

A Study on the Current Trend of Agricultural Productivity in India and its Future Prospects

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Abstract

The present research paper tries to establish a linkage between the structural, technological and institutional policy reforms, which are responsible for the success of sustainable agriculture development. Although India has achieved a significant growth rate recently, it still suffers from agricultural distress. Hence this paper tries to reveal the present trend of agriculture productivity and its future prospects. Some secondary data have been collected to explore upon the realistic scene of agriculture and various policy initiatives made by the government. With the analysis of secondary data and extensive literature review, I have given some of the suggestive ideas for the growth and productivity of this sector.

Key Words: Agriculture, Growth, Productivity, Farm, Reforms.

INTRODUCTION

The agriculture sector of India is passing through a dynamic phase in the recent era of development. It provides 65% of employment opportunities for the working population of India. Since post-independence period, the Government of India has been initiating its policy framework for the structural, technological and institutional changes for agriculture. During 1st five year plan (1951-56), the special address was for the agriculture sector to deal with the food crisis. Since then there is found continuous decline in the composition of GDP from the agriculture and allied activities. With the concern of agricultural crisis and lower productivity, the 11th five year plan (2007-08 to 2011-12) made a target to reverse the deceleration in agriculture growth and productivity. On 12th five year plan the main focus is for the rapid and inclusive growth of the agriculture. The world economy has been witnessing the slow growth rate since 2008-09 which has resulted in sluggish growth in all the sectors of India. Although the farm productivity is low as compared to other developed countries, some improvements have been found due to certain developmental activities. These include, technological advancement, adoption of (High yielding Varieties) HYVs of seeds, usage of improved quality of fertilizers, insecticides, pesticides, new cropping pattern, new irrigation facilities, farm research and management practices.

Changes in the sectoral composition of gdp in india as per economic survey of india-2013-14

Year	Agriculture & Allied sectors	Industry	Services
1950-51	53.1	16.6	30.3
1960-61	48.7	20.5	30.8
1970-71	42.3	24.0	33.8
1980-81	36.1	25.9	38.0
1990-91	29.6	27.7	42.7
2000-01	22.3	27.3	50.4
2012-13	13.9	27.3	58.8
2013-14	13.9	26.1	59.9

LITERATURE REVIEW

Indian farm sector is highly recognized for its diversified trend of climate, cultivation pattern and numerous policy recommendations. It cannot be said confidently that we have achieved an absolute self-sufficiency in terms of food grain production due to the existence of poverty, malnutrition and hunger. The policy reform alone is not enough to raise agricultural growth. The policy reforms must be accompanied by appropriate and efficient investments in public goods such as rural infrastructure, irrigation, agricultural research and extension of education and health of rural people. However our future of farm sector depends on the budgetary policy framework of the government and right kind of public investments, Robert E. Evenson et al. (1999). Today India agriculture research is considered as one of the largest research works in the world. It has now achieved the progressive scale of agricultural growth due to adoption of modern technology and innovation. In many developed countries there is found declining trend of R & D for which there is found substantial down fall of overall productivity. The restoration of the growth in spending on agricultural R&D may be necessary to prevent a longer-term food price crisis, Julian M. Alston et al (2009). In developed countries, there have been a wide range of technological advances for agriculture, genetic improvement, usage of chemical fertilizers and pesticides, adoption of farm equipment and machinery, cultural and management practices. Research in both public and private sectors has been the principal source for new technologies and management. In fact Private sector agricultural R&D expenditures have been growing much faster than public agricultural research expenditures, Wallace E. Huffman (2010). Recently, attempts have been made to combine both eco innovation and pro-environmental activities for the effective outcome of product, process and practice in the farm sector. With the adoption of Eco- innovation approach, we can have lower consumption of natural resources, lower volume of carbon emission and high encouragement for eco-friendly business practices. Some innovative agricultural core business can actually raise the farm productivity and its contribution towards GDP. The impact of environment and climatic change could be observed thoroughly which plays the most important role for production and any other economic activity. Along with the objectives of storage, marketing facilities, recycling process, employment facilities, and customers based strategy on the entire idea of go green seems to be positive in the farm and rural environment Lynn Martin et al (2013). The economic survey report has mentioned following drawbacks of the Indian agriculture sector.

