ABSTRACT

Role of Commercial Crops in Socio-Economic Development- A Micro Level Study (Western U.P.)

Commercialization of agriculture is one of the best indicators for agricultural development. The degree to which market forces have penetrated an area and the scale upon which they operate will be crucial factors in almost every question of agricultural development. A directed effort at commercialization of agriculture may involve articulation of farmer’s psychology towards that end, provision of marketing facilities and above all a rise in the yield of agricultural produce.

The concept of commercialization refers to the increasing share of the marketable surplus in the total farm business income of the farms. This share can be increased by (i) generation of more marketable surplus in subsistence oriented food grain crops (ii) by increasing production of market oriented commercial crops and other products (collectively known as high value adding enterprises) and (iii) both. An increase in food grain production through improvement in productivity of land and diverting area for the high value adding crops or other enterprises will ensure food security and commercialization simultaneously.

Commercial agriculture is characterized by the production of agricultural commodities for sale. In commercial agriculture, capital is made use for the purchase of tractors and machinery, fertilizers, pesticides, HYVs, better breeds of animals, and many other technological innovations. Usually, farmers handling commercial agriculture are greatly affected by the market conditions, whereas farmers associated with subsistence agriculture are not much concerned with fluctuations in the market prices and subsistence polarity which can easily be recognized. However, when there is a gradual shift from subsistence farming to commercial farming it becomes somewhat difficult to identify the nature of this change. The degree of commercialization will obviously vary from place to place, depending largely upon the size of the farm business, size of the farm family, type of farm enterprise, and having standard of the farmers.

Commercialization of agriculture promises a boost both in productivity and income of farmers. In fact, liberalization and globalization are compelling, Indian agriculture to shift its focus from being supply driven, to market driven. Any inability
to adopt the changing need may limit farmer’s market and income opportunities. In that case commercialization of agriculture is not only necessary but also essential. There is a vast potential for stepping up value addition in Indian agriculture. Commercialization is a process of transformation of agriculture and the peasant way of life. In other words, this is implies changing the traditional subsistence economy into a market economy. Hence, from time to time, various techniques have been used to measure the degree of commercialization they are based on a portion of arable land devoted to commercial crops and gross output in rupees.

The successful launch of green revolution and subsequently the introduction of technology in agriculture have completely changed the agricultural scenario. The old time-tested way of farming is making way for cultivation with the help of new generation inputs. Manures are being replaced by chemical fertilizers. Even marginal lands are being ploughed. Irrigation is extended even to the most arid areas. High yielding and short duration seeds, pesticides, etc. have changed the age and farming system. The production possibilities have increased many folds with the use of these inputs. The farmers have started producing surplus with the result that they now think of maximizing the returns from their lands. Although, the introduction of new technology led to commercialization of agriculture.

Production of commercial crops depends on interaction of several natural, social, economic and cultural factors. Among from the marketing point of view commercial crops are more profitable than cereals. These commercial crops provide raw material to many industries. Usually those crops are kept in the class of commercial crops which are transformed into useful products after major processing.

To meet the growing challenges, the Indian agriculture has to improve its efficiency effectiveness and adaptability. Keeping in view the fact that the agricultural progress is complex, multi-sectorl, and requires multiple supports at the entry points, the development of farm sector can be primarily achieved through increasing investment in agriculture, stepping up credit flow to farmers, increasing investment irrigation, developing effective risk mitigation measures, increasing funds for agricultural research by creating effective marketing of agricultural produce.
The present study has certain specific objectives:

1. To measure the regional patterns of the levels of agricultural productivity variation indices of crops like cereals, pulses, oilseeds and commercial crops.
2. To assess the land use and cropping pattern in district Bijnor.
3. To find out the agricultural productivity at block level in the district Bijnor in terms of monetary value.
4. To examine the physical socio-economic profile of the study area and which provide the basic framework for evaluating the situation of agriculture.
5. To study the socio-economic background of the sample villages and their characteristics.
6. To measure the role of commercial crops productivity increase in socio-economic variations.
7. To suggest viable measures to increase productivity and socio-economic development on the basis of micro level study in selected villages.

