

Towards the Transformation of Digital Elevation Model (DEM) into Elevation Profile using Aggregated Transect Line

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Abstract: Transect mapping is a cross-sectional representation of different agro-ecological zones and it describes the distribution of resources, features, landscape and main land uses along the given transect. This community-based mapping tool requires an elevation profile of the area. However, existing mapping tools describes elevation profile through a transect line from Point A to Point B, which does not describe the overall elevation profile of the area. In this paper, a method is proposed to generate elevation profile of the given area by aggregating the families of transect line from the centroid to the subsequent points in the boundary. The results shows a significant similarity of our method from the exhaustive placement of points both horizontally and vertically.

Keywords: DEM, Aggregated Transect Line, Transect Map, Elevation Profile