	5824	3.30
3	Moderate to severe erosion	38742	21.98
4	Severe water erosion	118663	67.32
5	Misc.	7751	4.40
	Grand Total	1,76,267	100

E. Distribution of area under different management classes विभिन्न प्रबंधन वर्गों के तहत क्षेत्र का वितरण

Sr. No.	Management	Area(ha)	Area (%)
1	Unmanaged(UB)	118663	67.32
2	Unmanaged(UB) to poorly managed(PB)	38742	21.98
3	Poorly managed(PB) to moderately managed(MB)	5824	3.30
4	Well managed(WB)	5287	3.00
5	Misc.	7751	4.40
	Grand Total	1,76,267	100

F. Distribution of area under different slope classes विभिन्न ढलान वर्गों के तहत क्षेत्र का वितरण

Sr. No.	Slope Classes	Area(ha)	Area (%)
1	Nearly level to very gently sloping	5287	3.00
2	Very gently sloping to gently sloping	5824	3.30
3	Gently sloping to moderately sloping	38742	21.98
4	Moderately sloping to strongly sloping	49	0.03
5	Strongly sloping to moderately steep	6966	3.95
6	Steep to very steep	111648	63.34
7	Misc.	7751	4.40
	Grand Total	1,76,267	100

G. Distribution of area under different land use अलग भूमि उपयोग के तहत क्षेत्र का वितरण

Sr. No.	Land use	Area(ha)	Area (%)
1	Agriculture	49881	28.30
2	Forest	118586	67.28
3	Open scrub	49	0.03
4	Misc.	7751	4.40
	Grand Total	1,76,267	100

H. Distribution of Area under different Land Capability Classes

Class	Land Capability Classes	Area(ha)	Area (%)
II-III	Land Suitable For Cultivation, Moderately Good To Good Land With Moderate Limitations	5287	3.00
III	Land Suitable For Cultivation, Moderately Good Land With Major Limitations	5824	3.30
IV	Land Suitable For Cultivation, Fairly Good Land With Occasional Cultivation And Major Limitations	38742	21.98
VI-VII	Land Not Suitable For Cultivation, Suitable For Pasture And Forestry With No Limitations.	49	0.03
VI	Land Not Suitable For Cultivation, Suitable For Pasture And Forestry With Minor Limitations.	28	0.02
	Forest	118586	67.28
	Miscellaneous lands (Habitation & River)	7751	4.40
	Total	1,76,267	100

I. Salient features मुख्य विशेषताएं:

- Major part of survey area covered under Basalt landscape (92.58 % of total geographical area) of district, followed by Alluvium landscape (3.03 %) as shown in the table B.
- Soils of the area have been classified under three orders Entisols, Inceptisols and Vertisols. In all, eight series in the district have been mapped under 3 order, 3 suborder, 3 Great groups, 3 Sub group and 5 family classes.

- The interpretation of data reveals that major part of area covering 118586 ha (67.28 %) falls under forest. Followed by 49881 ha (28.30 %) area under agriculture and small area of 49 ha (0.03%) comes under open scrub and Miscellaneous lands (Habitation & River) covered 7751 ha (4.40%) area.
- Out of the total surveyed area of 1, 76,267 ha, 1, 18,614 ha (67.29%) is occupied by shallow to moderately deep soils followed by 38,742 ha (21.98%) by Shallow and 5,824 ha (3.30%) by moderately deep to deep.
- About 1,11,648 ha (63.34%) area falls under steep to very steep sloping land, followed by 38,742 ha (21.98%) area under gently sloping to moderately sloping 6,966 ha (3.95%) under Strongly sloping to moderately steep slope and 5,824 ha (3.30%) under very gently sloping to gently sloping land.
- About 1, 18,663 ha (67.32%) area suffers from Severe water erosion followed by 38,742 ha (21.98%) area under Moderate to severe erosion, which needs immediate attention for soil conservation measures.
- About 38,742 ha (21.98%) lands are having capability class-IV, marginally suited for agriculture, 5,824 (3.30%) lands are having capability class-III, good lands with major limitations and 77 ha (0.05%) area are having capability class VI & VII, suited for Agri-silvipastural farming system.

HOW TO USE SOIL RESOURCE MAPPING REPORT

This report embodies the results of the soil resource mapping of Dang district of Gujarat providing information on the geographical setting of the district, such as location, extent, physiography, relief, drainage, climate, geology, natural vegetation, agriculture, land use & soils.

The report contains other information on interpretative grouping of soils such as land capability classes; land irrigability classes, soil suitability grouping and hydrological grouping and also recommendation for crops; horticulture development; forest, forage and grasslands development; water harvesting, water storage and water management that are essential for soil land resource management. The genesis and classification of the soils are also discussed in chapter-5.

Dang district of Gujarat is spread over an area of 1, 76,267. District is covered by ten SOI topographical sheets on the scale of 1:50,000 which are used as base material along with satellite imageries.

Each soil mapping unit is marked by mapping unit i.e. Alb2a1 (Alluvium, alluvial plain; 0-3% slope; agriculture land use; soil series Association, describing Sajod- as dominant series in association with Latipura & Thasra series). Each soil association is restricted to maximum of three soil series.

For the use of the soil resource mapping report, first locate the area of your interest on the map. For the detailed information on soil mapping unit in respect of soil series of the area of interest, its extent, present and proposed land uses, and reference may be made to **chapter-4, appendix I and II.**

The mapping unit used in soil mapping represents the five levels of mapping i.e. Alb2a1 may be referred as follow:

AL	- Alluvium	-	Landscape
b	- Alluvium plain	-	Physiography
2	- 0-3 %	-	Slope class
a	- Agriculture land	-	Land use
1	- Association of soil series with erosion and management soil unit.		

For any clarification and comments, correspondence may be made to

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