MAJOR DRAWBACKS OF FARM SECTOR IN INDIA

- I- The growth rates of productivity in agriculture sector are far below than the global standards.
- II- The productivity levels of rice and wheat have declined after the green revolution of the 1980s.
- III- Due to declining fertilizer-use efficiency there is found gradual decline in the soil fertility. Also, the food subsidy has increased substantially in the past few years.
- IV- According to the survey, GDP declined to 15.2% during the Eleventh Plan and then further decreased to 13.9% in 2013-14.
- V- There also has been decrease in the number of cultivators from 127.3 million (Census 2001) to 118.7 million (Census 2011).
- VI- Indian agriculture is still dependent on rainfall. About 60 per cent of the total food grains and oilseeds produced being grown in the kharif season, and with just about 35 per cent of the total area being irrigated.
- VII- Currently, India is in an anomalous situation of being essentially self-sufficient with large stocks of foodgrains on the one hand and recording high food inflation. Artificial scarcity has become the major cause for the high inflation rate.

VIII- In both domestic and international marketing, the excess of government interventions that were used to build a marketing set up have actually served as barriers to trade.

Structural Reforms

To increase the agriculture productivity and employment generation in this sector, there is a need to bring about structural changes, principally based on land reforms. The structural reforms and stabilization policies introduced in India in 1991, which gave priority to industry, tax reforms, trade and investment, banking and capital markets. It did not give any specific package specifically designed for agriculture. However free trade, agricultural market would provide price incentives leading to enhanced investment and output in that sector, (Balakrishnan, 2000). Through structural reforms we can have improved terms of trade for farm products, benefits from trade and specialization, introduction of new technology including bio-technology, increase in private investment in irrigation and marketing infrastructure like storage and transport. The Economic Survey of India 2014-15 has recommended the following structural reforms for the success of establishing a national common market and trade.

- I. To examine the Agricultural Produce Market Committee Act (APMC) Act, Essential committee (EC) Act, Land Tenancy (LT) Act, and any such legally created structures whose provisions are restrictive and create barriers to free trade.
- II. To initiate alternate marketing initiatives, like direct marketing and contract farming.
- III. To examine the inclusion of agriculture related taxes under the General Goods and Services Tax (GST).
- IV. To establish stable trade policy based on tariff interventions instead of non-tariff trade barriers.
- V. To develop and initiate competition in the agro-processing sector and incentivize the private sector to scale up investments.
- VI. To bring an effective government intervention for food grain production and distribution to avoid artificial scarcity and other bottlenecks

As per Moody in its credit outlook report, India's position in the world depends on the agricultural reforms as they have the bearing on fiscal deficit and inflation. These reforms have targeted to reduce the fiscal deficit by 3.6% in 2015-16. We can include the decentralisation of grains procurement, the process of disposing excess food grains, providing food and fertiliser subsidies through direct cash transfer.

Technological Reforms

Although India is considered as the labour surplus economy, the farmers of different parts of the country are bound to adopt technology to boost farm productivity. The technological reform in the agriculture was introduced in the year 1960s. It introduced High yielding varieties (HYV) of seeds to improve overall production. This also introduced chemical fertilizers, pesticides and technological advancement for the productivity and growth of farm sector. The same category of revolution was felt. During eleventh five year plan 11th five year plan, to keep pace with improved production. The new machines have been developed for the effective cultivation, farm operation, harvesting, grading, packaging and value addition. In the same way we can quote some of the targets set by our Prime Minister Mr Narendra Modi, who has addressed to the nation for raising farms productivity and for adopting agricultural technology recently. He has given priority for the adoption of new technology which would reach at farmer to cater overall agricultural development. He has also recommended "Lab to land" which is the biggest challenge for the country like India. He addressed that the progressive farmers are our real talent. The main task of various research and agricultural institutes, is to train farmers through radio and other electronic multi media for the knowledge and actual benefits. It is essential on the part of both government and private sector to bring accelerated growth in the farm sector with expenditure, equipment and efficiency.

