ABSTRACT

Role of Periodic Markets in the Transaction of Agricultural Commodities in Shahjahanpur District

Agriculture is a way of life, a tradition, which, for centuries, has shaped the thought, the outlook, the culture and the economic life of the people of India. Agriculture, therefore, is continued to be central to all strategies for planned socio-economic development of the country. Rapid growth of agriculture is essential not only to achieve self-reliance at national level but also for household food security and to bring about equity in distribution of income and wealth resulting in rapid reduction in poverty levels. Indian agriculture has made rapid strides and the annual food grains production which has increased from 51 million tonnes in early fifties to 206 million tonnes at the turn of the century. It has contributed significantly in achieving self-sufficiency in food. Despite reaching new horizons of development in several spheres, agriculture sector is still far behind as compared to the country’s other sectors so far as improving the condition of farmers is concerned. Various strategies have been formulated from time to time to improve the lot of farmers, but the economic condition of small and marginal farmers is still very bad, despite a higher economic growth rate. It is because of fact that the serious efforts could not made to ensure a remunerative return to farmers at grass roots level for their produce. As a result, the lot of general farmers continues to deteriorate day by day and they have been forced to commit suicide.

Since, the farmers are unable to get a higher remunerative return of their produce, it has become necessary that a proper arrangement of marketing network of their produce is made, in order to enable to the farmers to improve their condition.

Periodic markets are an integral part of the marketing network, and free from the complexities of various rules and laws such as in regulated markets. Here, the farmers are able to get a higher remunerative return of their produce. It stimulates production and consumption, thereby accelerating the pace of economic development in agricultural sector.
Periodic markets are important features of economic space in the world, especially in the countries of developing economy. As far as the term periodic market is concerned, it is a type of market based on temporal character. The term periodic reveals the happening of any event at regular intervals. Hence, periodic markets may be defined as the place where traders and consumers meet at particular interval of time on a specific day or days of the week, fortnight, in a month, and so on.

The review of the past works attempted in marketing geography both at national and international level were mostly concerned with the analysis and discussion of market structure, factors morphology and market participants, both in the rural and urban market centres. The mechanism and system of agricultural products at grass roots level in periodic markets were studied casually. Such themes deserve a proper attention for the development of an integrated agricultural marketing system which is well knitted from villages to international markets. A number of useful studies have been made to analyse and evaluate the different aspects of market centres, especially of rural markets but little attention has been paid to examine the relation between periodic markets and agricultural transaction, which affects the socio-economic life of the population at the bottom level.

In the view of importance of periodic markets in agricultural sector at grass roots level in the semi-subsistence type of economy, a micro geographical unit Shahjahanpur district has been selected as a study area. It is situated in the tract between the Ganga and foothills of the Himalayas in Uttar Pradesh, has five natural divisions, i.e., the Tarai forest belt, the Gomati basin, the Central banger land, the Ramganga khadar and the Bankati. The major section of population of the district is engaged in agricultural activities. The rural population is more or less dependent on periodic markets for selling and purchasing of agricultural and non-agricultural commodities, especially perishable goods and livestock. These markets also provide employment to workers of unorganized sector and source of livelihood for itinerant traders, who purchase the agricultural commodities from different places to sell in periodic markets.
The district of Shahjahanpur covers an area of 4575 sq. km and a population of 25.49 lakh. There are four tahsils (subdivisions), 14 community development blocks, 11 urban centres, 2425 revenue villages, and 170 periodic markets. The per capita land availability is 0.18 hectare and average agricultural productivity is 27.65 quintals per hectare.

Objectives of the Study

Taking into consideration the significance of periodic markets in socio-economic life of the people in Shahjahanpur district, the work has been undertaken with the following objectives-

1. To understand spatio-temporal distribution of periodic markets
2. To analyse and classify periodic markets
3. To examine transaction of different commodities in periodic markets
4. To assess the role of periodic markets in the transaction of crops and livestock
5. To evaluate marketwise socio-economic condition of the participants

Hypotheses

In the present study following hypotheses have been tested.

