

Effect of topography and geology on vegetation decline in small-scale agricultural area of northwest Namibia

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In order to address the desertification of each region, it is necessary to understand the interaction of local environmental factors. In this study, we have investigated the relationship between the vegetation decline and topographic and geological condition in Kaoko land, northwestern Namibia. This study area is located in the semi-arid region of 100-200mm annual rainfall. The small-scale stock farming in communal land is conducted in this area. The vegetation decline and land devastation seen to be caused by overgrazing has been recognized. The decline of the vegetation does not occur uniformly. The degree of decline is different between the topographic surfaces. On the terraces, the vegetation declines by overgrazing induce the gravel accumulation at the surface under the influence of wind erosion. As a result, the vegetation reaches the irreparable situation. On the other hand, such gravel accumulation is difficult to occur on the pediment that is covered by fine granule produced by physical weathering.

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