

## INTRODUCTION

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INTRODUCTION :

Agriculture is by far the largest single industry of the nation contributing more than 45 percent of the national <sup>gross</sup> income and is the main source of food for the vast and growing population as it provides the bulk of commodities. In spite of overwhelming importance in the economy the production of grains was not satisfactory until 1972 when country achieved self-sufficiency in most of the commodities. However, in the light of rapid growth of population the food production has to be increased to the larger extent. The accelerating growth of population and rapid development of agro-industries will demand larger quantity of agricultural produce.

In view of this, if future need is considered in terms of minimum requirements for additional population every year, the country would need a minimum of 3.7 million tonnes of cereals to feed the extra mouths being borne every year. Thus different ways have to be found to solve the food problem. The production of food may be increased by two methods : -

- i) by bringing more land under cultivation,
- ii) by increasing the yield per unit of cultivated area.

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The former aims at utilizing every acre of cultivable land while the later would lead to maximum utilisation of land.

In fact, inspite of the best efforts of the planners the production of foodgrains could not keep pace with the <sup>year 1965-75</sup> ~~increasing population.~~ The per hectare production is quite low as compared with the other countries of the world although the carrying capacity of the land is considerable and it can feed, it is estimated, five times of India's Population if it is coaxed well. All that needs to be done is to raise uniformly the food production efficiency of the land for which detailed study of land resources with its production capacity, is a must. It is in this spirit that the present study of agricultural efficiency of Sangli District is undertaken.

✓ 1. PURPOSE OF STUDY :

In view of the above facts, Sangli district has been selected in the present analysis which has agrarian base. The agriculture has been characterised by its low productivity. The regional disparities in the agricultural productivity is the salient feature which is influenced by the physico-socio economic set up. The main purpose of the study is to examine the regional variations in

91, agricultural efficiency and temporal variations from 1965 to 1980. The emphasis is on highlighting the basis of agriculture which influence agricultural efficiency. Thus, the major focus of attention is to examine the spatiotemporal spread of agricultural efficiency. In addition to this, agricultural framework consisting of Landuse, Cropping Pattern and regionalization has been attempted to present the overall picture of agriculture and exhibit spatial arrangement of cropping pattern which is closely related to natural and cultural environment. The region experiences the problems like high pressure of population, rural unemployment and low yield per hectare. An attempt is also made to examine the " Weaker Area " regarding the agricultural efficiency.

## 2. APPROCHES TO MEASURE AGRICULTURAL EFFICIENCY :

Agricultural efficiency is the level of existing performance of a unit of land which differentiate from one area to another ( Ali Mohammad, 1978 ). It is the reflection of combined effect of various factors like physical, socio-economic and organizational.

Many agricultural geographers have attempted to study the agricultural productivity. L.D. Stamp determined the agricultural productivity on global scale by selecting a number of countries and some major crops. The areal units were graded in ranking order according to their out-put

per unit of area and ranking co-efficients were derived. M. Shafi ( 1960 ) applied this technique in determining<sup>in</sup> the agricultural efficiency of Uttar Pradesh. Buck J.C. ( 1937 ), E. de. Varies ( 1967 ), Clark and Haswell ( 1967 ) measured the agricultural productivity in terms of grain equivalants per head of population. Sapre and Deshpande ( 1964 ) and Bhattia used weighted average outputs per unit. Majid Hussain ( 1979 ) measured agricultural productivity in terms of money value. Jasbir Singh, ( 1972 ) recently applied a technique known as ' The crop yield and concentration indices ranking co-efficient,' S.D. Shinde and Jadhav ( 1978 ) studied agricultural productivity of Maharashtra Plateau by employing M. Hussain's method.

### 3. THE STUDY REGION :

The present study deals with administrative unit of the Sangli district which is located in Southern Maharashtra. Hemmed between the parallels of 16° 45' and 17° 30' North and the meridians of 73° 42' and 75° 40' East; the district consists of eight Tahsils viz. Shirala, Walwa, Khanapur, Miraj, Kavathe-Mahankal, Jath, Tasgaon and Atpadi ( Fig. 1.1). The Maharashtra - Karnataka State boundry separates it from the Karnatak State in South-East, while its South-Western and Southern fringes<sup>e</sup> are washed by river Warna, a tributary of Krishna. The Western side is well

defined by the watershed of Western Ghat about 25 kms. The region is surrounded on the North by Satara district and on the North East by Sholapur district.

The region covers an area of 8563.57<sup>sq.</sup> kms. and in 1971 total population was 15,40,000 ( 12,50,000 rural and + 2,87,000 Urban ) covering 2.78% of total area of the state and about 3.05% of its population. There are 539 inhabited villages and four uninhabited villages and seven towns.

#### 4. SOURCES OF DATA AND METHODOLOGY :

In the present study two types of data were collected. i) Primary data is collected from the field work, interviews and sample surveys. ii) Secondary data is collected from socio-economic abstracts for the year of 1965 to 1980 published by Bureau of Economic and Statistics Govt. of Maharashtra.

The non-availability of yield per hectare at tahsil level of the crops grown has been overcome by employing sampling method. The yield per hectare of each crop was obtained from 110 villages ( 20 percent sampling ) out of 538 villages ( Fig. 5.1 ) in the region under study. The questionnaire were circulated to the revenue officers of the selected villages. Thus data obtained were processed by employing different techniques developed by geographers and

the analysis is presented in forth chapter. Besides, through frequent visits, intensive field work and personal interviews were carried out to obtain the data for three villages for case study.

5. ORGANISATION OF THE STUDY :

The present study is organised into six chapters. First chapter deals with the physical bases of agricultural efficiency whereas second chapter is concerned with the socio-economic bases of agricultural efficiency. Third chapter deals with the agricultural framework of the entire region. Agricultural efficiency is the subject matter of fourth chapter whereas fifth chapter deals with case study of three villages. The last chapter attempts to summerize the findings of the study.