(i) Periodic markets are unevenly distributed on the space.
(ii) Periodic markets are the main centres for vegetable transaction.
(iii) The proportion of transacted food grains is low in periodic markets
(iv) Periodic markets are the major source for the transaction of livestock.
(v) Periodic markets are the meeting places for marginal and small farmers as well as workers of unorganized sector to transact agricultural commodities.

Data and Methodology

The study is based on the primary as well as secondary sources of data. The secondary data were collected from District Statistical Magazine, District Development Magazine, Census Office, New Delhi, Zila Panchayat Office, Shahjahanpur, District Food & Marketing Office, Shahjahanpur, District Agricultural Marketing Office, Shahjahanpur and District Agricultural Authorities, Shahjahanpur.
The primary data were collected from three comprehensive field surveys through direct questionnaire method in the months of July-August, November-December, and April-May, 2005-06. Out of 170 periodic markets, 34 were selected by using stratified random sampling technique for detailed information regarding the transaction of crops while 14 markets, one from each block for the transaction of livestock. On the basis of stratified random sampling, 50 per cent commodity wise traders of each periodic market were interviewed for detailed information regarding physical and socio-economic conditions that affect the transaction, marketing channels, and prices of agricultural commodities.

The collected data were processed in tabular form and to derive specific conclusion. The different statistical techniques used in the analysis include the nearest neighbour analysis, Doi's crop combination, rank, composite functional index, simple mean and simple percentage methods.

Various statistical and geographical techniques, using GIS technique, have been used to analyse and represent the data through choropleth and isopleth maps, ogive and frequency curves as well as bar and pie diagrams.

Chapter Scheme

The present study has been divided into five chapters

Chapter I introduces the meaning, significance and scope of periodic markets, includes a review of literature, statement of the problem, objectives of the study, hypotheses, data and methodology, and chapter plan. Chapter II examines the geographical background of the area and gives a detailed description of physical and socio-economic environments of the district. Chapter III deals with the distribution and analysis of periodic markets in Shahjahanpur district with their origin and development, spatio-temporal distribution and the classification, consumers, and traders' behaviour, hierarchy and trade area. Chapter IV describes role of periodic markets in the transaction of crops that includes analysis of the transaction of agricultural commodities through different agencies. It gives detailed marketwise description of marketable crops and information about sellers engaged
in their transaction. The price structure, marketing channels and some methods of transaction in the periodic markets has also been discussed. Chapter V deals with the description of livestock transaction through the periodic markets. The detailed marketwise analysis regarding transaction of various species of livestock and use wise livestock have been undertaken. It also examines about the traders engaged in trading of livestock, the price structure, and marketing channels. In the last, the conclusion summarizes the main findings of the study gives suggestions for improvement of agricultural marketing system in periodic markets in Shahjahanpur district.

Findings

The present study analyses the geographical conditions of study area as well as the distribution of periodic markets and their role in the transaction of agricultural commodities. It has been found that the study region is diversified in physio-socio-cultural and economic attributes. The study reveals that the periodic markets have been unevenly distributed in time and space due to physio-cultural diversity of the study area. The analysis highlights the evolution and hierarchy of the market depending on a cumulative effect of physical and cultural environments. The origin and development of periodic markets are based on the orthodox and alternative theories of market origin. The old markets generally situated in the interior areas of the district, originated on account of local needs and specific importance of particular place or settlement while the other periodic markets at nodal points emerged as a result of increasing length of metalled roads.

The distribution of periodic markets is not homogeneous. The Nearest Neighbour Analysis method has proved that the periodic markets in almost every block are randomly distributed on the space. The ratio of periodic markets with population, net sown area, inhabited villages, and served area per periodic market also vary in different blocks of the district.
Similarly, periodic markets are not uniform in temporal distribution. Their temporally uneven distribution reflects the economic status of the area, nature, and size of demand as well as traditional, religious and cultural aspects.

