

PREFACE

In the context of growing population pressure on existing land and increasing demand for food in developing countries like India, systematic land use studies with a distinct spatial perspective have a definite significance. This need made agricultural land use planning scientific. In the present work an attempt has been made to study and interpret the existing and changing agricultural land use pattern in Siliguri subdivision of Darjeeling district, West Bengal. The subdivision of Siliguri is a part of Terai region. Therefore, the study of agricultural land use of Siliguri Subdivision will help to a certain extent to understand the agricultural geography of Terai region. For the study of the changing agricultural land use pattern twenty two gram panchayats have been selected from four CD blocks. The study includes changing cropping pattern over the period of twenty years, i.e. 1990-91 to 2010-11. Every possible care has been taken in the accuracy, reliability and homogeneity of the statistical information given.

The thesis is designed into nine chapters. **Chapter I** discusses the Scope and choice of the region, Hypotheses, Objectives, Methodology and Sources of Data of the study area. **Chapter II** deals with the physical and cultural background of the study area. Physical set up of the study area includes relief, drainage system, climate, soil, and natural vegetation. Socio-economic set up of the study area includes population composition, occupational structure, land holdings, transport and communication and market centers. **Chapter III** discusses the existing and changing general land use pattern at G.P. level. The study of general land use pattern and its spatio-temporal change is carried out to identify the shifting pattern of land use. **Chapter IV** deals with the spatio-temporal change in agricultural land use pattern for twenty years to identify the shifting pattern of cropping. It specifically analyzes the direction in which cropping pattern is shifting and growth trend of area under individual crop. It also describes the impact of changing land use pattern on rural masses. **Chapter V** discusses the pattern of agricultural productivity in this subdivision. This chapter analyzes the productivity index for each crop and examined the significance of growth trend of yield rates. **Chapter VI** deals with the role of agricultural inputs including fertilizers, irrigation facilities, HYVs, agricultural implements like tractors, threshers; spray machines, etc. on cropping pattern. **Chapter**

VII gives an account on the delineation of agricultural land use regions. For this crop ranking regions, crop combination regions and crop diversification regions are delineated. **CHAPTER VIII** deals with the problems of agricultural development in the study area. The last chapter, **CHAPTER IX** is on major findings and conclusions.

I expect that my attempt to analyze spatio-temporal change in agricultural land use pattern for the subdivision of Siliguri of Darjeeling district, West Bengal will be useful to researchers and policy makers in stimulating further overall development of this sector.

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