Chapter I

INTRODUCTION

Free market economy is always favourable to organised sector. Comparatively industrial sector is more organised and the benefits of free market economy are appropriated by this sector. But in developing countries like India agricultural sector is unorganised where prices of agricultural products are uncertain, irrational and unstable. The price level of agricultural products relative to prices of other sectors also influence the allocation of factors of production to agriculture and hence production pattern in agricultural sector. So the study of price behaviour of agricultural products is most essential to have a positive agricultural price policy.

The development of national economy is based on the development of agricultural sector which is a basic sector of the economy. The development of agriculture depends on several factors such as high
yielding varieties fertilizer, irrigation, improved farm implements, farm prices, etc. of which prices of agricultural products is an important factor. But the major grievance of agricultural producers is arbitrary variations in agricultural prices and mainly in foodgrain prices. The farmers are compelled to sell their products at low prices during the period of harvest months to meet their urgent money requirements. So they do not get rational prices. Some times they purchase necessary agricultural commodities at higher prices for the purpose of home consumption during the slack season, which they had sold at lower prices during the harvest period. There are number of reasons which give rise to price variations of agricultural products among which seasonal supply of agricultural products is an important one. Agricultural products and mainly foodgrains are produced in a specific season of a year but they are consumed throughout the year. It results into irregular variations in agricultural prices.

Seasonal variations in agricultural prices have various adverse effects on the economy. For example, allocation of resources, pattern of income distribution, capital formation, cropping pattern, term
of trade, agricultural policy, standard of living, etc. are affected by the variations in agricultural prices. Further, seasonal variations in agricultural prices also affect adversely the development of agro-based industries and the interests of producers and consumers. In this view, it is important and necessary to study the behaviour of agricultural prices. Uptill now, no such study has been done for any district of the Marathwada Region. This reveals the need of conducting a study relating to behaviour of agricultural prices. So the present study is undertaken and confined to Nanded district and covers the eight main crops of this district, namely, wheat, jowar, paddy, gram, tur, groundnut, chillies and gur.

Objectives of the study:

The following are the main objectives of the present study:

1. To study the price trend of selected agricultural commodities in Nanded district.

2. To study the seasonal variations in the prices of selected agricultural commodities in Nanded district.
3. To study the behaviour of prices and arrivals of selected agricultural commodities in Nanded district.

4. To study the influence of change in prices on area under selected crops in Nanded district.

Research methodology:

There are thirteen regulated marketing centres in Nanded district. In this study we have covered ten regulated marketing centres which are established at Nanded, Loha, Naigaon, Dharmabad, Degloor, Bhokar, Mukhed, Kundalwadi, Umri and Mudkhed. The three marketing centres, namely, Kinwat, Hadgaon and Kandhar are excluded from this study. Kinwat marketing centre is excluded because the whole Kinwat taluka is declared as an adivasi area. Prior to 1981-82 agricultural market was open in Kinwat taluka. But since 1981-82 Maharashtra State Co-operative Tribal Development Corporation Ltd. enters in agricultural market. It purchases all the agricultural products directly from the cultivators at determined prices. It means
agricultural market in Kinwat taluka is regulated by the Tribal Development Corporation where the possibility of erratic price variations is limited. Hadgaon marketing centre is not considered as it is a cotton endowment market. Cotton shares about 95 per cent of total market arrivals of all commodities in this market. The arrivals of selected agricultural commodities in this market are very small. A separate regulated market is established at Kandhar recently (i.e. 1983-84). So the time series data is not available for a long period. Due to these reasons the three marketing centres mentioned above are excluded from the present study. Among the selected ten marketing centres Nanded marketing centre is a big and secondary wholesale market. All other markets are small primary markets, in nature.

This study covers the period of twenty years from 1968 to 1987 in case of six selected commodities, namely, wheat, gram, tur, groundnut, chillies and gur. But in case of jowar and paddy the period covered is from 1974 to 1987, because there is lack of data regarding arrivals of these commodities at most of the marketing centres.
The present study is based on secondary data. The time series data regarding monthly arrivals and prices of selected agricultural commodities are collected from the records of the agricultural produce market committees in Nanded district. The data regarding area under selected crops are collected from different issues of District Statistical Abstract of Nanded district, from office of the District Inspector of Land Records, Nanded and from Tehsil offices.

In order to study the objectives of the present study different statistical tools have been used for analysing the data. For studying the nature of price trend the linear regression equation given below is fitted to price data.

\[ Y = a + bX \]

Where  \( Y \) = Average price per quintal (in rupees)  
\( a \) = Intercept  
\( b \) = Rate of change in price per year  
\( X \) = Time (in years)

To study the variations in the prices over the period under consideration, between the selected commodities and between the markets, co-efficients of variation are worked out.
The co-efficients of correlation between arrivals and prices of products are worked out in order to study the relationship between them and co-efficients of variation are worked out to study the degree of variation in arrivals as well as in prices.

