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An Investigation on Consequences of ecotourism on rangeland carbon sequestration (Case Study: Miankale biosphere reserves)

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Abstract

One of the methods to increase the incomes utilization of range is recreational use from rangelands, but these uses can have negative effect. So in this study, we were investigated the effect of recreational use from rangeland on carbon sequestration in Miankale biosphere reserves. In order to, after preliminary identification, for sampling from ecotourism area and non-ecotourism area, two control areas were recognized. Sampling from plant spesies for estimate biomass and density was used by systematic-random method in 120 plots 1m2 and 12 transect with 50 meters was done, these transect have 100 m distance than each others. For calculate the amount of carbon soil, in each control site 5 soil sample from (0-15cm) depht were taken. For compare the carbon sequestration by soil and plant biomass in two site t_test was used. Result showed decrease the carbon sequestration in soil and plant in ecoturism site than non ecoturism site and economic damages estimated are more than 37000 dollars in hectare.

Keywords: carbon sequestration potantial, economic value, ecoturism, miankaleh

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