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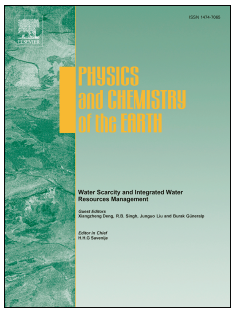

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Diffused impact of grassland degradation over space: A case study in Qinghai province

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Abstract

Our study aims to simulate and detect the interregional association of livestock production induced by grassland degradation in Qinghai province by TERM (The Enormous Regional Model). The shock variable, grassland degradation, is set and calculated by using its proxy, change of grassland area. We conclude that grassland area is decreasing during 1990-2008 in Qinghai province, and the average reduction rate is 1.591%. And grassland degradation in Qinghai province has a marginal effect on the other regions in China. Livestock production of the other 30 provinces expands in the case of the exogenous shock, and this impact is greater with a variation above 0.05% in Inner Mongolia, Tibet, Ningxia province and so on than the other regions. Thus, construction of ecological projects like natural reserves in Qinghai province for ecosystem conservation and livestock grazing benefits interregional equity and shrink their differences.

Keywords: Grassland degradation; livestock production; TERM model; Qinghai province