Analysis of Performance of Electronic National Agricultural Markets: Some Evidence from Odisha

Chandan Khandagiri and Elumalai Kannan*

The paper analyses the effect of electronic agricultural markets on commodity arrivals, price volatility and the factors influencing the farmers' decision to participate in the electronic trading in Odisha. Both primary and secondary data were collected from select markets in Odisha. A field survey was conducted with a reference period 2018-19, covering 140 farmers, 40 traders, and 8 market officials. Primary data were collected from two electronic agricultural markets viz. Kantabanji in Balangir district and Kunduli in Koraput district in Odisha during October-November 2019. These markets are located in different agro-climatic zones and volume of trade through these markets was relatively high as compared to other markets in the state. The findings of the study revealed that while market arrivals of commodities had declined, average monthly prices had increased during the posteNAM period as compared to that in the pre-eNAM period. The increase in price was marked with a rise in volatility implying that markets are not fully integrated. Farmers' education, small landholding and higher age group had positive and significant effect on participation in electronic trading. Market distance did not seem to deter the farmers to sell their produce at the electronic market. There is a need to create greater awareness about functioning of electronic market system and impart training about the process of trading to the farmers and traders. This will help to improve their participation in the electronic agricultural markets considerably.

Farm Technical Efficiency and Its Determinants in Punjab Agriculture: Evidence from NSSO Survey

Manpreet Singh, Laishram Priscilla and Kamal Vatta†

An attempt is made in the paper to study the farm technical efficiency in Punjab and determine the various socio-economic factors which influence the efficiency by employing NSSO data. The study is based on the household-level data from the 70th round 'Situation Assessment Survey of Agricultural Households' by the National Sample Survey Office (NSSO), Government of India collected during 1st January 2013–31st December 2013. The mean farm efficiency was found to be around 84 per

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cent implying that the farms can raise output by 16 per cent without additional resources through efficient use of existing inputs and technology. The efficiency of the marginal and medium farm categories differed significantly while that among the other landholding categories were not significantly different. The major factors negatively affecting technical efficiency were household head's age, experiences of crop loss and access to formal loans while,crop cultivation as a principal income source, access to public extension and selling of at least one crop at MSP positively affected the same. Hence, agricultural policies should be directed towards policies and programmes that promote extension services in order to improve the performance of Punjab farmers. Measures to monitor productive end-use of credit should be taken up.

An Empirical Study of Problems in Production and Marketing of Cotton: A Case Study of Bathinda District of Punjab

Parveen Rani*

An attempt has been made to highlight the problems faced by the producers in the production and marketing of cotton in Bathinda district of Punjab. The study pertains to the agricultural year 2016-17. The production related problems include disease prone varieties of seeds, insect-pest attack, weeds attack, adverse effect on soil fertility, adverse effect on under-ground water quality, high cost of plant protection measures, high cost of human labour, lack of human labour and supply of spurious insecticides, etc. The marketing related problems include far away market, high transportation cost, high marketing charges, non-remunerative prices, malpractices in weighing and delay in auction, etc. Remunerative prices of the produce, direct payment to the farmers and correct weighment of the produce have emerged as the major market related suggestions put forth by the cotton growers. The study provides suggestions including supply of low cost insecticides and pesticides and supply of inputs at subsidised prices for improving the production and yield of cotton.

Changing Cost of Cultivation of Wheat, 1997-98 to 2017-18

Kunal Munjal†

The increasing cost of cultivation accounts as a direct contributor to declining farm income, apart from non-remunerative prices and falling productivity levels. This paper uses the official source of data on cost of cultivation, the CCPC-CACP scheme data, to examine the trends in the structure of cost of cultivation and discusses the

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salient features in the changing nature of components of cost of cultivation for the wheat crop. The real A2 cost of cultivation has been increasing since 2013 across all the states. Amongst purchased inputs, seed cost has witnessed a consistency in its share in paid-out cost and fertiliser's share has been declining over last two decades. Irrigation cost share has been increasing consistently, except in Punjab. Due to mechanisation, the share of machine labour shows manifold increase. Decreasing casualisation of labour is also visible post-2010. The findings suggest that state-specific policy measures must be intensified to control the costs to ensure better incomes for farmers. Post-pandemic agricultural revival policies must have focus on cost of cultivation controlling mechanisms.

Analysis on Cost, Return and Profitability of Rapeseed and Mustard Cultivation Among Leading States of India