In the light of above the present study is based on both primary and secondary source of data. The present study has been conducted at three levels as i) Macro level (Region): where region western Uttar Pradesh has been taken as a unit of analysis. This is based on secondary source of data, ii) Meso level (District): where district Bijnor has been taken as a unit of analysis. This is based on secondary source of data and iii) Micro level (village): where household chosen from the selected villages as a unit of analysis and observation. This is based on primary source of data.

There are various methods of sampling but in the present study purposive sampling techniques has been adopted to obtain data and information. Among the 26 districts of Western Uttar Pradesh the district Bijnor has been selected for the purpose of this study. It is a representative unit among the all districts. There are 5 Tehsils in district Bijnor namely- Bijnor, Nijibabad, Nagina, Chandpur and Dhampur. All Tehsils have been selected purposively for the study.

In order to bring out the clear-cut picture of the villages primary data has been collected with the help of well structured questionnaire and schedules. After getting a list of all villages from all selected Tehsils, five villages (one village from each Tehsil, namely Madhusudnapur Nand Jhalra from Bijnor, Shahmuzaffarpur Chamrawala from Nagina, Jogipura from Chandpur, Taharpur Said from Dhampur
and Jaswantpur Lukadari from Najibabad have been selected randomly for the purpose of study.

The data after collection have been processed and analysed in accordance with the outline laid down for the purpose. Therefore, first of all, the collected data (primary as well as secondary) has been edited in order to detect errors and omissions and to correct these. Editing is done to assure that the data are accurate, consistent with other facts gathered and as complete as possible.

To analyse the data standard statistical techniques have been applied like simple percentage, yang yield index method, per hectare price, composite Z-score technique and various diagrams have been prepared to display the data and the results. The maps in the thesis are prepared by GIS Arc view 3.2 versions the results are exposed in sharp focus through a set of maps.

The present thesis has been divided into seven chapters. First chapter deals with the conceptual framework, significance of the study, statement of the problem, objectives, review of literature and research methodology. Second chapter described the biotic and abiotic setting of the Western Uttar Pradesh which lies approximately between 26° 20'N and 31°18' N latitudes and 77°41' E and 81°49' E longitudes. It covers an area of about 80,076 sq.km and holds a population of about 61.06 million persons. This region comprises twenty six districts. Third chapter examines the agricultural productivity variations in Western Uttar Pradesh which is the manifestation of efficiency of various inputs used in productive operation. The productivity indices have been calculated by adopting a statistical technique propounded by Yang (1965), because it has its relative merit over other method. The productivity indices have been computed for two different periods i.e. 1990-91 to 2005-06. For calculating agricultural productivity, sixteen major crops grown in the region were considered. These were grouped into as Cereal crops: rice, wheat, barley and jowar. Pulse crops: gram, pea, black gram, pigeon pea and lentil. Oilseeds: mustard, groundnut and sesame. Commercial crops: tobacco, cotton, sugarcane and potato.

Agricultural productivity of Western Uttar Pradesh has been assessed by applying per hectare price. All the important crops grown in the region have been considered for the computation of the productivity for the year 2005-06.
Fourth chapter discussed the agricultural profile of the Bijnor district. The reporting area in Bijnor district for land utilization purpose was estimated as changing trend in two points of time that is 484800 hectares in 1990-91 and 464578 hectares in 2005-06 for different purpose like forest land, barren and uncultivated land, land under non-agricultural uses, permanent pastures and grazing land, land under miscellaneous use, cultivable waste land, fallow land, net sown area more than once and gross cropped area.

