World Academy of Science, Engineering and Technology
International Journal of Agricultural and Biosystems Engineering
Vol:8, No:08, 2014

The Impact of Climate Change on Cropland Ecosystem in Tibet Plateau

Authors : Weishou Shen, Chunyan Yang, Zhongliang Li

Abstract : The crop climate productivity and the distribution of cropland reflect long-term adaption of agriculture to climate. In order to fully understand the impact of climate change on cropland ecosystem in Tibet, the spatiotemporal changes of crop climate productivity and cropland distribution were analyzed with the help of GIS and RS software. Results indicated that the climate change to the direction of wet and warm in Tibet in the recent 30 years, with a rate of 0.79℃/10 yr and 23.28 mm/10yr respectively. Correspondingly, the climate productivity increased gradually, with a rate of 346.3kg/(hm2•10a), of which, the fastest-growing rate of the crop climate productivity is in Southern Tibet Mountain- plain-valley. During the study period, the total cropland area increased from 32.54 million ha to 37.13 million ha, and cropland has expanded to higher altitude area and northward. Overall, increased cropland area and crop climate productivity due to climate change plays a positive role for agriculture in Tibet.

Keywords : climate change, productivity, cropland area, Tibet plateau
Conference Title : ICACC 2014 : International Conference on Agroforestry and Climate Change
Conference Location : Barcelona, Spain
Conference Dates : August 18-19, 2014