

Impact of Climate, Climate Change and Modern Technology on Wheat Production in Nepal: A Case Study at Bhairahawa

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ABSTRACT

The relation between climate and wheat production in Nepal was studied for the period 1970/71-2007/08. Due to the topographical differences within short north-south span of the country, Nepal has wide variety of climatic condition. About 70 to 90% of the rainfall occurs during the summer monsoon months (June to September) in Nepal and the rest of the months are almost dry. Wheat is cultivated during the dry winter period and therefore, the supplementary irrigation plays a vital role in its cultivation. Varieties of wheat have been developed to suit the local climatic conditions. Due to the availability of improved seeds, modern cultivation practice and a supplementary irrigation; the wheat cultivation has increased substantially throughout Nepal. The national area and production of wheat has remarkably increased from 228,000 ha to 706,481 ha and 193360 mt to 1,572,065 mt during 1970/71 to 2007/2008 respectively. Future planning to increase the wheat production in Nepal should give due consideration to the effect of global warming also. The present rate of annual increase of temperature was 0.06°C in Nepal. Trends of temperature rise were not uniform in Nepal. An increase of annual temperature at Bhairahawa during 1970-2008 was only 0.018°C. However, the wheat growing seasons at Bhairahawa, the trend of annual maximum temperature during November to April was -0.0068°C during the study period. Though modern facilities such as irrigation, improved seeds and fertilizers are available to some extent, weather and climate still plays an important role in the increase of area and production of wheat in Nepal

Key words: climate change, plain low land (phant), global warming, trend
