



Impacts of human activities on soil erosion: A case study in Wewere GND, in Minipe DSD.

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Abstract

Human activities influence heavily on soil erosion in Sri Lanka. Soil erosion in rural areas is high, due to various human activities. Wewere GND is selected for this study as there was high consumption of land for agriculture in Kandy district. The main objective of this study is to identify the human activities which accelerate the natural process of soil erosion and provide the solution to conserve soil erosion. The methodology of the research was a mixed-method under the holistic approach. Hence to achieve the target, Wewere GND was divided into 7 land units according to the types of human activities in the area and obtained 1 kg of soil from each land unit through the simple random sampling method. Further, experiments were conducted in the laboratory and the final results were analyzed. The results were represented with maps using Arc GIS and charts, graphs, tables using MS Excel. 100g of soil from each soil samples were taken, 2mm sieved each sample and obtained 2 fractions to determine their particle sizes. The fraction which is more than 2mm (+2mm) is selected as the results of each sample. Sub forest represented 4.82 %, crop cultivation represented 41.36% of soil particles(+2mm). The result substantiated high soil erosion was represented in crop cultivation (41.36%) due to the human activity and less was represented in sub forest (4.82 %). The mismanagement of land, proper soil conservation measures are not being adopted to the villagers, improper land use and less knowledge are the causes of accelerated soil erosion in Wewere GND. Vegetative methods, structural methods, management practices, and awareness programs should be executed to the conservation of soil erosion in the research area. The management of agricultural systems must be carried on the sustainable approach and related authorities should pay attention to minimize soil erosion.

Keywords: soil erosion, human activities, Wewere GND.

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