Cropping pattern is the central element of agriculture land use. There are two cropping seasons in the districts viz. Kharif and Rabi season. During these season numerous variety of crops are grown here. Among the all crops sugarcane is a valuable commercial crop for the farmers in the study area. Sugarcane has a remarkable progress in area as well as production with compared to other crops during the 1990-91 to 2005-06. In other words it can be said that farmers of the study area are moving towards cultivation of commercial crops as against the other crops. In commercial crops sugarcane has a key position in the study area. The whole socio-economic activities of the farmer revolve around its highly remunerative value. As sugarcane is the major commercial crop there are more than thirteen sugar mills and many khandseari industries, power crushers are situated in the study area. Sugar mills are providing cane sets, pesticides, extension services and financial assistance to the member farmers.

Agricultural productivity is an essential aspect of agricultural development. Crop productivity is to be judged not merely from quantity of production but also from the variety and quality of the produce. Agricultural productivity of Bijnor district has been assessed by applying per hectare price. All the important crops in the district have been considered for the computation of the productivity for the year 1990-91 to 2005-06.

Sugarcane holds enviable amounts in all the commercial crops accounting for 39.17 percent of the total gross cropped area in 1990-91. The area coverage under the sugarcane in Bijnor district has increased in 2005-06. Productivity of sugarcane also increases due to better irrigation facilities, fertilizers, road connectivity as well as use of pesticides. The highest per hectare price of Sugarcane was in Haldaur block i.e. Rs. 31785.6 in 1990-91 which increases to the Rs.81109.82 in Kotwali block during the
2005-06. The per hectare price of potato was recorded as Rs. 30862.14 in Kotwali Block during 1990-91 while in 2005-06 it rises to Rs. 99082.2 in Jalilpur Block due to various changes in adoption of technology, HYVs, plant protection facilities, marketable surplus at farmer’s level and so on. Limiting to the small area under the cultivation of cotton it was grown only in seven blocks during 1990-91. The per hectare price of cotton was high in Nehtaur block i.e. Rs. 4029.58. Farmers are hesitant to grow cotton due to physical conditions as well as type of soil is not suitable for the cultivation of cotton. In the case of tobacco the same situations are also persists in the study area.

The per hectare price of cereals, pulses, oilseeds has rises from 1990-91 to 2005-06 in all blocks of the Bijnor district. The factors behind the increase of per hectare price are more production availability of HYVs, Irrigation facilities, awareness of farmers to the technology, rising minimum support price etc.

Fifth chapter deals with the twenty four indicators with the help of Z-score statistical technique have been used to measure the socio-economic development of the district. Socio-economic development in literal sense indicates the quality of education, health facilities, communication and transport, industrialization and agricultural production of the district. The overall socio-economic development of the Bijnor district during the year 1990-91 at block level is high in Nehtaur, Afzalgarh and Seohara blocks. Medium level of overall socio-economic development is found in Dhampur, Nehtaur and M. Deomal blocks. Rest of the blocks comes under the low level of overall socio-economic development which includes Kiratpur, Haldaur, Nurpur, Najibabad and Kotwali. During the year 2005-06 the overall socio-economic development of Bijnor district at placed well in Seohara block, shows a higher level. Other blocks like Najibabad, Kiratpur, M. Deomal, Nehtaur and Jalilpur also have a positive trend, but remaining blocks which have negative trend they are Nurpur, Afzalgarh, Haldaur and Kotwali.

Sixth chapter is based on primary data which had been conducted during 2008. Five villages were selected from different Tehsils of the district widely spread over so to make them fairly representative of their respective Tehsil. From each village about thirty percent households amounting to a total of 227 were selected and interviewed, in order to assess the brief account of the socio-economic structure of the respondents. The socio-economic structure of the respondents consisting of economic structure
includes cropping patterns, land holding, livestock, mechanization, irrigation and electricity. Social structure includes age, education, religion, housing, banking and income have been discussed to ascertain by conducting micro-level study in the selected villages. In the last chapter of the thesis summary, conclusion and suggestions of the study have been highlighted.