The study intends to examine the effects of change in prices on acreage under different selected crops. For this purpose, co-efficients of correlation and co-efficients of variation are worked out. Further, least-squares method is also adopted to study the trends in prices and in area under crops.

**Selected Crops:**

In the present study eight agricultural commodities are selected for studying the behaviour of their prices. The selected agricultural commodities are jowar, paddy, wheat, gram, tur, groundnut, chillies and gur. At this place it is essential to know some general information regarding these selected commodities. This would be useful in understanding of the problems of prices and marketing of these commodities.
Kharif jowar:

Jowar is cultivated in kharif as well as in rabi seasons in Nanded district. But the rabi jowar crop is sown on a limited area and mostly in Biloli, Degloor and Mukhed talukas of this district. So in this study only kharif jowar is considered.

Among the foodgrains cultivated in Nanded district kharif jowar is a most important crop in terms of area and production. It is cultivated in almost all the talukas of Nanded district. It is sown in the month of mid-June with the beginning rainy season and harvested in October - November all over the district. The crop kharif jowar is taken on about 2.5 lakh hectares of land which forms 32 per cent of gross cropped area in the district. Further, kharif jowar covers 67 per cent of total area under cereals in the district. A number of improved varieties of this crop are sown in different parts of the district to have higher yields. Kharif jowar is subsistence crop and is a part of daily food of people in Nanded district. So a large portion of kharif jowar production is held by the farmers for home consumption. It means marketed surplus of Kharif jowar is limited.
Paddy:

Paddy is also a kharif crop of this district. This crop requires rainfall of more than 40 inches per annum. Paddy is sown on 33 thousand hectares of land which is 4.4 per cent of total gross cropped area and 9 per cent of total area under cereals in the district. Paddy is also a subsistence crop and hence farmers keep a larger quantity of this crop for home consumption. In this district, cropping period of paddy begins in June and ends in October-November. This crop is produced on irrigated lands in Nanded and Biloli talukas.

Wheat:

This is also a subsistence cereal crop produced in rabi season in different parts of this district. This is also cultivated in irrigated area where irrigation facilities are available. In Nanded district the area under wheat crop is near about 34 thousand hectares, that is, 4.5 per cent of total gross cropped area and 9 per cent of total cropped area under cereals in the district. Wheat is sown in the month of
November-December and harvested in the month of March. Recently several varieties of wheat are cultivated in the district. The bulk of production is retained by the producers to meet their own consumption needs. The above three selected cereal crops are the main foodgrain crops as they cover 65 per cent of total foodgrain area in the district.

**Gram:**

Gram is a pulse crop. It is produced in rabi season and is a competitive crop of wheat. The normal cropping period of gram is from November-December to February-March. More or less, it is cultivated in all the parts of this district. Gram crop requires low to moderate rainfall, mild cold weather and black cotton soil. Excessive rain, severe cold, and frosts are injurious to this crop. About 15 thousand hectares of area is under gram in the district, which is 2 per cent of gross cropped area and 14 per cent of total area under pulse crops of Nanded district.

**Tur:**

Tur is also another important pulse crop of this district. About 40 thousand hectares of land is under this crop in this district which forms 5 per cent
of total gross cropped area and 34 per cent of total cropped area under pulses. This crop is cultivated all over the district during kharif season.

Tur is most important pulse crop from the point of view of cultivators. Because it gives them some money income to meet their financial requirements to some extent.

Tur and gram together cover 50 per cent of total area under pulses and 11 per cent of total area under foodgrains in the district. The selected five foodgrain crops are the main foodgrains in the Nanded district and cover 76 per cent of total area under foodgrains.

Groundnut:

Groundnut is an important oilseed crop of this district. Approximately 48 per cent of total oilseed cropped area of the district means 2.7 per cent of gross cropped area is under this crop. It is mainly a kharif crop cultivated all over the district. In Nanded and Biloli talukas groundnut is cultivated on irrigated lands. This crop is a cash crop and helps the farmers to meet their financial needs.
**Chillies:**

Farmers get money income from this cash crop. This crop is taken in rabi season, that is, cultivated during the period from August-September to December-January. Near about 11 thousand hectares of land is under chillies in Nanded district, which forms 1.5 per cent of gross cropped area in the district. About one-half of the total area under chillies is concentrated in Biloli taluka alone, followed by Degloor taluka (i.e. 15 per cent). In Biloli and Nanded talukas chillies is cultivated on irrigated lands.

