A STUDY ON AGRICULTURAL DEVELOPMENT AND CHANGES IN THE CROPPING PATTERN IN VILLUPURAM DISTRICT

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ABSTRACT

Indian agriculture has not been given the due attention it required or the necessary outlay has not been allocated over the plan period, except the First five year plan. Review of the studies brings out the fact that a long-term vision is lacking as far as the development of the agricultural sector and that of the rural areas are concerned. Agricultural growth has been left to the mercy of Nature, which has created the cyclical fluctuations in the area and production of most of the crops over the time period. Studies have also shown that the agricultural price policy, procurement policy, policy of distribution, financial outlay policy and the overall development of the rural sector have not helped in attaining a balanced, broad-based and sustainable growth of the agricultural sector. Thus, the present study aims to examine the cropping pattern and the economic status of the sample households in Peravalur village located in Gingee taluk, Villupuram district.

KEYBOARDS: *HYV SEEDS, RABI SEASON, KHARIF SEASON, ZAID SEASON, NSC, SSC, MONOCROPPING, MONOCULTURE, CROP ROTATION.*

INTRODUCTION

Cropping systems of a region are decided by and large, by a number of soil and climatic parameters which determine overall agro-ecological setting for nourishment and appropriateness of a crop or set of crops for cultivation. –Nevertheless, at farmers' level, potential productivity and monetary benefits act as guiding principles while opting for a particular crop/cropping system. These decisions with respect to choice of crops and cropping systems are further narrowed down under influence of several other forces related to infrastructure facilities, socio-economic factors and technological developments, all operating interactively at micro-level. These are:

Infrastructure facilities: Irrigation, transport, storage, trade and marketing, post-harvest handling and processing etc.

Socio-economic factors: Financial resource base, land ownership, size and type of land holding, household needs of food, fodder, fuel, fibre and finance, labour availability etc.

Technological factors: Improved varieties, cultural requirements, mechanization, plant protection, access to information, etc.

PREVALENT CROPPING SYSTEMS

Multiplicity of cropping systems has been one of the main features of Indian agriculture. This may be attributed to following two major factors:

• Rainfed agriculture still accounts for over 92.8 million hectare or 65 per cent of cropped area. A large diversity of cropping systems exists under rainfed and dryland areas with an over riding practice of intercropping, due to greater risks involved in cultivating larger area under a particular crop.

• Due to prevailing socio-economic situations (such as; dependency of large population on agriculture, small land-holding size, very high population pressure on land resource etc.), improving household food security has been an issue of supreme importance to many million farmers of India, who constitute 56.15 million marginal (<1.0 hectare), 17.92 million small (1.0-2.0 hectare) and 13.25 million semi-medium (2.0-4.0 hectare) farm holdings, making together 90 per cent of 97.15 million operational holdings. An important consequence of this has been that crop production in India remained to be considered, by and large, a subsistence rather than commercial activity. One of the typical characteristics of subsistence farming is that most of the farmers resort to grow a number of crops on their farm holdings, primarily to fulfil their household needs and follow the practice of rotating a particular crop combination over a period of 3-4 years interchangeably on different farm fields.

Under influence of all above factors, cropping systems remain dynamic in time and space, making it difficult to precisely determine their spread using conventional methods, over a large territory. However, it has been estimated that more than 250 double cropping systems are followed through out the country. Based on rationale of spread of crops in each district in the country, 30 important cropping systems have been identified.

These are; rice-wheat, rice-rice, rice-gram, rice-mustard, rice-groundnut, rice-sorghum, pearlmillet-gram, pearlmillet-mustard, pearlmillet-sorghum, cotton-wheat, cotton-gram, cotton-sorghum, cotton-safflower, cotton-groundnut, maize-wheat maize-gram, sugarcane-wheat, soybean-wheat, sorghum-sorghum, groundnut-wheat, sorghum-groundnut, groundnut-rice, sorghum-wheat, sorghum-gram, pigeonpea-sorghum, groundnut-groundnut, sorghum-rice, groundnut-sorghum and soybean-gram.

ISSUES IN IRRIGATED CROPPING SYSTEMS

The major issues emerging in the irrigated cropping systems may be categorized into two groups; i.e., general and system specific.

General Issues

Resource characterization

Adequate information is lacking on site-specific characterization of land and water resources and climatic parameters, which is crucial for efficient land use planning and resource deployment.

