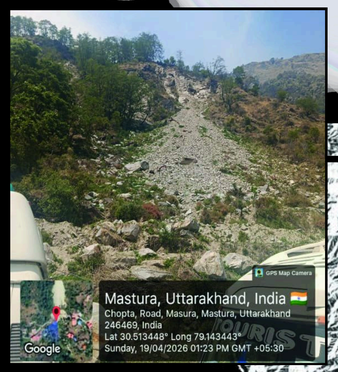
Community Iso… Risk along the NH-7 Himalayan Corrido…

A Spatial A… …ent of Village Accessibility Exposure associ… …the NH-7 Transport Corridor





WORKFLOW

Domain Delineation
15 km NH-7 Buffer & 3,419 Village Extraction

Terrain Processing
Copernicus GLO-30 DEM Elevation & Slope

Proximity Analysis
Continuous Distance Rasters (Roads, Health, NH-7)

Zonal Aggregation
Polygon Summary Metrics & Census 2011 Join

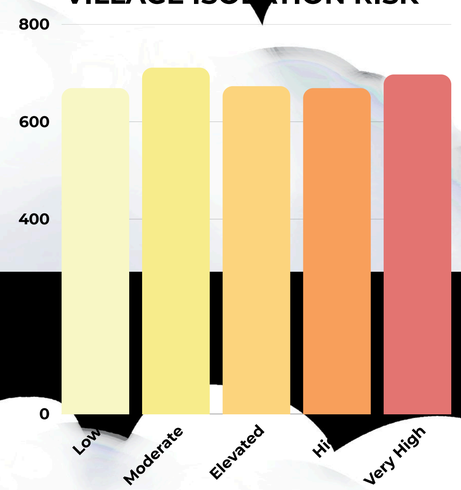
Index Integration
Standardized Multi-Criteria Synthetic Index

AHP MULTI CRITERIA WEIGHTS

Road	46.91%
Healthcare	20.10%
NH-7	20.10%
Slope	8.62%
Elevation	4.27%

Reclassification
5-Tier Isolation Risk Mapping (Low to Very High)

VILLAGE ISOLATION RISK



Village distribution across five community isolation risk classes.

VILLAGE ISOLATION RISK

- Low
- Moderate
- Elevated
- High
- Very High

ROAD NETWORK:
- National Highway

HEALTH ACCESS:
- Facilities

0 25 km 50 km

DATA SOURCES

Village & Demographics: Census of India, 2011
Road Network & Health Facilities: © OpenStreetMap contributors
Elevation: Copernicus DEM GLO-30, ESA

TOOLS USED

This map assesses relative community isolation among villages along the NH-7 Himalayan corridor in Uttarakhand. A 15 km corridor buffer was analysed using road accessibility, healthcare proximity, NH-7 proximity, slope and elevation. An AHP-weighted multi-criteria index was developed to classify 3,419 villages into five relative isolation levels, from Low to Very High.

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