

## ***Problem 7: Road Network/ Drainage Maps***

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### **Study Area:**

Towards the western part of Himachal Pradesh lies Chamba, 1 of the 12 districts of the state and is surrounded by lofty mountains. The study area is Bharmour and Chamba tehsil of Chamba District and are located in south eastern part of the district. This area for a very long time remained untouched by the hands of urbanization, but the recent decades have seen a spur in road construction activities for better connectivity.

### **Data Source:**

The satellite imagery used for identifying roads is Resourcesat 1/2 LISS 3 image for the month of March 2018 as it was the latest satellite data present in the archive. The data was downloaded using BHUVAN – geospatial portal. For spatial context the district shapefiles given were used.

### **Software:**

QGIS -3.14 an open source software is used for the digitization and mapping purpose.

### **Methodology:**

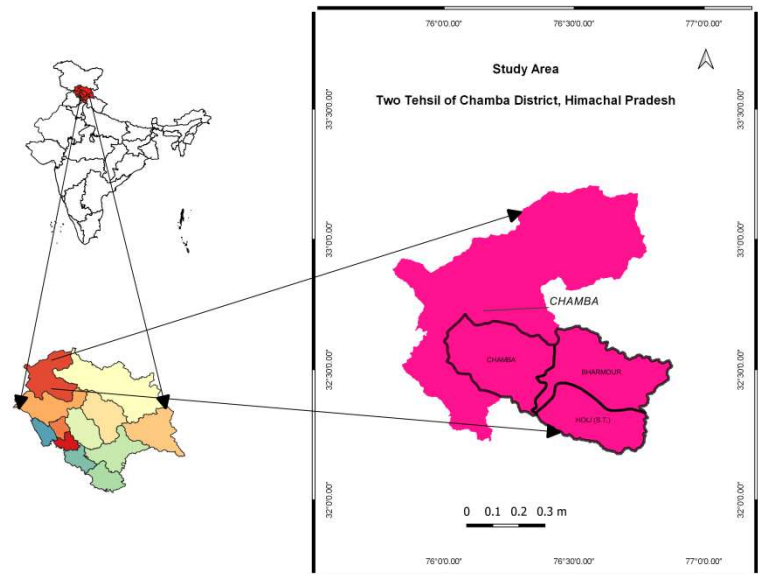
The problem statement selected is Road Network. This is prepared by visual interpretation of the satellite imagery. As the spatial resolution of the image is coarse hence we require some prior knowledge of the region so that an estimate can be made for the regions obscured by the shadow. By using various false color composite visual identification of roads was done and the roads were digitized and further categorised into four major types; National Highway, State Highway, Major District Roads and Other District Highways. A proportionate symbology was used for showing the hierarchy of roads.

### **Application and uses:**

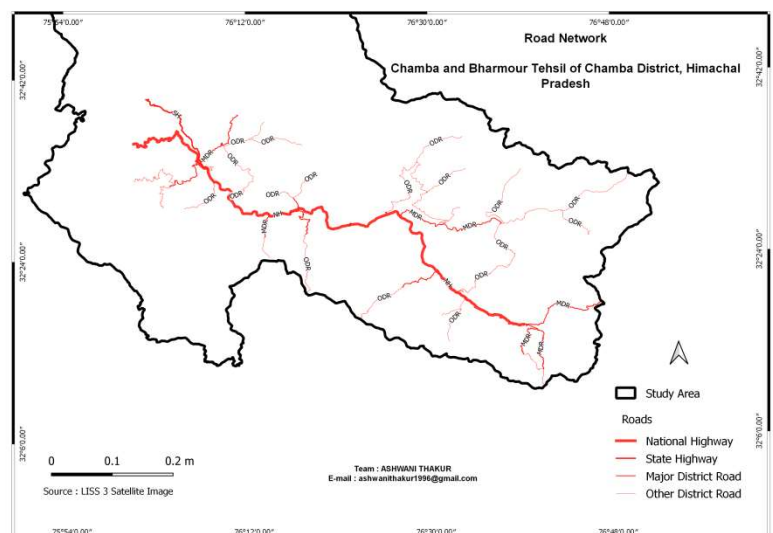
This map is a public utility map which can be used by:

1. Public for Navigation (guide)
2. Planners for site suitability (apple orchids), disaster management (landslides)

(Higher Resolution maps have been attached along)



MAP 1



MAP 2