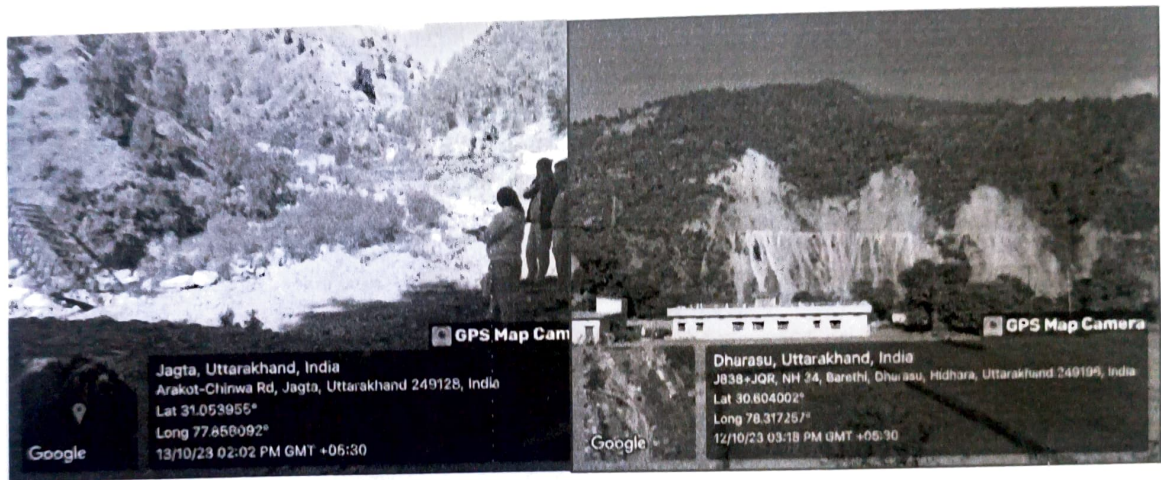
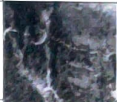


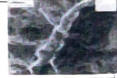

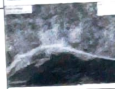

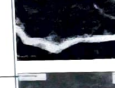







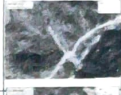

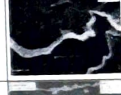

Field Visit Bhagirathi Valley (Rishikesh-Harsil)








A field visit was conducted from 10-14 October, 2023 in the Bhagirathi Valley. There are a total 39 most prominent known landslide locations between Rishikesh to Harsil, along with some locations found in the Yamuna Valley and along state highways. The state highway in Mori Block, Uttarakashi District, has some documented chronic landslides as well. THDC and BRO are now working on 16 out of the 39 landslides locations, while 23 still require work to be started. Information such as slide type, land status, priority level, dimension, and status, were gathered using a comprehensive framework or schema. The Arakot Chinwa landslip is particularly chronic and vulnerable, necessitating rapid treatment as per the field assessment.







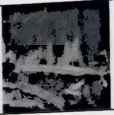
| S.no | Latitude | Longitude | Chainage | Landmark/Nearby Village | Type of Road | Villages | Type of Land | Status of work /DPR | Type of Slope Failure/Landslide /subsidence | Adjacent Land use | Photos |
|------|-----------|-----------|----------------|-------------------------|--------------|---------------|----------------|---------------------|---|---|---|
| 1 | 30.679966 | 78.230343 | | Banotpalla | | | | | | |  |
| 2 | 31.053546 | 77.857241 | Chainage 3/28 | Arakot chinwa | VR | MalanaTok | Reserve Forest | | Rock fall and Subsidence | |  |
| 3 | 31.054653 | 77.845286 | Chainage 4/18 | | | | Revenue Land | | Horticulture area cracks are developed around 2 to 2.5 mt rock scar developed. Road become narrow | |  |
| 4 | 31.054613 | 77.84521 | Chainage 5/19 | Kotigaad Road | VR | Moldi village | | | Active landslide | Community + Road + Agriculture + Water Body | |
| 5 | 30.694154 | 78.463257 | Chainage 15.35 | Bhatwari | | | Reserve Forest | | | | |
| 6 | 30.867991 | 78.654834 | Chainage 55.25 | Gagnani | | Gagnani | | | Severe Rock fall | Vegetation dense |  |

| | | | | | | | | | | | |
|----|-----------|-----------|------------------|-----------------|---------|--------|--|-----------------------|--|------------------|---|
| 7 | 31.008175 | 78.708426 | Chainage 35.120 | SUKHI | | Sukhi | | THDC - 2014 | | |  |
| 8 | 30.755654 | 78.5715 | Chainage 78.6 | | | | | | | |  |
| 9 | 30.814117 | 78.620354 | Chainage 78.6 | Jakhol | Boulder | | | | | |  |
| 10 | 30.75486 | 78.56138 | Chainage 79.5 | laldang | | | | | | |  |
| 11 | 30.742642 | 78.49241 | Chainage 87.70 | Natala | | | | | | |  |
| 12 | 30.466424 | 78.371707 | Chainage 98.9 | | | | | | | |  |
| 13 | 30.603995 | 78.317286 | Chainage km2 1/2 | Barethi Dharsau | MDR | | | | | | |
| 14 | 30.727029 | 78.41935 | Chainage 2.8 | Manera Ground | MDR | Manera | | 500 mt Complete Patch | | Drainage /stream |  |

