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RATREE SOMPONG: INFLUENCES OF LAND USE AND FOREST AREA TO CHANGING OF CLIMATE CHARACTERISTICS: KANCHANABURI PROVINCE.THESIS ADVISORS: SUCHART NAWAKAWONG,M.Sc. MANU SRIKHAJON,M.Sc. DIRAKRIT BOHUWECH,M.Sc. 227 p. ISBN 974-664-043-7.

This relationship between the changing climate characteristics in the developing area and the forest area was studied in this thesis. The trend of climatic change and the comparision between the changing of the climate in the forest and the developing area was also discussed in detail. Amphure Muang and Amphure Thongphaphum were chosen as the developing area and the forest. The climatic data used was obtained by the Meteorological Department at the local office during 1978 to 1998. The information of the changing forest and land use was given by the satellite picture translation in 1980 ,1985 ,1990 ,1991,1995 and 1998. The research was studying in the quantitative and qualitative method. The data was analysed by using percentage ,maximum and minimum value, mean ,multiple regression and the stepwise regression method.

The results showed that the six climate characteristics have changed over every period of the study time. At the 99 percents confidential, Amphure Muang and Amphure Thong phaphum had a difference in a mean value. In Amphure Muang, the forest area and the water resource area affect the highest temperature, and only the forest area affects the lowest temperature. In Amphure Thong phaphum, the factor that affected the evaporation and rainfall wear forest area and water resources, respectively while relative humidity depends on water resource. Forest and agricultural-idle areas have an influence on the highest temperature and urban and built-up area has an influence on the lowest temperature. The agricultural-idle area has significantly curvilinear effect on the raining day.