

CHAPTER - 6

CONCLUSIONS

CONCLUSION :

The foregoing analysis deals with the agricultural efficiency of Sangli district, an agriculturally developing region, in southern Maharashtra. The study of agricultural efficiency is essentially an important tool to understand the level of existing performance of the area ~~unit~~ which **varies** from one part to another. In view of the overwhelming pressure of population on the cultivated land and ~~em~~erging problems like food shortage, rural unemployment increasing demands, for agricultural production from agro-industries, rural-urban migration thereby creating housing, health, social problems in the urban areas, the agricultural resources need to be exploited to a greater extent. This may need to increase agricultural out-put per unit area and per unit of time by adopting improved techniques and increasing use of inputs in the agriculture.

The agricultural efficiency is an interplay of the magnitude of physical, social, economic and organisational attributes. The spatial variations in physical output from the soil are the result, partly of natural and environmental circumstances and partly of the combinations of human activities.

These factors more or less exert their influence on agricultural production. Besides, the agricultural

efficiency is a dynamic concept, as any modification in these bases of farming lead to both effect increases or decreases in agricultural efficiency. Notwithstanding the spatio-temporal characteristics of the level of agricultural output will certainly provide a rational base for future orientation in agricultural planning. The pattern of change, a valid index of agricultural development, may be used as an effective measure for delimiting the 'Areas'.

Moreover, the physical factors have controlled the cropping pattern and agricultural efficiency too. The western hilly region with its adequate rainfall but rugged topography has dominance of rice cultivation but relatively less intensity of irrigation. Consequently average efficiency of this zone is less than that of central tract. Contrasting to the above the eastern plateau region with undulating terrain has ever been drought prone area. In view of the poor soils, high frequency of draught conditions and high variability of rainfall, with its low efficiency, this part may be regarded as 'Weaker Zone' in the district. The central part of the region with its moderate rainfall, drained by the river krishna farming an extensive alluvial tract, is agriculturally developed region.

The socio-economic factors are also equally important to improve the agricultural efficiency. Irrigation

facilities are highly concentrated in the riverine tracts of Krishna Wara Yeṣala promoting cultivation of sugarcane as a cash crop. The intensity of irrigation (Average 118.25 percent) is, however, far from even causing regional disparities in the agricultural production within the confines of the region. The region under study has witnessed an upward trend of fertilizer consumption during the last two decades. The per hectare consumption is, however, less (5.68 kg. per hectare) than that of state and national averages. There are regional imbalances in the consumption of fertilizers. The consumption of fertilizer is satisfactory in irrigated areas and particularly in sugarcane areas. Owing to the lack of irrigation, the eastern zone has low consumption of fertilizers. Similarly, the consumption of farmyard manures is low in the region. Recently the use of improved implements has been increasing in the region particularly in the irrigated parts of the region. The number of electric pumps has increased from 91 (1965) to 13873 (1975) and the number of tractors increased from 22 in 1965 to 71 in 1975. The farmers in the eastern drought prone area cannot afford to use improved implements whereas the hilly relief has become the barrier to adopt such implements in the west. The central tahsils i.e. Miraj (West), Tasgaon (West and South) and Walwa with their improved irrigation facilities have substantial number of

improved implements.

The landuse pattern of the region is the reflection of the effects of varied physioo-socio-economic factors. The cultivated land occupies about 85 percent of geographical area indicating that there is hardly any scope for increasing land resources to any appreciable extent. Therefore intensity of agriculture has to be stepped up by adopting technological changes.

Cropping pattern of this area is typical of an underdeveloped economy. The foodgrains are dominant occupying larger portion (73.36%) of the cultivated land. Though agricultural practices are carried both in Kharif and Rabi season, there is a little difference between G.C.A. and N.S.A. change in cropping pattern may be brought about by providing irrigation facilities especially in the eastern drought prone areas of the region. For this development of minor irrigation schemes is necessary. This may help in bringing additional land under double cropping.

Intensity of cropping pattern differes from area to area. Tasgaon, Khanapur and Atpadi tahsils have high intensity of cropping in the region (More than 104). This is followed by Shirala and Kavathe-Mahankal tahsils (103 to 104). In Walwa tahsil the intensity of cropping is 102 to 103.

There are possibilities of expanding the area under double cropping because some irrigation projects like Atpadi, Nibavadi have been started recently. Many water percolating tanks are being completed. Lift irrigation projects were set up in the river basins during the last two decades. Agricultural efficiency is increasing as the cultivators are aware of new farming techniques and methods in the basin areas. The inputs are widely used in irrigated area to obtain more yields.

As compared to the state the district has moderate efficiency of agriculture. Generally two distinct zones can be identified on the basis of agricultural efficiency. First, the central zone which comprises the fertile basins of Krishna, Warna (and) Yerela has high efficiency of agriculture. This can be attributed to favourable environmental and cultural factors in the form of fertile deep alluvial soils, well developed network of lift irrigation, substantial application of fertilizers, use of improved techniques and implements, constructive role of sugar factories, healthy atmosphere created by co-operative sector and above all the farmers awareness to modern techniques. Thus, the combined effect of physico-socio-economic and organizational variables has been manifested in higher yields per unit of area. The tahsils of Walwa, western and southern parts Tasgaon and western part of Miraj tahsil have contributed towards increasing

efficiency. The adjacent tahsils of the above zone have moderate efficiency. This is partly due to favourable climatic conditions for the growth of certain crops. The moist climate during south-west monsoon, for example, in Shirala tahsil is favourable for rice cultivation whereas dry climate with moderate rainfall and well irrigation in Khanapur and Kavathe Mahankal have facilitated the cultivation of Jowar, Groundnut and Bajara. Secondly, the eastern-most part of the region is affected by drought conditions which have led to lower yields. The poor soils, undulating topography, lack of water for irrigation and high variability of rainfall (over 30 percent) have limited the use of inputs. This zone is, therefore, regarded as 'Weaker' part of the region as far as agricultural efficiency is concerned.

From the foregoing analysis, it may, therefore, be concluded that environmental and cultural setting controls the spatial distribution of agricultural efficiency. The region, however, offers considerable scope for the improvement in the yields per unit of area.