The total number of market frequency is 301, which is spread all over the seven days of week. The frequency varies on different days in different blocks of the study area where the majority of periodic markets are bi-weekly. Wednesday and Saturday are the most preferred days because the duration of the two days has sufficient time, and economic compulsion forces for meeting the markets on these days. However, in the study area the religious and cultural influenced days are Friday and Tuesday that have least effects on the meeting days of the periodic markets.

The different types of periodic markets have been classified on the basis of location, size, transacted commodities, estimated attendance and tributary area. On the basis of Doi's crop combination method nine specialized categories of periodic markets, i.e., (1) livestock markets (2) livestock-vegetables markets (3) livestock-food grains markets (4) livestock-vegetables-food grains markets (5) vegetables markets (6) vegetables-food grains markets (7) vegetables-food grains-grocery markets (8) vegetables-food grains-other miscellaneous goods markets (9) vegetables-food grains-other miscellaneous goods-grocery markets, have been recognized.

The hierarchy of periodic markets is rather a grading of markets unlike the urban centres (service centres). The urban centres have vertical integration while the periodic markets have horizontal integration. The periodic markets have similar functions but vary in size and volume. Thus, four grades of hierarchy, i.e., regional, sub-regional, block-level and local periodic markets have been identified on the basis of Composite Functional Index (CFI).

The behaviour of consumers and traders in periodic markets are controlled by various factors like topography, climate, purchasing power, demand, and supply, centrality of markets, accessibility, cultural, religion, and psychology. Moreover,
nature of goods transacted in the periodic markets is also an important determinant of consumers and traders’ behaviour.

The distance travelled by consumers for visiting periodic markets, varies for different markets in the district. Long distance journey is made for high order market centres with different objectives. A considerable variation in travelled distance by traders is recognized. The full-time traders and producer-cum-traders travel longer distance in comparison to producer sellers and artisan because their trade is a fully fledged occupation. It is fact that their travelling pattern and travelling distance are affected by economic factors. That is why full time traders travel maximum distance in a week to get maximum profit and visit different markets in a week unless the cumulative sale exceeds their threshold level. Buying traders, in regard of low order goods, travel rather small distance and move to relatively lesser number of periodic markets for collecting commodities from the villages, urban centres, and regulated markets to sell in these markets. However, in case of high order goods such as livestock, buying traders travel comparatively long distance to collect livestock from villages and other periodic markets to trade them.

The study reveals that tributary area of the periodic markets is rather circular form than hexagonal in the study area because the tributary area of a periodic market is served by another periodic market on the other day. Thus the concept of unserved area or overlapping area, which emerges from the circular trade area of market centres, does not apply in this regard.

The importance of periodic markets in transaction of agricultural surplus may be understood keeping in the view the extent to which they are involved in direct marketing of different commodities. This system provides maximum profit for both consumers and producers by reducing intermediaries share to consumer price at grass roots level.
It has been found through the analysis of the data that a wide range of commodities is transacted in the periodic markets. It includes agricultural and non-agricultural commodities such as vegetables, food grains, pulses, oilseeds, livestock, salt, spices, kerosene oil, soap, cosmetic, mill made cloth, readymade garments, insecticides, pesticides, and fertilizers. It is quite obvious from the field survey that periodic markets in Shahjahanpur district are of agricultural nature.

However, the volume of agricultural marketable surplus transacted is not much important in these markets. It is lesser when compared to other marketing agencies, i.e., regulated markets, and private agencies. The field data reveals that estimated annual transaction of vegetables in the periodic markets is 41640 tonnes. It is followed by wheat 9655 tonnes, paddy 6915 tonnes, pulses 1460 tonnes, oilseeds 3510 tonnes and fruits 3370 tonnes. The transaction of food grains in these markets is lower in comparison to perishable commodities such as vegetables. It is due to fact that small food grain marketable surplus is carried by the marginal and small farmers to dispose off, when they are in immediate need of money. Indebtedness of these farmers generally compels them to sell their surplus to the traders who loaned money during pre-harvest period. However, the big surplus is carried by big and medium farmers to sell their surplus in regulated markets and other agencies. On an average the proportion of market surplus as food grains is 14.51 per cent for wheat, 10.27 per cent for paddy, and 2.01 per cent for pulses to the total crop transaction.

