

Study the Anthropogenic Activities that Accelerate Soil Erosion: A Case Study in Wewere GND in Minipe DSD, the Kandy District

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Soil erosion is one of the natural hazards of the world. However, recently soil erosion has accelerated because of anthropogenic activities. The Wewere GND is selected for this study as there was high consumption of land for agriculture. The main objective of this study is to identify the anthropogenic activities that accelerate soil erosion. The methodology of the research was mixed method under the human ecological approach. Hence to achieve the target, the Wewere GND was divided into 7 land units according to the types of human activities in the area and 1 kg of soil was obtained at a depth of 8 cm from each of the 7 land units through the simple random sampling. Laboratory and field experiments, direct interviews, field observation, and questionnaire survey techniques were used to collect primary data while secondary data were obtained from relevant government institutions. The quantitative and qualitative data were analyzed under statistical and descriptive data analysis methods. The results were represented with maps using Arc GIS 10.3 software and charts, graphs, tables using MS Excel. The soil particle sizes were determined using 2 fractions of 2 mm sieved soil obtained by extracting 100 g of soil from each of the soil samples. The fraction which is more than 2 mm (> 2mm) is selected as results of each sample. Sub forest represented 4.82 %, crop cultivation represented 41.36% of soil particles (>2 mm). 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, improper land use, and lack of knowledge are the causes of accelerated soil erosion in the area. Vegetative method, structural method, 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, Anthropogenic activities, Wewere GND