



ANALYTICAL STUDY OF CROPPING PATTERN AT KARMALA IN SOLAPUR DISTRICT

Uttam Chandrabhan Vitukade¹ & Bhushan Sopan Samgir²

¹Yashwantrao Chavan Mahavidyalaya, Karmala.

²Vidya Pratishthan'n Supe Arts, Science and Commerce College, Supe.



Abstract :

Agriculture is an important sector of Indian economy as it contributes about 17% to the total GDP and provides employment to over 60% of the population. Cropping pattern and change in area under different crops analyzed in Karmala tahasil in 2010 and 2020. There are various factors are affecting to change in area under different crops such as rainfall distribution and variability, soil type, social behavior of farmer, and demand in the market. India is predominantly an agricultural country. Indian agriculture has registered impressive growth over last few decades. Now a days improve agricultural productivity is most important. Cropping pattern are the first and most important point for improving productivity and efficiency. Quality inputs (improved seeds and fertilizers) are essential to raising productivity (yields per unit area planted) under both the rainfed and irrigated conditions. Availability of new agricultural inputs, such as high yielding variety of seeds, chemical fertilizers, pesticides, mechanical inputs, irrigation etc. have brought about changes in cropping pattern. Consequently farmers are encouraged to bring more land under high value crops, in order to maximize the output.

Key Words: Cropping Pattern, productivity, Karmala tahsil.

Introduction:

Study Region

Karmala Taluka is one of the 11 talukas of Solapur district. Karmala is located at 18°25'12"N 75°12'0"E. an average elevation of 562 metres About 19 km. to the north of the Jeur railway station. It is bounded at north and north-west by Ahmadnagar district. West and South-West boundry emerged by Bhima river. North-east and south-east boundry bounded by Paranda and Madha tahasil Osmanabad and Solapur distric in respectively. Only-one boundry attach to Madha ahasil of solapur district. As of the 2011 census, Karmala taluka had a total population of 254489 people, in Solapur district. Karmala taluka is biggest covering an area of 1609.7 sq.kms. consists of 118 villages. It's population density has 145 persons per square kilometer. Karmala tahsil is typically monsoon. The annual average rainfall of Karmala tahsil is about 544mm.

Land Use Pattern in agricultural Area – 11480 sq.kms. Cultivable not in use – 380 sq.kms. Non-agricultural – 690 sq.kms. Grass Lands and Herbs – 720 sq.kms. Forest Cover – 350 sq.kms. Wastelands – 1260 sq.kms. Draught prone areas (All eleven talukas) – 14844.6 sq.kms. Agroclimatically entire district comes under rain shadow area. Rainfall is uncertain and scanty. The monsoon period is from June to September bringing rains from south-west monsoon. Farmers use various inputs in their farm.

Due to Ujani Dam irrigation project on Bhima river about 2.50 lakh hector land is brought under irrigation in Solapur district. Karmala tashil are developed on agriculture because of use modern agricultural technology.

Objective:-

Specially the present work incorporate the following objective...

1. To study the geographical set-up of Karmala Tashil of Solapur district as a basic for investigation.
2. To analyse spatio- temporal changes in Cropping pattern.
3. To access the socio-economic impact of Cropping pattern.

Hypothesis:-

In light of the above objectives, following hypothesis are formulated.

1. Physical factor have a vital role in expansion on agricultural productivity in these region.
2. Cropping pattern is directly related to agricultural productivity in the study region.
3. Important role of Cropping pattern in development of the agricultural region.
4. Changing Cropping pattern has an impact on socio-economic development of the region.

Analytical study of Cropping pattern

The growing population has been increased the demand for food. The demand for food grains is going on increasing and land cultivation decreasing. cropping pattern is an important component of food security. Therefore use of modern agriculture inputs most necessary. Development of agriculture technology to maximize food productivity to carrying to growing demand of increasing population in. It is imperative on the latest technologies to maximize agricultural yield. In this research work role of cropping pattern in increasing agricultural yield. Moreover irrigation system, agricultural implement, seed, fertilizer and pesticides, green house system. The peoples view towards socio-economic impact of agricultural productivity in Karmala tahsil has been studied and analysed. Also the view of people towards the socio-economic impact has been collected.

Karmala tahashil is drought prone area because of rainshadow area. According to topography the district is divided in three natural zones. One of the eastern zone this is dry area. The soil is medium to deep black. Jawar, Bajra and Pulses are the main crops of this zone. Second Zoneare Central or transitional zone. Like to moderate and poor type of soil and uncertain rainfall. Third is western zone comprises South-western parts of Karmala tahashil. comes under this zone soil is medium to deep black and of rich quality.

Kharip and Rabbi crops are grown in this all part. Rabbi crops mainly grown in Karmala Talukas while Kharip crops like Bajra and Groundnut are grown in

Cropping Season in Karmala tahashil

S. No	Cropping Season	Crops
1.	Rabi	Wheat, barley, peas, gram, mustard etc.
2.	Kharif	Rice, maize, jowar, bajra, tur, moong, urad, cotton, jute, groundnut, soybean etc.

Cultivation of Crops in % in Karmala tahashil

Sr. No.	Crop	Cultivation of Crops in %
1	Jawar	21
2	Bajara	6
3	Maize	12
4	Sugarcane	28
5	Cotton	11
6	Horticulture crop	10
7	Pulse	10
8	Other	2

Choice of The Region :-**The following facts had motivate to study of cropping Pattern in Karmala tahashil.**

1. Ujjani irrigation project on Bhima river (in Madha tahsil) on main source in the development of agriculture in Karmala tashil.
2. Sina Kolegoan irrigation project on Sina river (in Paranda tashil) second main source in the development of agriculture in these region.
3. Improved irrigation facilities leads towards changes in cropping pattern and development of sugar industry which finally leads towards use of modern agricultural technology in this region.

Data Collection And Research Methodology :-

The research study depends mainly on primary data collection though the sample survey. Primary data has been collected with the help of a questionnaire's, by Door to door house hold survey will be carried out. For the collection of large data , Mean method will be used.

The available secondary information from various government agencies, and Census of India, district gazetteers

Review Of Literature:-

some experts and discipline have already selected the themes of Agriculture Croppig pattern in his Ph. D and M. Phil topic of various region, there are the review of literature as following mentioned. G. Kendall (1939) used ranking co-efficient of principal crop unit of area in analysing and estimating the agricultural productivity. There are few geographical investigation on agricultural sector and agricultural Cropping pattern. Moreover, the geographer have not paid attention to Analytical study of Cropping pattern at Karmala in Solapur District.

Therefore the present work is, undertaken by the author to understand the input-output ration in agricultural sector.

Conclusion

Thus we can conclude that *economic factors play a major role in the determination of the cropping pattern in Karmala agriculture.* In Karmala tahashil the cropping pattern is determined by rainfall, climate, temperature, soil type, technology and socio-economic conditions of the farmers. These changes in the cropping pattern mainly occurred due to increase in the prices of crops.