



The Characters of LUCC in Arid Oasis, Xinjiang

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Since 90s of 20th century, because of land utilization /land cover change(abbreviated as LUCC) influenced deeply on global change and human beings activities.

XingJiang Bortara river , Jing river area (abbreviated as Bor. Jing river valley) are the most important part of Tianshan north slop economic strip which is key developed by autonomy.

In recent 40 years, due to the rapid increasing of population, extensive farming on large areas of land with light outlay and labor, irrational development and utilization of resource, along with weakness and frequently happened natural disaster in arid area eco-environment, the problem of eco-environment for river basin is prominent, being the second ecology degeneration of XinJiang TaLimu river valley.

Using remote sensing imagery data of 1990,2000 and 2005, and taking the typical oasis in Bohe and Jinghe Watershed as the study area, the process and trend of oasis LUCC are analyzed by applying the methods of remote sensing(RS),geographic information(GIS) and statistics since 1990. The main results of oasis LUCC in Bohe and Jinghe Watershed are as follows from 1990-2005.(1)The change extent of oasis LUCC was that the farmlands increased steadily and the unused lands decreased quickly.Meanwhile, the woodlands decreased in previous decades and increased in next five years.(2) The type conversion of oasis LUCC shows obvious transitional process in bi-direction. But the status of oasis LUCC was quasi-balanced in transitional speed.(3) The degree of land using had improved. But the trend of that became slow.(4)The oasis stability became strong but the speed became slow in Bohe and Jinghe Watershed based on the theoretic analysis of the relation that land using affects oasis stability.(5)The changing in oasis land using are the results of inputting negative entropy by human- being.