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## Geospatial Mapping of Singhbhum Shear Zone (SSZ) with Respect to Mineral Prospecting

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### ABSTRACT

Singhbhum Shear Zone is a highly mineralized zone having variety of minerals, predominantly those of uranium, copper and some sulphide minerals. From Remote Sensing data it is possible to decipher the regional lithology, tectonic fabric and also the geomorphic details of a terrain which aid precisely in targeting of metals and minerals. Mapping of mineralized zones can be done using Geospatial Technology in a GIS platform. The present study includes creation of various maps like lithological map, geomorphological map, contours and slope map using satellite data like IRS LISSIV and ASTER DEM which can be used to interpret and correlate the various mineral prospective zones in the study area. Even the alterations of the prevalent mineral zones can be mapped for further utilization strategies. The present work is based on the investigations being carried under ISROSAC Respond Project (Dept. of Space, Govt. of India SAC Code: OGP62, ISRO Code: 10/4/556).

### KEYWORDS

Singhbhum Shear Zone, Geospatial Mapping, Mineral Prospecting, Alterations, Sulphide Ores

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