

D-22: Study of pliestocene gravel beds in the Kataragama area

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The gravel beds formed during the Pliostocene period were one of the important geological phenomena observed in the area around Kataragama. Due to their extensive distribution and abundance, some problems relevant to cultivation and irrigation of land exist. A study was carried out (a) to analyse some granulometries and (b) to examine the effect of gravels as soil material on agricultural practices.

During the field work, landforms associated with gravel beds were mapped to understand their origin and spatial distribution. Some cross-sections were measured to unravel their vertical extent. Gravel taken from the collected representative samples were measured to obtain angularity and roundness.

The results showed that the gravel beds were always associated with the slopes of the Kataragama hills which had been explained as a specific geological formation of the island. Four categories of gravels can be identified depending on their granulometries. Different types of gravel effected the wilting point of plants. Percolation of water was governed by the types of gravel beds effecting wetness of soil. The questionnaire survey carried out on the agricultural sector showed that specific practices were adopted by peasants to cultivate the gravel dominated land. Value of the agricultural land in the Kataragama area depended on the occurrence of gravel beds.