Journal of
Earth Science & Climatic Change

Zhu, J Earth Sci Clim Change 2016, 7:4
10.4172/2157-7617.1000348

Research Article Open Access

e geomorphological evolution of the Namibia has been systematically reviewed by Owono et al. [7]. In their document, the geomorphological evolution of Namibia dates essentially from the Jurassic-Cretaceous monoclinal folding of the southern African continental margin in response to the fragmentation of Gondwana. Later on, the region underwent a signi cant attening. A er this event, the formation of laterite occurred in Namibia during the late Cretaceous-middle Eocene [35]. Another well-described event a ecting the morphology of the region is the upli of the South Namibia Plateau (SNP). Burke and Gunnell [36] proposed a post-Oligocene age for the upli and tied it to the mantle-related "swell" dynamics of the African continent. Partridge and Maud [37] suggested a very recent age of upli (late Pliocene).

A morphological analysis of the modern landscapes in the south Namibia was conducted by Owono et al. [7]. Geometrical parameters as listed in Table 1 were calculated through the DEM, slope map and transverse pro les. e results showed that the modern-scale landscape of the South Namibia is controlled primarily by tectonics and also by the lithology, base level and climate.

(Seen from the calculated geometrical parameters, the negative and very low ICs (<0.3) combined with low values of TTSF (<0.5) and the Af (Table 1) occur in the south Namibia [7]. It implies that the south Namibia underwent an inhomogeneous upli or several episodes of upli . According to Hack [38], when the uvial incision rate exceeds the upli or base level lowering rates, the pro le goes to a steady state with a smooth downstream concavity. is is not the case for either of the coastal network pro les in the south Namibia, where very important jumps and numerous knick points have been observed and the internal

than drier conditions during the mid-Holocene SH summer insolation minimum. It was thus suggested that south-western Africa responds in phase with NH summer insolation [53], namely getting wetter during

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Work from Eitel et al. [103] shows that Vertisol–Kastanozem–Calcisol soil associations occur widely (as patches of several hundred hectares in extent). On the cause of genesis, the dark surface soil horizons of Vertisols, Kastanozems and Calcisols should be formed under open grasslands. However, Kastanozem formation cannot be explained by the environments that exist at present. e humi cation suggests an open savanna environment in the past and does not accord with the shrub lands and thornbush savanna at present. erefore, degradation and deserti cation (man-made aridi cation) of dry lands in northern Namibia could be developed during the Holocene. For example, environmental studies in the Karroo show that in the Late Holocene the rst degradation of the natural vegetation was initiated in pre-colonial times by hunting and gathering herders [104].

For environmental changes in the northern Namibia in modern times, We99(o)12(r)]TJETEM7]

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