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A Study on Growth in Agricultural Production: A Special Reference of Haryana

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Abstract – The present study discusses the trends and patterns in agricultural growth at the national and sub-national levels in India. Similarly, the performance of pulses in terms of area and output was not impressive during the study period. The use of technological inventions in the cultivation of other crops was also not so conspicuous in pulses.

Nevertheless, the increase in crop yield has been a major factor for accelerating production in the country since the late 1960s. The use of modern varieties, irrigation and fertilizers were important factors that ensured higher growth in crop production. However, technological and institutional support for a few crops like rice and wheat brought significant changes in crop area and output composition in some regions. The results of crop output growth model indicate that the enhanced capital formation, better irrigation facilities, normal rainfall and improved fertilizer consumption helped to improve crop output in the country.

Keywords: Crop, Production, Agriculture

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INTRODUCTION

The Indian economy has undergone structural changes over time with the anticipated decline in the share of agriculture in the GDP. Despite a fall in its share from 55.1 per cent in 1950-51 to 17.0 per cent in 2008-09, the importance of agriculture has not diminished for two major reasons. First, the country achieved self-sufficiency in food production at the macro level, but still is a food deficit country facing massive challenges of high prevalence of malnourished children and high incidence of rural poverty.

The pressure on agriculture to produce more and raise farmers' income is high. Second, the dependence of the rural workforce on agriculture for employment has not declined in proportion to the sectoral contribution to GDP. This has resulted in widening the income disparity between the agricultural and non-agricultural sectors.

The experiences of developed countries show that transfer of labour force from agriculture to non-agriculture; in particular the manufacturing sector took place. This had brought enhanced productivity growth in agriculture and hence higher income. However, India's manufacturing sector witnessed volatile growth and its share in GDP has almost remained constant at 15 per cent for the last three decades. Further, given the fact that the current economic growth pattern is driven by the service sector, labour absorption outside agriculture will be slow until rural education improves dramatically in the near future. Under these circumstances, higher growth in agriculture assumes great importance and is a matter of concern for policy planners and research scholars in recent times.

Sustained agricultural growth, which is facilitated through constant policy and institutional support has the potential to augment growth in the rural economy and associated secondary activities like food processing and retail trading. However, agriculture-led rural industrialization has not received due attention from policy makers in the country notwithstanding the fact that maintaining the growth of agricultural per se was lost sight of during the 1990s.

In fact, the growth performance of agriculture at the national level was splendid during the 1980s and its deceleration during the 1990s was attributed to the reduction in and/or stagnation of public expenditure on agricultural infrastructure, defunct extension services and biased economic reforms.

However, there has been a renewed policy thrust from the government since mid-2000s to revive agricultural growth through various development programmes such as interest subvention on crop loans, the National Food Security Mission, the National Agriculture Development Programme

(Rashtriya Krishi Vikas Yojana) and the Pulses Development Programme. These programmes are likely to affect agricultural growth and farmers' income in the country by providing greater flexibility to the state governments to allocate resources to the priority areas of development.

Aside, patterns and trends in India's agricultural growth is a well-researched subject. Systematic efforts were made to analyse growth in crop output and its elements through decomposition analysis. Historical aspects of agricultural growth, disparity and impact on farmers' income and employment have been studied by several scholars.

SCOPE OF THE STUDY

The present study contributes to the existing knowledge base on Indian agriculture in a way that it estimates the crop output growth model through econometric method. The study also discusses the trends and patterns in agricultural growth at the national and state levels. The paper is organised in seven sections.

While the second section discusses sources of data used for the study, the third section analyses changes in cropping pattern and output at national level. Growth performance of major crops and crop output growth model at All India level are presented in the fourth and fifth section, respectively. The sixth section presents the growth performance of crops sector at regional level and the final section provides concluding remarks.

It is well documented in the literature that growth in area was the major source of production growth until early 1960s. The high yielding varieties introduced in wheat and rice during the late Sixties heralded India's green revolution. Along with technology, new institutional structures enabled the farmers to adopt improved methods of cultivation.

