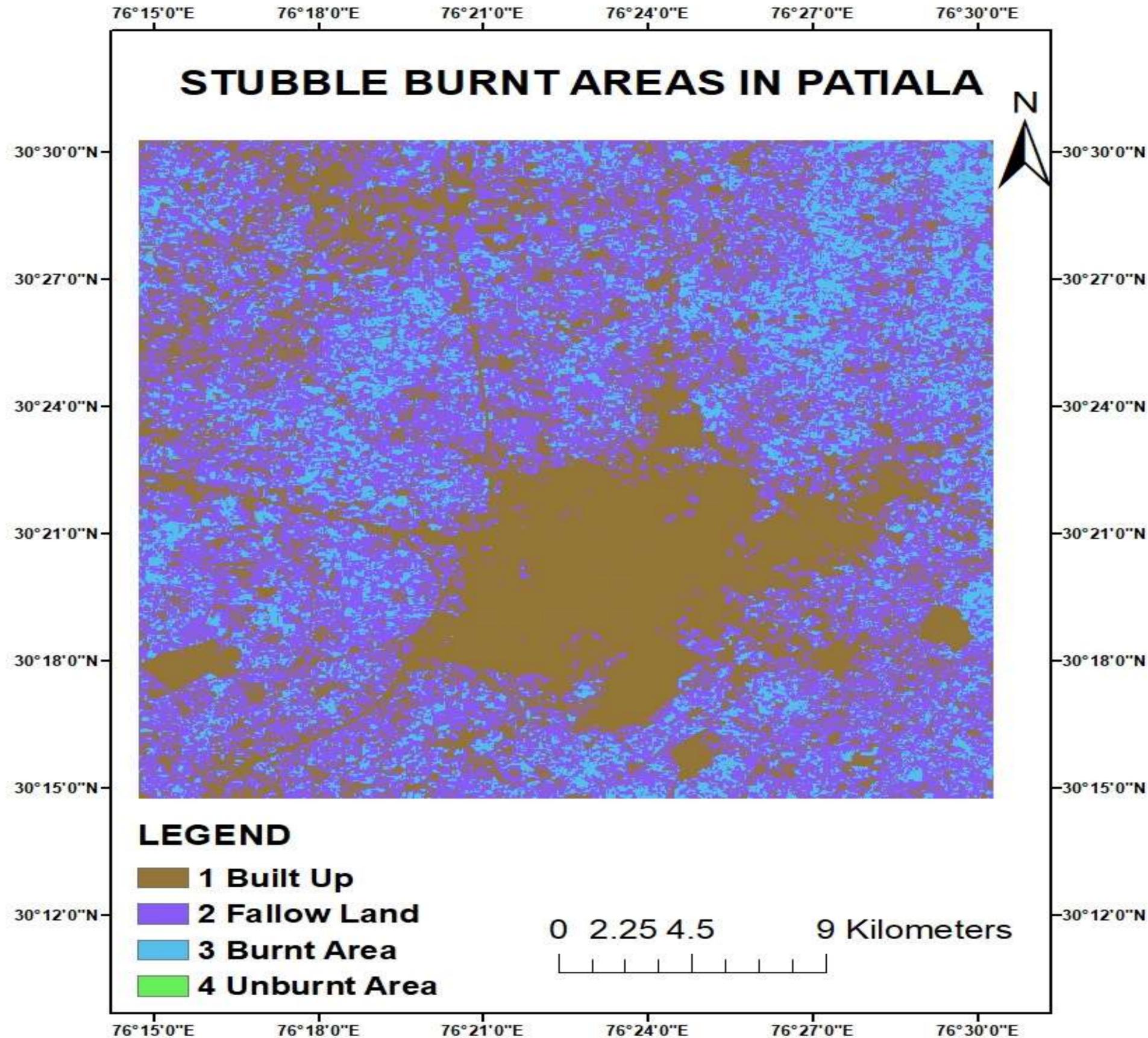


TITLE : STUBBLE BURNT AREAS IN PATIALA, PUNJAB

Map description and analysis



Introduction:

Stubble burning is the process of intentionally setting fire to the straw stubble that remains after harvesting. India generates on an average 500 Metric tons (Mt) of crop residue per year and 92 metric tons of crop waste is burned.

Role of Remote Sensing and GIS:

- Remote sensing can be used as an effective method for determining the stubble burn area.
- The burned area mapping aims at detecting and delineating the scars left by fires by the usage of their spectral signature.
- LISS III and AWiFS images can be used to estimate the stubble burn area.

Burnt area identification using NBR index:

- NBR index utilizes the Near Infrared (NIR) and Short Wave Infrared Bands (SWIR) of the remote sensing data.
- A high NBR value indicates healthy vegetation, whereas low value indicates recently burn areas.
- A threshold value of ΔNBR (0.5-0.7) is used for differentiation of burned pixels.
- In this map, Built up area, Fallow land, Burnt area and Unburnt area are shown.
- From the calculations, burnt area obtained is 126.65 km².

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