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# Active Lineaments Mapping Within Karonga Area

The Karonga area is located at the top most part of Northern Malawi and Southern part of Tanzania of Rungwe volcanic region within the EARS. Structurally, the area is defined by almost N-S and NW-SE trending faults .Topographically, the area is mostly hilly and highly faulted as evident from hill shaded SRTM DEM. These faults form part of the extracted lineaments. Automatic extraction of lineaments from satellite data or images (shaded STRM DEM with different solar azimuth) was derived using the LINE Module in PCI Geomatica. LINE Module parameter adjustment for lineament extraction in PCI Geomatica was done in reference to the geology and structural setting of the area. Active lineaments were mapped by integration with seismic data for the area; this process involved defining the buffer zones around earthquake epicenters and hypocenters which were obtained by applying mathematical calculations. Analysis of active lineaments / faults within Karonga area has shown that the central-southern part of Karonga is more active than the rest of the areas; this implies that the rift in this area is opening up fast. Hence further research should consider using geophysical methods.
KEY WORDS: Automatic lineaments extraction, Active Lineaments, Satellite Data, Seismic data.

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