Prasanna Kolar*, Gourav Kumar Vani** and Ankita Sahu*

The main objective of the study is to estimate the dynamics of cost, returns & amp; profitability of rapeseed and mustard across leading states of India. The area of study comprised of the following states which contributed more than 80 per cent of rapeseed and mustard production share in India. The bulk line method was used for selection of these states. The required secondary data were collected from the Directorate of Economics and Statistics to address the stated objectives for the period 1996-97 to 2015-16. The results of the present study indicate that cost of cultivation for rapeseed and mustard in Haryana increased at highly significant annual growth rates compared to other states during the past two decades. Parameters like fixed cost, variable cost, total cost, gross income in Haryana along with actual yield, net income, B:C ratio in Madhya Pradesh as well as cost of production in Rajasthan for the R&M showed relatively higher growth rates. Relatively lower growth rates of fixed cost, actual yield in Rajasthan plus variable cost, cost of production in Madhya Pradesh then total cost, gross income, net income, B:C ratio in Uttar Pradesh were noticed. Break-even yield was grown at higher annual growth rate in Uttar Pradesh and at lower rate in Madhya Pradesh. Margin of safety was positive in all the leading states except in the current year for Uttar Pradesh indicating that farmers were able to produce above the breakeven level (profit-zone). Cost of production in rapeseed and mustard was lower than the minimum support price fixed by the government both during the base year and current year in Rajasthan, and only during the current year in Haryana and Madhya Pradesh signifying assured profits for the farmers. Some of the suggestions to improve the profitability of rapeseed and mustard include MSP should be fixed considering its cost of production (cost C 2) to assure the minimum profits and also to safeguard the farmers. All the farmers should be made aware of the

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minimum support price before sowing of the crop, so that they can plan and cultivate the crop accordingly, because most of the farmers are unaware of these prices according to various government reports and which in turn lead to unnecessary marginal costs thereby cost of production surpassing minimum support prices.

Growth Performance of Rice in India - Temporal Analysis

Paladugu Praveen Kumar † , S.R. Devegowda ‡ , M. Nagaveni $^{\#}$ and Patluri Deepthi ††

The study focused on the growth, decomposition and instability of area, production and yield of rice for the period rice, using time series data from 1970-71 to 2019-20. Data analyzed for the overall period and decades. Area increased significantly over the decades but non-significant increase for the period 1980-90 and 2010-20 decades. Negative trend in area was observed in 2000-10 decade. All the decades, as well as the overall period, production increased significantly. Yield increased by a non-significant amount in the first decade and by a considerable amount in all later decades. Decomposition analysis revealed that the area impact was greater in rice for the periods compared to the yield effect. The yield effect was greater in the 1970-80 decade and the 1990-00 decade compared to all other decades, while the interaction effect was lower in rice. Production is the most insecure, followed by yield, while the least so is area. Over all the periods, the 1980s and 1990s were found to be the most unstable time period in terms of production and yield.

Agricultural Reforms and Farmer's Protests in India

Ajay Kumar Sharma*, Meenakshi Gupta** and Roop Lal Sharma**

Peasant movement in India is led by several renowned social workers. The movement actually got great impetus post 1980s. Indian agriculture has witnessed remarkable changes since 2014. The paper aims to analyse the peasant movement in India and impact of the same on the agricultural community and reforms. The present Government has brought several schemes, which have alternatively created much benefit for the development of the people. However, the problematic situation still persists whereby the farming in India, and particularly in north Indian states, is affected because of the developmental projects and climatic obstacles. The Government has promised the farmers to double their production by 2022, however even by the end of 2019; there is not much progress on this commitment.

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Agricultural Marketing in Northeast India: Prospects, Challenges and Opportunities under New Reforms

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The purpose of the paper is to highlight the existing prospects and challenges in the agricultural marketing sector of the NER and opportunities created by the recent agricultural marketing reforms. The North Eastern Region (NER) of India is a centre of great agricultural diversity and employs about 70 per cent of the working population. The region is home to many exotic produce, high value plantations and enjoys a strategic geographical position for trade. However, the production is insufficient, farmers suffer from low returns, the regulated markets are far and wide apart, with limited facilities to take advantage of the new digital marketing system and the region depends on imports food from other parts of the country. The reforms in the agricultural sector is one of the first major steps the Government has taken to overcome the challenges that have stifled the agricultural economy. It creates opportunity for both public and private sectors to build the ecosystem where efficiency of markets will increase, creating time, place and form utility thereby ensuring economic stability of community in general and the farmers in particular. The region has always struggled to keep pace with the rest of the country in terms of growth and development, however with the strategic implementation of new projects in line with the new reforms may provide the much-needed push to the economy.

Recent Agricultural Reforms and Consequent Farmers' Protests

H.C. Harshitha and V.R. Kiresur*

The study aims to identify the provisions of agricultural reforms 2020, its pros and cons on farm sector. It also examines the implications of these acts on APMCs, MSP, prices, contract farming, risk involved in contract farming to the farmer, relaxation of storage limits of essential commodities post reform that attracts competitiveness in the market, central and state relationship after the implementation of these acts as agriculture is a state subject. It also discusses about the procurement system of agricultural produce and public distribution system in India by providing an insight into the issues related these acts, demand from the farmers regarding new agricultural reforms, farmers protest across different regions of the country. The three acts are revolutionary if the government addresses the loopholes of these acts. The loopholes of the acts are quite concerning and the government may discuss with

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farmers for efficient and effective implementation. The government should form a proper mechanism for contract farming so that no farmer is exploited by big greedy corporates. To solve disputes between farmers and traders, the government should establish a different regulatory body rather than Sub-Divisional Magistrate. The government should implement MSP in a more effective manner. Effective implementation is needed to empower the farmers and fuel their growth and development in the country to reshape the Indian economy.