'LAND UTILIZATION IN THE CENTRAL GUJARAT PLAIN'

ABSTRACT

The main aim of the present study is to work-out the influence of environmental factors on the agriculture of the area giving special emphasis on the distribution of crops and agricultural techniques. Another aspect of the study is to see how the prevailing agriculture has influenced the distribution of rural population and settlement.

The area under investigation 'The Central Gujarat Plain' comprises the district of Baroda and Panchmahals of the state of Gujarat, and is drained by the lower courses of the rivers Narmada, Mahi and their tributaries. There have been four considerations in selecting this area for the present study.

1. The area under investigation is significant from the viewpoint of its location as it lies in the transitional zone of the fertile agricultural lands of the north Gujarat Plain and the area of the Satpudas.

2. The area is relatively little studied and poorly known.

3. It is characterised by a great diversity in respect of relief, soils, population distribution, techniques of cropping and crop regions.

4. The author is well acquainted with the area. Being a resident of Baroda he felt that it would be a profitable pursuit to make an intensive study of the region.

The entire study falls into three parts:
The original contribution in the present thesis are:

1. The division of area under study into drainage basins and physical units; calculation and analysis of the mean monthly and mean annual variability of rainfall; the construction of rainfall dispersion diagrams and the preparation of soil map of the Central Gujarat Plain.

2. The study and interpretation of population and types of human settlements.

3. An exhaustive study of the landuse with particular emphasis on crop management by recording the actual distribution of crops on large scale maps.

4. Classification of village lands into various land types on the basis of their fertility and productivity.

5. An assessment of the per capita share in the different types of cultivated land.

6. The determination of crop regions of Central Gujarat by computing the unpublished statistics and a detailed analysis of each crop regions.

7. Detailed study of villages from each crop regions and the detailed study of the agricultural pattern of each village.

8. The determination of agricultural regions of Central Gujarat and their delineation on map on the basis of unpublished taluka-wise agricultural statistics and a detailed study of each region.

9. The detailed analysis with regard to accessibility in relation to Land Use.

10. A detailed analysis of community development on the basis of field work in the area.
Part I is the study of the physical environment of the area. It consists of five chapters: Chapter I discusses the distribution and characteristics of the various geological formations and the influence of the structure on relief and the consequent development on agriculture has also been assessed. Chapter II gives an account of the relief and drainage; Chapter III deals with Climate; Chapter IV is devoted to a study of distribution and character of soils and Chapter V deals with forests their distribution and significance to the cultivators of Central Gujarat.

Part II deals with population and settlements. Here the growth and occupational structure of population together with the size, location, growth and patterns of settlements have been studied.

Part III is the core of the whole study and is based entirely on field-studies conducted by the writer. It includes eight chapters on general landuse; agricultural methods and techniques; distribution of crops and crop regions; a study of the sample villages; livestock, transport and community development.

Finally the conclusion is based on the investigations that have been made. It discusses landuse efficiency, population and food supply, and the general state of agriculture in the present environ and socio-economic set-up. On the basis of these findings some suggestions have been given.