

Zabol University Graduate Management Faculty of Water and Soil Range and watershed management group

Dissertation for obtaining a master's degree in desert management

study impact of climate change on desert rangeland production in the Y.Y.-Y.Y. period(A case study: Mahlabad Rangland)

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Abstract

Saxaoul(Haloxylon spp)is one of the most important stabilizing of sand dunes for biological combating desertification. This plants with three main characteristics of drought and salinity(Halophyte) resistance and sand friendliness, is considered as the most compatible species among plants in desert and semi-desert areas and therefore has been widely used in the Iran to rehabilitate rangelands. The forage produced rangland play is very importantrole of on the welfare of local communities due to the strong dependence of farmers and rural communities. Accordingly, considering the important role of Malaabad rangland on livestock forage production and consequently the socioeconomic welfare of local farmers and the lack of pollution of this rangeland with pests and diseases, this rangeland for study impact of climate change on forage production(Revolution, global temperatures have risen, causing widespread and complex changes in the world's climate and, consequently, local climates. For this purpose, using the CanESM\(\gamma\) climate change model under RCP\(\xi\),\(\gamma\) and RCP\(\lambda\),\(\gamma\) scenarios of the fifth report and downscaling data by LS(linear scaling), DC(Delta-change) statistical methods.

The results show that in Y.Y.-Y.\\ period the rainfall of Nehbandan in both RCP\(\xi\),\circ\ and RCP\(\lambda\),\circ\ scenarios will be increase and as a result forage produced rangland will be increase if temperature will be stable.

Keywords: Climate Change, forage produced rangland, Malaabad rangland, south Khorasan Provency.