

论文

高原牧区草地变化对牧民粮食安全的影响——以青海省达日县为例

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摘要:

农业区和牧业区的粮食安全在概念上存在着一定的差别,在关注农业区粮食安全的同时,牧业区粮食安全的研究也值得重视。论文从青海省达日县牧区牧民食物能量折算入手,构建了最小人均草地面积和草地压力指数两个计算方法,并以乡为基本单元,对各县粮食安全进行定量计算。计算结果表明:达日县1987-2007年最小人均草地面积和草地压力指数呈增加趋势,1997年粮食安全区、警戒区、短缺区、危机区4个等级均有分布,至2007年该区域已全部演变为粮食短缺区和危机区,主要原因是草地退化严重,人口数量增加,人均草地面积减少以及技术和物质投入不足,牧业生产条件恶化。

关键词: 土地利用变化 牧区粮食安全 最小人均草地面积 草地压力指数 达日

Effect of Grassland Change on Food Security in Alpine Pastoral Area-A Case Study in Dalag County, China

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Abstract:

Land use change and its effect is one of the hotspots of global change research. It has always been more concerned about the cultivation of agricultural land use changes in food security, but the pastoral land use change on food security impact is significant deficiencies. It is different in the concept of food security in agricultural areas and pastoral areas. Besides agricultural areas of food security, pastoral land use change on food security study also deserves attention. In this paper, Dalag County, Qinghai Province in western China was taken as a case study area, and the township was taken as research unit. A model is built including the smallest per capita grassland area and grassland pressure index to calculate the food security of each township. There are similar trends of the food security in Dalag County and 10 townships which belong to Dalag from 1987 to 2007. With the animal husbandry production conditions showing deterioration, inadequate technical and material inputs, grassland degradation is getting more serious, the population increased and real per capita grassland area decreased, while the smallest per capita grassland area and the grassland pressure index keep increasing. The calculation of the pressure index of each township in 1997 and 2007 showed that there are four levels of food security (security area, alert area, shortage area and crisis area) in 1997. The security area and the alert area did not exist in 2007, replaced by crisis area and a wide range of food shortages area. The pressure index on grassland gradually reduced from Manzhong, Xiahongke, Deang, Wosai and Jimai which lie in the eastern part with lower altitude, better climate and more human activity to Shanghongke, Moba, Jiangshe, Sangrima and Tehetu which lie in the western part, indicating that unreasonable human activities are one of the main driving forces for grassland degradation and food supply shortage. It could relieve grassland pressure status by taking active measures to control the speed of smallest per capita grassland area and improving animal husbandry technology.

Keywords: land use change food security in pastoral area smallest per capita grassland area grassland pressure index Dalag County

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