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Investigating the Dissection Index of the Rajmahal Highlands (Eastcentral), Jharkhand: Geomorphological Insights

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Abstract: This study investigates dissection index of the Rajmahal Highlands (Eastcentral), classifying it into four major categories: High Dissection Index Zone, Moderately High Dissection Index Zone, Moderate Dissection Index Zone and Moderately Low Dissection Index Zone. The Maximum dissection index is 0.55, while the minimum dissection index is found 0.0008. A detailed and important study of dissection index have been made because it is an important element of relief measures and also have direct and indirect influence on agricultural landuse within the present study area. The primary objective of this research is to study, understanding, classify into major categories, find out spatial variation or distribution, and highlight some of the details which ultimately determine the socio-economic landscape of the region.

Keywords: Dissection Index, Eastcentral, Highlands, Rajmahal

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1. Introduction

The Rajmahal Highlands (Eastcentral) is a distinct physiographic region located in the northeastern part of the Indian state of Jharkhand. The region lies within the geographic coordinates ranging approximately from 23°55'15" North to 24°10'15" North latitude and 86°56'00" East to 87°30'00" East longitude, situating it within the transitional zone between the Chotanagpur Plateau (Fig.1). Total area of about 1164.6 sq. kilometres, the study area comprises the entire portion of Dumka, Ranishwar and Shikaripara administrative bocks of Dumka district of Jharkhand and lies in the present study area. Within this geographical domain,