

## ANALYSIS OF DIGITAL ELEVATION MODEL OF RAJGARH FOREST DIVISION HIMACHAL PRADESH USING SHUTTLE RADAR TOPOGRAPHY MISSION DATA AND GIS TECHNIQUES

**Varun Attri\*, D.P. Sharma, Vipasha Negi and Navjot Singh Kaler**

*Department of Silviculture and Agroforestry,  
Dr. Y.S. Parmar University of Horticulture and Forestry,  
Nauni, Solan (Himachal Pradesh) 173230  
Email: [attrivarun86@yahoo.com](mailto:attrivarun86@yahoo.com)*

*Received-15.07.2017, Revised-27.07.2017*

**Abstract:** The present study highlights the use of DEM and its analysis on aspects. SRTM data and GIS techniques are helpful to analyze the Elevation characteristics of hilly terrain. The SRTM data were downloaded and used for the present study. The study area covers an area of 820.02 Km<sup>2</sup> in parts of Rajgarh Forest Division, Himachal Pradesh. The result of elevation variation using DEM was analyzed and its classification is given below. Using this DEM output as input in ArcGIS to prepare the aspect details of the study area is attempted. This output has immense application in proper planning and management of various natural resources and also highly useful for the natural disaster management studies.

**Keywords:** Relief, GIS, Remote Sensing, SRTM, Aspect

### REFERENCES

- BeijingRabus, B., Eineder, M., Roth, A. and Bamler, R.** (2008). The Shuttle Radar Topography Mission -a new class of digital elevation models acquired by space borne radar. *ISPRS J. Photogramm. Remote Sens.*, 57: 241-262.
- Chavare, S.** (2011). Analysis of Relief of Kolhapur District using SRTM Data and GIS Techniques. *Int. Ref. Res.*, III(26): 12-13.
- Goncalves, J. and Fernandes.** (2005). Assessment of SRTM-3DEM in Portugal with topographic map data. Proceedings of the EAR Sel Workshop on 3D Remote Sensing. Porto, June, 2005. (CD-ROM).
- Gurugnanam, B. and Kalaivanan, K.** (2014). 3D Model Conception of Kolli Hill Using Geospatial Technologies. *Int.J. Res.*, 1(10): 391-399.
- Gurugnanam, B. and Kalaivanan, K.** (2014). Village Level Detailed Relief Map Preparation Using SRTM Data and GIS in Kolli Hill, Tamil Nadu, India. *Int. J. Sci. Res.*, 3(9): 184-185.
- Mani, P.** (1976). Report on the investigation for Bauxite in KolliMalai, Salem District, Tamil Nadu. Progress Report for the Field Season 1975 -1976. Geological Survey of India, Tamil Nadu Circle, Madras.
- Rodriguez, E., Morris, C.S. and Belz, J.E.** (2006). A global assessment of the SRTM performance. *Photogramm. Eng. Rem. Sens.*, 72: 249-260.
- Smith, B. and Sandwell, D.** (2003). Accuracy and Resolution of shuttle radar topography mission data. *Geophys. Res. Lett.*, 30: 9.
- Swaraj, J. and Anji Reddy, M.** (2013). Generation and Evaluation of Cartosat -1 DEM for Hyderabad city. *Indian J. Appl. Res.*, 3(4): 191-192.

\*Corresponding Author