

Report on Demarcation of Priority Micro-watersheds in 1A2C and 1A2D Sub-Catchments (Above Wangthu) of Sutlej RVP Catchment, Kinnaur and Lahul Spiti districts of Himachal Pradesh

ABSTRACT

1. Survey Area : Report on the Prioritization of 1A2C and 1A2D Sub-Catchments (Above Wangthu) of Sutlej RVP Catchment, Kinnaur and Lahul Spiti districts of Himachal Pradesh.
2. Location : 31°-10' to 32°-55' North Latitude
77°-36' to 78°-55' East Longitude
3. Total Area : 964634 ha.
4. Period of Survey : June, 1998 to July, 1998
5. Type of Survey : Rapid Reconnaissance Survey for Priority Delineation
6. Base Material : FCC Imageries and Survey of India Toposheets in the Scale of 1:50,000
7. Codification of Hydrological Units : Region No. 1
Basin No. 1A
Catchment 1A2 (Satluj RVP)
Sub-catchment 1A2C, D
Watershed 1A2C1, 2, 3.....
Sub-watershed 1A2C1a, b, c.....
Micro-watershed 1A2C1a1, 2, 3...
8. Hydrological Division of the Survey Area

| Sl. No. | Sub-catchment | No of watersheds | No of sub-watersheds | No of micro-watersheds |
|---------|---------------|------------------|----------------------|------------------------|
| 1. | 1A2C | 7 | 111 | 699 |
| 2. | 1A2D | 7 | 128 | 978 |
| | Total | 14 | 239 | 1677 |

9. Districtwise distribution of area and No. of Microwatersheds under Different Priority Categories:

(Area in ha)

| PRIORITY CATEGORY | TOTAL NO. OF MWSD | TOTAL AREA | % | DISTRICTS | | | | | |
|-------------------|-------------------|---------------|---------------|-------------|----------|---------------|-------------|----------|---------------|
| | | | | KINNAUR | | | LAHUL SPITI | | |
| | | | | NO. OF MWSD | | AREA | NO. OF MWSD | | AREA |
| FULL | PARTLY | FULL | PARTLY | | | | | | |
| Very High | 847 | 468885 | 48.61 | 389 | - | 210610 | 458 | - | 258275 |
| High | 140 | 81690 | 8.47 | 68 | - | 36830 | 72 | - | 44860 |
| Medium | 191 | 109240 | 11.32 | 117 | 1 | 64765 | 73 | 1 | 44475 |
| Low | 56 | 33680 | 3.49 | 35 | - | 20205 | 21 | - | 13475 |
| Very Low | 443 | 271139 | 28.11 | 220 | - | 125900 | 223 | - | 145239 |
| Total | 1677 | 964634 | 100.00 | 829 | 1 | 458310 | 847 | 1 | 506324 |

10. Area Extent of different Erosion Intensity Mapping Units

| Sl.No. | EIMU | Weightage Value | Delivery Ratio | (Area in ha) | |
|--------------------|------|-----------------|----------------|---------------|---------------|
| | | | | Area | Percentage |
| 1 | A01 | 14 | 0.61 | 530 | 0.05 |
| 2 | A02 | 14 | 0.63 | 370 | 0.04 |
| 3 | C01 | 11 | 0.60 | 207584 | 21.52 |
| 4 | C02 | 14 | 0.77 | 83442 | 8.65 |
| 5 | C03 | 20 | 0.87 | 234195 | 24.28 |
| 6 | C04 | 17 | 0.75 | 18945 | 1.96 |
| 7 | C05 | 21 | 0.91 | 5155 | 0.53 |
| 8 | C06 | 24 | 0.96 | 78173 | 8.10 |
| 9 | C07 | 19 | 0.82 | 11185 | 1.16 |
| 10 | C08 | 13 | 0.59 | 10635 | 1.10 |
| 11 | C09 | 15 | 0.65 | 2215 | 0.23 |
| 12 | NQ01 | 11 | 0.60 | 77027 | 7.99 |
| 13 | NQ02 | 14 | 0.77 | 44167 | 4.58 |
| 14 | NQ03 | 19 | 0.84 | 62495 | 6.48 |
| 15 | NQ04 | 14 | 0.69 | 28359 | 2.94 |
| 16 | NQ05 | 17 | 0.79 | 18721 | 1.94 |
| 17 | NQ06 | 20 | 0.87 | 53995 | 5.60 |
| 18 | NQ07 | 16 | 0.73 | 5110 | 0.53 |
| 19 | NQ08 | 17 | 0.77 | 5191 | 0.54 |
| 20 | NQ09 | 24 | 0.96 | 7465 | 0.77 |
| 21 | NQ10 | 11 | 0.54 | 280 | 0.03 |
| 22 | NQ11 | 14 | 0.62 | 585 | 0.06 |
| 23 | ROC | | | 5615 | 0.58 |
| 24 | R | | | 3185 | 0.33 |
| 25 | T | | | 10 | N |
| Grand Total | | | | 964634 | 100.00 |

11. Salient Features:

- i. Out of the total surveyed area of 964634 ha, 468885 ha (48.61%) have been categorized as very high and 81690 ha (8.47%) as high priority.
- ii. Out of the total 1677 Micro-watersheds covering 964634 ha, 847 Micro-watersheds (468885 ha) have been categorized as very high and 140 Micro-watersheds (81690 ha) as high priority.
- iii. Around 25.65% area of Kinnaur district and 31.42% area of Lahul Spiti district fall under very high and high priority category.
- iv. The land use of the catchment area comprises 12524 ha under cultivation, 48837 ha under forest, 392885 ha under grass land/pasture (<10% canopy), 284611 ha area under snow covered throughout the year, 127609 ha under snow covered for 7-9 months, 89358 ha as barren land, 5615 ha under rock out crop and 3195 ha area under water-bodies i. e. river etc.