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Using Global Datasets in Local Geomorphic Applications

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The availability of geospatial data is often patchy and limited due to price, confidentiality or bureaucratic hurdles. This presentation focuses attention to applications that draw on freely available, global data sets, that are able to deliver at the scale of local applications. Particular emphasis is placed on remotely sensed data, elevation and topographic products with emphasis on geomorphic applications in the southern African domain. This presentation draws on freely available data and examines its potential and limitation in deciphering surface process, forms and dynamics with case studies on the Kalahari and Namib environments. It showcases usage of Landsat, SPOT, ASTER, SRTM, MODIS, GDEM, Icesat and Sentinel data and its fusion with national datasets available in both Botswana and Namibia. Examples include, rifting, palaeo lake levels, contemporary land surface dynamics and change, aeolian processes and hydrological applications.