**Sugarcane:**

Sugarcane is a purely irrigated crop. So the area under this crop mostly depends on perennial irrigation facilities. It is an important cash crop. Approximately 6 thousand hectares of land is under sugarcane crop in the district which forms 14 per cent of gross irrigated area and 0.75 per cent of gross cropped area of this district. Out of total area under sugarcane 75 per cent area is concentrated in Nanded, Kandhar and Biloli talukas. There are two sugar
factories in co-operative sector in Nanded district, one at Kalamber in Kandhar taluka and another at Shankarnagar in Biloli taluka. The cultivators sell maximum quantity of sugarcane to these sugar factories. So the minimum part of sugarcane production is processed in the form of gur.

Scheme of Chapters:

The thesis consists of eight chapters. The essence of the present study is explained in the first chapter. The objectives of the study, methodology adopted to study them and scheme of chapters are also given in this introductory chapter.

The second chapter is devoted to explain the importance of agricultural prices in a developing economy like India. It discusses the market mechanism of agricultural products, special features of agriculture, importance of agricultural prices, nature of price problem, types of price variations, reasons and effects of price variations and need of price stabilisation.

The third chapter deals with the agricultural economy of the Nanded district. Especially, it throws light on soil, rainfall, population, irrigation, crop-
pattern, farm implements and machinery, and the other infrastructural facilities. The study of these aspects clearly indicates the nature of agricultural economy of the Nanded district. The taluka-wise discussion of all these above said aspects is made by collecting data for different points in time.

The fourth chapter is devoted to review the literature on the issues considered in the present study. In the present study, it is aimed at to study the trend and seasonal variations in prices of some foodgrains and cash crops. The relationship between arrivals and prices is studied. Further, the impact of price changes on area under crops is also studied. So the related important research works done so far and the findings drawn in them have been reviewed in this chapter.

The fifth chapter discusses the trend and seasonal variations in prices of selected agricultural commodities in Nanded district. All the selected eight crops are considered in this chapter. After analysing the data, by using different statistical tools, some important findings are drawn. It is found that the prices of all selected agricultural commodities have
shown a rising trend in all the markets over the period under study. However, the rate of increase in the prices differed from market to market and from commodity to commodity. Over the period under consideration, the lowest rate of increase in prices is found for jowar and the highest rate of increase in prices for chillies. The price trend has been higher for cash crops followed by pulse and then cereal crops. As far as annual or year-to-year price variations is concerned, it is found that these variations have differed from market to market and from commodity to commodity in Nanded district. The three markets, namely, Nanded, Loha, and Dharmabad are found to be comparatively more stable. The variation in prices are found to be lower in case of cereal crops followed by pulse and cash crops. In the present study it is found that there is seasonality in prices of all selected agricultural commodities and variations have occurred from month to month within a year. These seasonal variations have also varied from market to market and from commodity to commodity. Seasonal price variations are found to be the lowest for paddy and the highest for groundnut. In case of all agricultural commodities it is found that the level of retail prices is higher than the level of their wholesale prices.
The sixth chapter deals with the relationship between variations in arrivals and prices of selected agricultural commodities in ten regulated markets in Nanded district. It is found that the year-to-year variations in arrivals are higher than the corresponding variations in prices. This kind of picture is observed in case of all selected agricultural commodities in all markets, over the period under consideration. The variations in arrivals of jowar are found to be four-times higher than the variations in its prices while the variations in arrivals of gur are higher by one and half times than the variations in its prices. A negative relationship between arrivals and prices is found for all selected agricultural commodities and that too in all markets in the district. Pattern of market arrivals is found to have unevenly distributed within a year in the different markets of Nanded district. On an average, the percentage of market arrivals sold in four months of harvest season is found to be in the range of 42 per cent to 80 per cent for the selected commodities. Only 10 per cent to 20 per cent market arrivals are sold in the lean period.
The seventh chapter deals with the impact of price movements on area under different crops in Nanded district. Over the period under study, the variations are found in the acreage under the selected crops in Nanded district. But the degree of variations in acreage is found to be different for different crops. The study found that there is a negative response of area under a particular crop to change in its price. This result is found for all selected agricultural commodities with the exception of jowar and sugarcane crops. It means that an increase in price of a crop would lead to the decrease in area under that crop. The negative response of area to price changes is found for wheat, paddy, tur and gram crops in Nanded district. A positive relation is found for jowar and sugarcane crops, however, it is not significant. A negative response of relative area under a crop to its relative price is found for all the crops selected.

The eighth and the final chapter summarises the findings of the present study and suggests suitable policy measures, based on the findings, to improve the efficiency of agricultural marketing in the district.