| | | | | | | | | | | | |
|----|-----------|-----------|----------------|--|----|-----------------------|--|------------|----------------------|-------|---|
| 15 | 30.694154 | 78.463257 | Chainage 9.275 | Sada Gadhera | VR | sada | Revenue & Private Community Private, Agriculture | | Moderate Debris/muck | water |  |
| 16 | 31.053445 | 77.855532 | Chainage 10/17 | Barnali Aarakot Chinwa Bridge | | | | | Heavy communities | |  |
| 17 | 30.606373 | 78.314562 | Chainage 53 | Sh -16 (Batheti - Banchauri - bhadrigaad) | SH | 40 Villages connected | | No take up | Active landslide | |  |
| 18 | 30.867991 | 78.654834 | Chainage 58.5 | Tihar | | | | | | |  |
| 19 | 30.442551 | 78.383251 | Chainage 92.50 | Rautli | | | | | | |  |
| 20 | 30.468266 | 78.373734 | Chainage 98 | Ojhanautar | | | | | | |  |
| 21 | 30.284242 | 78.368357 | Chainage 45 | Khadi | | | | | | |  |

| | | | | | | | | | | | |
|----|-----------|-----------|-------------------------|-------------------------------|--------|--|-----------------------------|------|---|-----------|---|
| 22 | 30.143734 | 78.289967 | Chainage 11 | Pathau | | | | THDC | Rock fall boulder | |  |
| 24 | 30.165669 | 78.294738 | Chainage 18.26 to 18.46 | Ranipokhari road also damaged | | | Reserve forest | THDC | | |  |
| 24 | 30.165973 | 78.294951 | Chainage 18.46 | Pater | | | | | | |  |
| 25 | 30.165964 | 78.294927 | Chainage 21.9 to 22.07 | | | | Reserve forest | | Cohision less, sandy stone type | |  |
| 26 | 30.284242 | 78.368357 | Chainage 43.5 | Khadibander | | | Private Land + Revenue Land | THDC | Road Shrinking & Most priors charonically | Community |  |
| 27 | 30.264888 | 78.36882 | Chainage 41.16 | Jajal | Jajal | | | | | |  |
| 28 | 30.145042 | 78.285241 | Chainage 10.3 | Chamba | Chamba | | Reserve forest | | Big Rock boulder & Active Landslide | |  |
| 29 | 30.144128 | 78.287147 | Chainage 10.75 | Chamba | | | | | | | |
| 30 | 30.082898 | 78.246369 | Chainage 6.6 | Bhattowala | | | | | | | |

| | | | | | | | | | | | |
|----|-------------|-------------|-----------------------|---------------|-----------|----------------|--|--|--|--|---|
| 81 | 30 368011 | 78 306464 | Chainage 61 77 | Chamba | | | | | | | |
| 82 | 30 367911 | 78 306400 | Chainage 61 | Chamba tunnel | Uniyalgao | | | | | | |
| 83 | 30 367911 | 78 307124 | Chainage 82 87 | Ratnogaad | | | | | | | |
| 84 | 30 330651 | 78 367021 | Chainage 56 | Haswangao | | | | | River Blockage in future and also road Damaged | |  |
| 85 | 30 325861 | 78 362 | Chainage 52 | Ratoshain | | | | | | |  |
| 86 | 30 814111 | 78 620354 | Chainage 60 200 | Helgu | Helgu | | | | Rock boulder | |  |
| 87 | 31 058601 | 77 857404 | Chainage 3/28 to 3/21 | Tikochi | Tikochi | | | | Rock fail Subsidence 2019 august cloud burst & after which soil erosion expedite | |  |
| 88 | 31 01 12 28 | 77 51 27 40 | Chainage 13 550 | Chiwa | Chinwa | Reserve Forest | | | Landslide effected due to Cloud burst | | |

| | | | | | | | | | | | |
|----|-----------|-----------|-----------------------------|---------------|--|-------|----------------|--|--|-----------|---|
| 39 | 31.053443 | 77.855485 | Chainage 10/17 | Jagta village | | Jagta | | | Landslide, Drainage problem | | |
| 40 | 30.694154 | 78.463257 | Chainage 9.3 | | | | Reserve Forest | | Active landslide 2023 | | |
| 41 | 30.145 | 78.285328 | Chainage 10.600 to 10.75 | | | | | | Active landslide, loose material, debris fall, mass failure | | |
| 42 | 30.264888 | 78.36882 | Chainage 32 | | | | | | Shrinking zone approx 100 mt | | |
| 43 | 30.264888 | 78.36882 | Chainage 43.06/ 43.170 | Khari Market | | | Revenue Land | | | Community |  |

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