RESEARCH STUDY

The major changes included provision of better irrigation facilities, government procurement system, guaranteed support price and input subsidies. As evident from the Table 3, wheat production registered compound annual growth of 5.03 per cent during the early green revolution period.

Both yield and area contributed to higher growth in production. In the case of rice, growth in yield contributed to production growth of 1.84 per cent per annum. For food grains as a whole, the growth in area and yield were 1.75 per cent and 0.43 per cent, respectively and resulted in production growth of 2.19 per cent

Wheat yield also showed splendid growth of 3.57 per cent. Growth in yield of pulses and coarse cereals was appreciable. However, negative growth was reflected in the decline in area under food grains. Despite this, production of food grains was high at 2.73 per cent, which was contributed by yield growth of 2.97 per cent. Oilseeds recorded a growth rate of 5.46 per cent in production and 2.95 per cent in yield. This could be attributed to technology mission on oilseeds launched in mid-1980s, which laid emphasis on increasing productivity of oilseeds and bridging yield gaps between experimental stations and farmers' fields by adopting improved package of practices.

Similarly, cotton showed high growth in area by 3.50 per cent, production by 5.19 per cent and yield by 6.01 per cent. Potato and coconut also recorded a high growth in production and yield. However, the impressive growth in crop production observed during the 1980s was not sustained during the 1990s.

Growth in the yield of almost all crops declined during 1990-91 to 1999-00, i.e., the early economic reforms period. This was, in fact, a disturbing scenario, which resulted in low growth in crop output. However, there was increase in area for rice and wheat during this period. This occurred particularly in North West India where market incentives were in force in terms of price support, assured government procurement for wheat and rice and favourable policy environment for providing inputs to farmers at subsidized rates.

Growth in area under sugarcane and potato also increased during this period. Despite recording almost the same level of growth in yield, the negative growth in area resulted in a fall in production for coarse cereals. In the case of pulses, the decline in the growth of yield and negative growth in area led to fall in production. Consequently, growth in food grain production declined to 2.26 per cent during the economic reforms period when compared to 2.73 per cent in the mature green revolution period.

Other crops that showed respectable growth in production were wheat, cotton, coconut, sugarcane and rice. Further, 9 growth in food grain production was 2.06 per cent, which was only a little higher than the annual population growth of 1.64 per cent as per Census 2011. This implies that production of food grains has to be enhanced to achieve long-term food security in the country. It is also discernible from the longterm growth that area shifts have been taking place from coarse cereals and pulses towards high value crops like sugarcane, potato and the more remunerative oilseeds and fibres.

Policy interventions are required to encourage production of pulses and coarse cereals. Further, crop productivity has to be improved through better soil and water management, profitable crop rotation, innovative marketing and investment in farm education and rural infrastructure. Among these factors, the former two are essential in ensuring sustainability of agricultural production through effective maintenance of soil fertility and controlling pests and diseases. The latter factors are important in making agriculture profitable

through efficient marketing, access to and adoption of new technologies and providing incentives for making on-farm investment.

In the medium growth range also, most of the crops appear to be oilseeds and other commercial crops like cotton, arecanut, sugarcane, pepper, potato, tobacco and onion. Only a few food grains like pigeon pea, maize, wheat and gram are in this category. It is interesting to observe is that pulses, in particular pigeon pea, registere d medium growth rate in states like Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Orissa.

SIGNIFICANCE OF THE STUDY

There was widespread cultivation of this crop, compared to other pulse crops, probably due to availability of short duration high yielding varieties/hybrids and high market price. Given the high domestic demand for pulses and volatile international prices, cultivation of pulses should be encouraged by providing input incentives to farmers. In this regard, the National Food Security Mission (NFSM), in which pulses form an important component, has the potential to increase production in the country.

Meanwhile, the area under cotton registered medium growth rate in Andhra Pradesh and Haryana. Growth in sugarcane fell to the medium growth category in Karnataka, Maharashtra and Tamil Nadu. At the all-India level, arecanut, coconut, onion, pepper, rapeseed and mustard and potato registered medium growth rates. However, most of the food grain crops registered low or negative growth rate across the states.