The transaction of vegetables is on the top rank with 62.19 per cent to total crop transaction in the selected periodic markets. It proves that periodic markets are the main trading centres for vegetables. It is because of the perishable nature of the commodities and the backward nature of study area in context of storing, freezing, and transportation facilities at grass roots level. Hence, the periodic markets are the only options for marginal and small holders to dispose off their vegetables at remunerative prices. That is why in more than 50 per cent of the selected markets, the transaction of vegetables is above the
average (62.57 per cent). However, lack of truck farming in rural areas, vegetables are supplied for periodic markets from the city side.

Wheat is on second position in total crop transaction of selected periodic markets with average 14.51 per cent. During glut season, small share of wheat marketable surplus is transacted in periodic markets for getting immediate cash while the big surplus of same crop is carried to sell in regulated markets. However, the proportion of transacted wheat, owing to market location, physical, social, and agro-economic factors, varies from 0.47 per cent to 27.67 per cent in the different periodic markets.

Paddy occupies third place to total crop transaction (10.57 per cent) in the selected periodic markets. It is transacted higher than that of average in sub-regional, block level and small periodic markets. It is because rice is the main diet of population and raw material for cottage industries in the study region. However, due to small net sown area and low production, the average share of transacted pulses is 2.01 per cent, which varies from 0.6 per cent to 4.95 per cent in different periodic markets. The transaction of oilseeds accounts for average 5.27 per cent. It is higher than average among the 15 markets. It is because that they are produced by mainly marginal and small farmers. These markets are easily accessible for disposing off their oilseeds.

The sellers involved in transaction of different crops, are vegetable sellers (29.94 per cent), followed by wheat sellers (21.72 per cent), paddy sellers (16.12 per cent), oilseed sellers (15.75 per cent), pulses sellers (6.32 per cent) and fruit sellers (9.64 per cent). Lucrative price and quick payment, accessibility, hospitality, satisfaction for the sellers, as well as availability of other commodities of general and agricultural uses, pull a bulk of sellers in these markets.

Periodic markets serve at local level where the average highest share of vegetable sellers is 29.94 per cent. These periodic markets are held mainly for the marketing of fresh vegetables. The proportion of different kinds of vegetable sellers such as producer sellers, village sellers and urban sellers is 26.78 per cent, 32.99 per cent, and 40.99 per cent.
The vegetable sellers belonging to urban area are in majority (40.99 per cent) in the periodic markets. It is because that mostly vegetables are cultivated in the nearest concentric zone of town/city; sellers carry vegetables from there as well as different parts of the district and adjacent regions to sell in these markets. Unemployment and underemployment are main push factors in the urban areas that force urban residents to trade vegetables for earning the livelihood as well as supplement to their meagre income.

The average share of wheat sellers is 21.72 per cent to total crop sellers in periodic markets. It is the second higher frequency among the crop sellers, is largely due to the presence of considerable number of producer sellers, who fulfil their immediate need by selling their products. Their share is 50.43 per cent for producer sellers, 34.96 per cent for village sellers, and 14.61 per cent for urban sellers of the total wheat sellers exists in the periodic markets. The highest share of producer sellers reflects the higher participation of small, marginal, and landless farmers who are dominance in the study area.

The paddy sellers are accounted for 16.12 per cent in the periodic markets. Due to uneven production and demand in their hinterland, the share of paddy sellers varies between 4.65 per cent and 26.19 per cent in different markets. The proportion of different type of paddy sellers is 55.27 per cent for producer sellers, 42.55 per cent for village traders, and 1.59 per cent for urban traders.

