

**Report on Detailed Soil Survey and Land Use of 2B4D6a1 to a9, 2B4D6b1 to b9, 2B4D6c1 to c8, 2B4D6d1 to d9, 2B4D6f1 to f9, 2B4D6g1 to g9, 2B4D6h1 to h9, 2B4D6j1 to j7, 2B4D6k1 to k7, 2B4D6m1 to m8, 2B4D6n1 to n8, 2B4D6p1 to p5 and 2B4D6q1 to q8 Micro watersheds of (from confluence of Gohgan and Khoh) Sub -catchment of Ramganga FPR Catchment in Tehsil - Almora, Someshwar, District- Almora, Uttarakhand State.**

***Abstract***

- 1. Survey area** : Report on Detailed Soil Survey and Land Use of 2B4D6a1 to a9, 2B4D6b1 to b9, 2B4D6c1 to c8, 2B4D6d1 to d9, 2B4D6f1 to f9, 2B4D6g1 to g9, 2B4D6h1 to h9, 2B4D6j1 to j7, 2B4D6k1 to k7, 2B4D6m1 to m8, 2B4D6n1 to n8, 2B4D6p1 to p5 and 2B4D6q1 to q8 Microwatersheds of (from confluence of Gohgan and Khoh) Subcatchment of Ramganga FPR catchment in Tehsil- Almora, Someshwar, District-Almora, Uttarakhand State.
- 2. Geo-graphical Location** : Lies between 29° 32' to 29°52' N, Latitude and between 79°31' to 79°43' E, Longitude
- 3. Type of Survey** : Detailed Soil Survey using Remote Sensing techniques
- 4. Base map used** : Satellite Imagery: 1:12500 & Survey of India Toposheets 1:50000 Scale
- 5. Total area mapped** : 55420 ha.
- 6. Agro Climatic Region** : V-The Upper Gangetic Plain Region.
- 7. Period of Survey** : March-June, 2012 and May-June 2013
- 8. Names of Soil Series and their extent:**

Sl. No.	Series Name	No. of mapping unit	Area (ha)	Percentage
1.	Ayarpani (A)	7	9337	16.85
2.	Barsimi (BR)	4	4679	8.44
3.	Dharimkhola (DK)	2	176	0.32
4.	Gawalakot (GK)	6	4827	8.71
5.	Gurada (GU).	3	825	1.49
6.	Kanalbunga (KB)	6	3997	7.4
7.	Kawarali( KW)	5	4218	7.61
8.	Kotaliya( KT)	6	2510	4.53
9.	Naula (N)	3	3996	7.4
10.	Panergaon (PN)	6	6502	11.73
11.	Pathriya (PR)	3	1057	1.91
12.	Pokhora (PK)	6	9163	16.53
13.	Rait (R)	2	444	0.8
14.	Takula (TK)	3	758	1.37
15.	Thapola (TP)	3	1956	3.53
16.	Water bodies	-	193	0.35
17.	Miscellaneous	-	782	1.41
	<b>Total</b>	<b>65</b>	<b>55420</b>	<b>100.0</b>

**9. Distribution of Area under Different Depth Classes:**

<b>Soil Depth Class</b>	<b>Area in ha</b>	<b>Percentage</b>
Shallow	12820	23.13
Moderately deep	25002	45.12
Deep	14188	25.60
Very deep	2435	4.39
Water bodies	193	0.35
Miscl. Lands	782	1.41
<b>Total</b>	<b>55420</b>	<b>100.00</b>

**10. Distribution of Area under Different Soil Erosion Classes:**

<b>Erosion Class</b>	<b>Area in ha.</b>	<b>Percentage</b>
Moderate erosion	26881	48.50
Severe erosion	27564	49.74
Water bodies	193	0.35
Miscl. Lands	782	1.41
<b>Total</b>	<b>55420</b>	<b>100.00</b>

**11. Distribution of Area under Different Land Capability Classes**

<b>Land Capability Class</b>	<b>Area in ha</b>	<b>Percentage</b>
II	2098	3.79
IV	12367	22.31
VII	15001	27.07
Forest	24979	45.07
Water bodies	193	0.35
Miscl. Lands	782	1.41
<b>Total</b>	<b>55420</b>	<b>100.00</b>

**12. Salient Features of the area:**

- 12820 ha (23.13%) lands may be brought under agro-horticulture or pasture development.
- About 45.12% i.e. 25002 ha area is comes under moderately deep soil, it's followed by deep 25.60%, shallow 23.13% of total surveyed area.
- Major part of the surveyed area suffers from severe erosion i.e. about 27564 ha (49.74%) and 26881 ha (48.50%) area is suffering from moderate erosion; urgently require conservation measures to prevent soil & nutrient loss.
- The series wise distribution show series Ayarpani, Pakhora, Panergoan occur in 9337 ha, 9163 ha & 6502 ha respectively together covering 45.07% of total surveyed area comes under >10% slope.

## How to Use Soil Survey Report

The present report furnishes a detailed account of various characteristics of the surveyed area like physiography, relief, geology, climate, natural vegetation, land use and soils. Detailed descriptions of soils series recognized in the area and interpretation of different soil mapping units for various applied aspects of agricultural development, such as land use planning, soil and water management, soil conservation, are given in relevant chapters. Different problems of the area have been depicted and corrective measures have also been suggested.

In order to use the report, the user will locate the area of his interest on the soil map appended with the report. On the map, each soil mapping unit has been delineated and represented by symbolic expression. The abbreviated symbol of mapping unit reflects information about the name of soil series, soil depth, surface texture, land gradient, erosion status and Terrace slope. The soil mapping unit is demarcated as A3dG(B)3 where 'A represents for 'Ayarpani' Soil Series, '3' for Moderately deep soil depth, 'd' for **sandy loam surface texture**, 'G' for **steep slope (25-33%)**, (B) for **terrace slope** and '3' for **severe water erosion**.

The detailed of the soil mapping units, their description and multipurpose interpretative groupings have been shown in **Annexure-I** (Guide to Soil Mapping Units). The Differentiating Morphological Characteristics of Soil Series are furnished in **Table-5** and the Morphological Description of Soil Series is described in **Annexure-II**. Micro watershed wise mapping unit list in **Annexure-III**. An analytical method is described in **Annexure –IV**. The Glossary of Scientific terms used in this report is given in **Annexure –V**. The symbols used in the report are also illustrated in **Annexure-VI**.

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