Farmer's Participation

To develop and improve upon existing agro-technologies, it needs to be acknowledged that involvement of farmers in conceptualization and extension of technologies is of paramount importance. But in the past, a critical lacuna in agricultural research approach has been inadequate effort or lack of mechanisms to build up research programmes that take into account the experience and knowledge base that exists within the farming community. The farm family had never been the focal point of investigations. This top down approach of agricultural scientists had given a poor perception of the problems that they tried to solve. Nevertheless, it needed to be considered an integral component of cropping/farming systems research, particularly applied aspects of it.

LEGUME BASED CROPPING SYSTEMS

Legume crops (pulses and oilseeds) are popular for their suitability in different cropping systems. Recent advances in the development of large number of varieties of pulse and oilseed crops, varying largely for maturity duration, have made it possible to include them in irrigated crop sequences. The popular cropping systems are pigeon pea-wheat in Madhya Pradesh and groundnut wheat in Gujarat, Maharashtra and Madhya Pradesh and groundnut-sorghum in Andhra Pradesh and Karnataka. The major issues in legume based cropping systems are:

i. No technological breakthrough has been achieved so far in respect of yield barriers, particularly in legumes.

ii. Susceptibility of the pulses to aberrant weather conditions especially water logging and adverse soils making them highly unstable in performance.

iii. High susceptibility to diseases and pests.

iv. Low harvest index, flower drop, indeterminate growth habit and very poor response to fertilizers and water in most of the grain legumes.

v. Nutrient needs of the system have to be worked out considering N-fixation capacity of legume.

STATEMENT OF THE PROBLEM

Cropping pattern in an economy is an important factor that determines the quantum of output, marketed surplus, price level, etc. Changes in cropping pattern takes place due to various reasons, like natural factors, technological factors, institutional factors, political factors and also economical factors. In an economy, where more than 60 per cent of the total population is depending on agriculture for their livelihood, it is imperative that there is no any undue changes take place in that sector; as that could serious impinge their lives. But, in the recent past, cropping pattern has been changing at both macro and micro levels in India. Thus, it becomes inevitable to analyse the cropping pattern changes in the agricultural sector.

SIGNIFICANCE OF THE PROBLEM

The process of liberalisation which was unleashed through the economic reform measures has altered the agricultural sector in India, though no explicit measures were introduced for the agricultural sector. The influence of agricultural import and export, the arrival of genetically modified seeds along with the declining presence of Governmental institution in the rural areas have all severally crippled the lives of the rural masses. In the last few years, lakhs and lakhs of farmers and others have committed suicides, which have not taken place in any other sector or occupation. Cropping pattern change can also be cited as one of the reasons for this kind of agricultural and rural distress. Hence, it is important to study the cropping pattern not only at the national level, but importantly at the district level. Thus, the present study tries to analyse the cropping pattern in Villupuram District.

OBJECTIVES OF THE STUDY

The following are the objectives of the study:

1. To examine the basic characteristics of the respondents in the study area;
2. To study the profile and cropping pattern of Villupuram district;
3. To analyse the cropping pattern in among the sample households; and
4. To trace the role of irrigation in influencing cropping pattern among the sample households.

HYPOTHESES OF THE STUDY

The following are the hypotheses of the present study:

1. Farm size influences the extent of irrigation and
2. Cultivation of high value crops and thus income of farm households signifies the number of electric pump sets used.

METHODOLOGY OF THE STUDY

This study is based on primary data. The required data required have been collected from two villages, viz., Peravalur and Kodambadi, from which 30 sample households each have been selected and both of them are located in the Gingee taluk of Villupuram district. A total of 60 sample farmers have been selected from this village. All the sample farmers own pump sets and care has been taken to include all types of farmers, according to their size of land holdings, community and also educational level. The data from these sample farmers have been collected with the help of a standard questionnaire and since, these two are very agriculturally active villages in the district, they can be considered as truly representative.

CONCLUSION:

Indian agriculture has not been given the due attention it required or the necessary outlay has not been allocated over the plan period, except the First five year plan. Review of the studies brings out the fact that a long-term vision is lacking as far as the development of the agricultural sector and that of the rural areas are concerned. Agricultural growth has been left to the mercy of Nature, which has created the cyclical fluctuations in the area and production of most of the crops over the time period. Studies have also shown that the agricultural price policy, procurement policy, policy of distribution, financial outlay policy and the overall development of the rural sector have not helped in attaining a balanced, broad-based and sustainable growth of the agricultural sector. Thus, the present study aims to examine the cropping pattern and the economic status of the sample households in Peravalur village located in Gingee taluk, Villupuram district.

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