Negative growth in area under food grains was visible in Andhra Pradesh, Bihar, Himachal Pradesh, Madhya Pradesh, Maharashtra, Orissa and Tamil Nadu. This implies that crop diversification is increasingly inclined towards commercial crops in these states resulting in shrinkage of area under coarse cereals and small millets. Interestingly, none of the crops registered negative growth in area in West Bengal during the period under study indicating that farmers continued to allocate the same proportion of area for cereals, vegetables and fibres. At the all-India level also, cereals, pulses, small millets and oilseeds like ground nut, linseed, safflower and sesamum registered negative growth in area.

CONCLUSION

Only five states, viz., Andhra Pradesh, Haryana, Punjab, Rajasthan and Uttar Pradesh showed medium growth in production of food grains. Other states registered a growth rate of less than 2.0 per cent only. Given the recent initiatives of the Central Government's law granting the right to minimum amount of food, raising food production across the states in the country assumes great importance. However, it may not be wise to put pressure on a few states that are already reeling under agricultural degradation to produce more food due to intensive cultivation.

In this context, regional comparative advantage in terms of weather, soil conditions, water availability and entrepreneurship need to be understood for developing appropriate strategy for crop planning. The cropping pattern should be devised according to the inherent potential of the regions to achieve enhanced agricultural production. For this to happen, policy and institutional structures have greater roles to play. These structures should be attuned to facilitate and respond to the germane needs of the farming community, which is willing to adopt high payoff technology to raise their income and living standards.

REFERENCES

————— (2009). Economic Liberalisation and Indian Agriculture: A Statewise Analysis. Economic and Political Weekly, 44 (52): pp. 34-44.

Balakrishnan, Pulapre (2000). Agriculture and Economic Reforms: Growth and Welfare. Economic and Political Weekly, 35 (12): pp. 999-1004.

Bhalla, G S and Gurmail Singh (2001). Indian Agriculture: Four Decades of Development. New Delhi: Sage Publications.

Chand, Ramesh and S. S. Raju (2009). Instability in Indian Agriculture During Different Phases of Technology and Policy. Indian Journal of Agricultural Economics, 64 (2): pp. 283-88.

Chand, Ramesh and Sonia Chauhan (1999). Are Disparities in Indian Agriculture Growing?. Policy Brief No. 8. New Delhi: National Centre for Agricultural Economics and Policy Research.

Chand, Ramesh, P Shinoj, Ashok Gulati and Kavery Ganguly (2011). Managing Food Inflation in India: Reforms and Policy Options. Policy Brief 35. New Delhi: National Centre for Agricultural Economics and Policy Research (NCAP).

Chand, Ramesh, S S Raju and L M Pandey (2007). Growth Crisis in Agriculture: Severity and Options at National and State Levels. Economic and Political Weekly, 42 (26): pp. 2528-33.

Cummings, Ralph W and S K Ray (1969). The New Agricultural Technology: Its Contribution to 1967-68 Production. Economic and Political Weekly, 4 (13): pp. A7-A16.

Deshpande, R S (1988). Growth and Instability in Maharashtra Agriculture. Arthavijnana, 30 (4): pp. 317- 39.

Deshpande, R S, M J Bhende, P Thippaiah and M Vivekananda (2004). Crops and Cultivation, State of the Indian Farmer A Millennium Study, Volume 9. New Delhi: Academic Foundation.

FAO (2009). State of Food Insecurity in the World 2009. Rome: Food and Agriculture Organisation (FAO).

Gadgil, Sulochana, Y P Abrol and P R Seshagiri Rao (1999). On Growth and Fluctuation of Indian Foodgrain Production. Current Science, 76 (4): pp. 548-56.

Gollin, Douglas, Stephen Parente and Richard Rogerson (2002). Role of Agriculture in Development. The American Economic Review, 92 (2): pp. 160-64.

Hazell, Peter (1982). Instability in Indian Foodgrain Production. Research Report 30. Washington D.C.: International Food Policy Research Institute.

Hirashima, S (2000). Issues in Agricultural Reforms: Public Investment and Land Market Development. Economic and Political Weekly, 35 (43 & 44): pp. 3879-84.

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