The average participation of oilseed sellers is 15.75 per cent in the periodic markets. It varies from 3.59 per cent to 34.35 per cent in different periodic markets. Out of 34 periodic markets, 14 markets have been recorded proportionally above the average (15.75 per cent). Moreover, the share of fruits and pulses sellers is 9.64 per cent and 6.82 per cent respectively. Proportion of different fruit sellers is such as 15.93 per cent for producer sellers, 46.38 per cent for village traders, and 37.69 per cent for urban traders.

The average participation of non-producer sellers is found 80.53 per cent in selected periodic markets. It is higher due to prevailing unemployment and under
employment in the study area. They trade crops in the periodic markets for their livelihood or supplementary income to sustain their lives.

Size of holding and participation of producer sellers in the periodic markets has inverse relationship. Higher share of producer sellers refer to lower the size of land holdings. More than 95 per cent producers belong to marginal, small and semi-medium categories of farmers who have holding less than 4 hectares while only less than 5 per cent belong to medium and high categories who have above the 4 hectares land holding.

The average prices of agro-crops in periodic markets are comparatively lower than that of the town markets. The prices vary with location of the market, characteristics of the hinterland, nature of demand and supply, durability of the commodities, accessibility and transportation.

Different market channels have been identified for different commodities in the district. The length of channels decides the complexities and price at consuming stage. Reduction in length of marketing channels is a strategy of effective marketing and it assures remunerative price for different commodities to the farmers.

The livestock marketing is in rudimentary and unorganized form in the study area. The animal transaction appears to be spatio-temporal and socio-economic oriented. Moreover, seasonal variation and festival (such as Eid-ul-Azha) are also responsible for spatial as well as temporal variation in transaction of livestock in the periodic markets.

The study reveals that total annual average number of livestock 336908 heads (buffalo, cattle, and goat) is transacted in the periodic markets. It has variation from 8164 heads to 38428 heads in different markets. It is due to their location, size, nature of catchment area, connectivity, fair prices, protection of traders inside of markets from bogus intermediaries as well as outside from robbers.

Buffalo, scores the largest number (144820 heads) of livestock transaction is followed by goats (139958 heads) and cattle (52130). The large number of buffalo and goats is transacted livestock in these markets due to the increasing demand of meat both
mutton and beef within as well as outside of the study area. Therefore, the animals for meat have top ranking place with 76.20 per cent of total transaction of goats and 48.46 per cent of total buffalo. However, transaction of milch livestock takes second position in which the share of cattle, buffalo, and goats is 45.14 per cent, 28.04 per cent and 23.80 per cent. The milch livestock are demanded for milk and milk products (khoa, ghee) and for nutritional security particularly in rural masses. Proportion of livestock transaction for draught purposes occupies third place (18.59 per cent). It is due to increasing of mechanization in agriculture, in which the demand of draught animals has been sharply reduced. Cattle have been recorded comparatively higher proportion (54.86 per cent) than buffalo (23.5 per cent) in use wise transaction of livestock.

The share of sellers, who deal with transaction of livestock is 62.57 per cent for buffalo, 21.23 per cent for cattle, and 16.20 per cent for goats. The higher proportion of buffalo sellers reflects immense rearing pattern and uses of buffalo as well as cattle in the catchment areas of markets. Different buffalo sellers, i.e., producer sellers, village traders, urban traders have their share 93.31 per cent, 4.10 per cent and 1.99 per cent, which varies market to market. Similarly, in cattle transaction the share of producer sellers is 96.63 per cent. However, the share of village traders and urban traders is 2.79 per cent and 0.59 per cent respectively. The lion’s share of producer sellers is because of generally buffalo are reared and transacted for purposes of milk, and he buffalo for ploughing and sowing the field as well as pulling carts by marginal and small farmers, whose concentration is high in the study area.

Among the goat sellers the proportion of producer sellers is 86.26 per cent which is followed by village traders (8.17 per cent), and urban traders (5.57 per cent). It is due to the dominance of small size landholders and agricultural labourers in study area. Goats are quick cash for these workers, so they prefer to rear and sell them.

