
-: INTRODUCTION :-

IMPORTANCE OF IRRIGATION :

Importance of irrigation as an essential input hardly needs any emphasis. Moreover it is a prerequisite for the adoption of new technology in agriculture and for the rapid growth of agriculture sector. In the peninsular India where agriculture is a perpetual gamble with the monsoon irrigation acts as a protective and stabilising factor as well as productive input. Investment in irrigation leads to multiple benefits both at micro and micro levels. It enhances the income of land owners by providing them an assured source of income and help them to buildup capital gains.

The conversion of dry land into wet land provides a security against the vagaries of rainfall preventing crop failure and enabling higher yield per hectare. It also helps farmers to take two or more crops from the same field within a year and it increases the productivity of the land by transforming the agriculture. However the transformation partly or fully depends on the nature and mode of irrigation.

Irrigation is regarded as an integral part of a sound infra-structure and is one of the basic ingredients of agricultural activities. To be successful and well developed, agriculture requires supply of water of regular interval and in required quantities. This could be done by artificial application of water to land for growing crops and it is known by the term 'irrigation'. and the farming done by applying artificial water to various crops is known as 'irrigated farming'.

OBJECTIVES :

The present study attempts to analyse the spatio-temporal development of irrigation facilities and regional imbalances therein for the state of Maharashtra which is one of the agriculturally prosperous states of India. The attention is also focused on the sources of irrigation correlating them with physiography and climate of the region. An attempt is also made to find out how far irrigation facilities have influenced the agricultural productivity of the region.

Besides some problems of irrigated farming are also highlighted.

SOURCES OF DATA AND METHODOLOGY :

The triennial average for the year 1950-53 and 1980-83 have been abstracted in order to avoid the climatic hazards of different variables.

The main body of the data used in the study is based on secondary sources, published by the state and central government. It includes published and unpublished reports and abstracts, such as socio-economic review and district statistical abstracts, census handbooks, district gazetteers, agricultural bulletins, published by department of agriculture, report of superintending Engineer and Director of Irrigation Research and Development, Poona, irrigation monographs, unpublished documents by irrigation and the variability of rainfall is calculated by considering the previous 35 years rainfall data for all the raingauge stations in

the state. The agricultural productivity is calculated by the crop yield and concentration indices. Problems of irrigated farming are reviewed by description method.

THE DESIGN OF THE WORK :

The whole work is organised into six chapters. The first chapter deals with basis of irrigation facilities which includes physiography, climate, soil and agricultural implements of the region. The sources of irrigation are highlighted in the second chapter. Whereas the third chapter deals with the irrigated cropping pattern. The agricultural productivity is analysed in chapter four, the fifth chapter deals with the problems of irrigated farming. The last chapter attempts the conclusion of the study. The general references used are given at the end.