Landholder and landless livestock sellers have their share 46.94 per cent and 53.06 per cent respectively. The landless traders consist of agricultural labourers, leaseholders,
and casual workers, who are usually under employed in the study area. The livestock rearing and trading is the lucrative business among them to supplement their income and livelihood in rural as well as urban masses.

Holding wise, the marginal farmers are leading traders (63.63 per cent) in periodic markets followed by small farmers (22.65 per cent), semi-medium farmers (9.48 per cent), medium and large farmers (4.24 per cent). Higher proportion of low size of landholders in the livestock trading is due to the absence of alternative employment opportunity, under employment, fragmentation in the size of the fields in the study area.

The average price of various livestock is from Rs.632 per head to Rs.9525 for different type of buffalo, from Rs.3886 per head to Rs.5607 per head for different kinds of cattle, and from Rs.1818 per head to Rs.2414 per head for different goats in the periodic markets. The price of livestock fluctuates in these markets with the quality and size of livestock, nature of demand and supply pattern, season of agricultural operations, weather conditions, and distance of markets from the cities/towns as well as arrival of outside traders.

Like other commodities, the livestock follow a number of flow systems from producers (rearers) to ultimate consumers (rearers/butchers). Channels may be short or long, depending upon the length of distribution of concerned livestock. The various kinds of livestock have their distinct flow channels.

It is quite clear from the above discription that periodic markets have been playing an important role in the transaction of agricultural commodities and still increasing their influence.

Moreover, it has been found that agricultural marketing, especially in periodic markets, faces a number of difficulties. Organizational as well as infrastructural deficiencies are not uncommon. Some of the major deficiencies are lack of space for auction, lack of standards weight and measures, lack of grading facilities, lack of management, lack of communication and accessibility, and lack of storage facilities. There
is an urgent need to reduce these problems, which will help the farmers and thereby helping in agricultural development of the district.

Taking into consideration the prevailing marketing system in the district, a number of steps should be taken for betterment of the periodic markets in order to make efficient agricultural marketing. They are as follows:

1) An elected Periodic Market Committee (PMC) should be constituted for each periodic market to supervise the transaction.

2) A price list should be released every week for different commodities in different periodic markets and also in town markets in the study area.

3) These markets should be connected to regulated markets and main road by link road to promote the trading.

4) Regulation of traders, arahatias, brokers, weighmen, and so on is needed. All malpractices like dharamshala, goshala charges, bathaki charges should be defined and also should be under control of PMC.

5) Storage facilities and warehouses and multi-purpose cold storage should be established near the periodic markets.

6) Agricultural inputs like fertilizers, pesticides, insecticides, seeds, and implement should be distributed properly through periodic markets. This system will save the farmers' time from visiting other service centres.

7) The agro-based industries should be established near the periodic market centres for the best utilization of available raw material and to provide good return to the farmers.

8) Private entrepreneurs should be allowed to establish market yards and other-related facilities in the periodic markets to accelerate marketing of agricultural commodities.

9) A scientific approach for the structural analysis of agricultural commodities should be made, that must be considered as standard approach to balance in the seasonal prices received by farmers and prices paid by the consumers.
10) Micro credit facilities should be provided to enhance trade and the income level of the traders and sellers of unorganized sectors.

11) Government and private purchase centres (formal agencies) should be set up in the periodic markets. Cooperative marketing system should also be started in these markets.

12) Periodic markets should have telephone, fax and internet facilities, for the quick information of price and demand as well as allowing electronic trade.

Moreover, the above mentioned facilities if provided and developed at grass roots level would enable to the producer, trader as well as consumers to get maximum benefit. An efficient periodic marketing system, well equipped with adequate modern facilities with good socio-economic security is urgently needed for getting the benefit of crops and livestock revolution taking place at global level after increasing influence of WTO in agricultural sector. The study would be helpful for rather high development of agriculture and allied processing at grass roots level linking to the regional, national, and international markets that would increase the income of marginal, small farmers, non-producer sellers to add new dimensions in the development of the district and in Indian agriculture.