Institutional Reforms

In the post-independence period, the agriculture reform was introduced for the abolition of zamindari system, consolidation of land holding, crop insurance schemes etc. However there is found dynamic changes in the institutional reforms of agriculture in a recent era of development. The land development programme was for the first time introduced in the year 1980s. It introduced crop insurance against drought, flood and crop disease. Gramin banks and other cooperative societies were formed to give financial assistance in the form of loans. The main objective was to give agricultural loans at a cheaper rate of interest. Kishan credit card was developed with the combined effort of NABARD and RBI with the availing credit of Rs. 50,000/-. Similarly after that the PDS, FCI, MSP schemes and programmes were introduced to give financial assistance and food grains to poor and land less farmers at a subsidised rate. In case of fertilization, biotechnology products like bio-fertilizer and bio-pesticide are produced from renewable energy sources in a cheaper and environment friendly way. Bio-fertilizers are very important source for enhancing the nutrient supplies for plants by virtue of fixing atmospheric nitrogen and maintaining soil nutrients. Those initiatives have been taken as the key component of the Integrated Plant Nutrient System (IPNS), (Lab to land project, North Maharashtra University). In the recent budgetary announcement priority given for the agricultural upliftment. The allocation of Rs5,300 crore was made to support micro-irrigation, watershed development and the Pradhan Mantri Krishi Sinchai Yojana. In order to support the agriculture sector with the help of effective agriculture credit, the focus has been given on small and marginal farmers. The special target has been made by the Government has been set up for Rs8.5 lakh crore of agricultural credit. The proposal has been made for an allocation of Rs34,699 crore for the success of schemes like MNREGA.

POLICY RECOMMENDATIONS FOR AGRICULTURE DEVELOPMENT AND ITS FUTURE PROSPECTS

India is traditionally known as the agrarian country as more than 60% people depend on the agriculture both directly and indirectly for their livelihood. So far the key challenges and priorities are concerned, Indian Agriculture can attain the global standard if we can have proper coordination between policy frame work and its implementation. We can have following policy recommendation, those can go a long way for catering accelerated agricultural growth.

Innovative And Sustainable Farming

Various innovative farming have been set up to meet the challenges of food shortage, natural hazards and poverty in India. The organic farming has grown almost 29 fold during the last five years and have successfully met the challenges. It has created the options for debt free, quality based profitable livelihood. With the theme of consumer-centric and new market controlled agricultural system, it has grown 25-30% every year. Similarly greenhouse technology of farming has enhanced farm productivity by 3-4 times ahead of normal farming pattern. In the same way poly house farming has raised the agriculture output at about 10 times higher than the previous time due to cost efficiency, absence of insecticides and pesticides and with temperature controlled atmosphere. These success stories of different innovative farming pattern can enhance agriculture productivity with the government and various institutional support. In order to face the climatic challenges, India has organized a document namely the National Action Plan (NAP) on Climate Change. It provides a direction for changes at the national level in policy, planning and public-private partnerships. It has open up the global vision for modifying longer time trends for sustainable development.

Infrastructure Development

MNREGA, RGGVY, REDB, IAY, DRDAs are some of the government based initiatives to bring infrastructural development in the villages of India. It is essential on the part of the government to consolidate various schemes as per the requirements for which there will be ideal utilization of fund and control of corrupt practices in various layers. The impact of rural infrastructure has

greater role to play for the eradication of poverty as per the millennium development goals (1990-2015). The rural infrastructure development fund (RIDFs) has provided the implementation support by NABARD up to the extent of 90% of total support and budgetary support by the remaining portion of the cost.

Technological Advancements

As per the department of Science and technology, government of India, grant is given to twenty one science based voluntary groups working at the village level. This will encourage research and development activities in areas of technology generation and transfer for sustainable livelihoods in rural areas. It has also encouraged thematic networking and coordination amongst various science and technology based field groups. National Food Security Mission (NFSM) has been launched in 2007 to increase 20 million tonnes of foodgrains (10 m.t. for rice, 8 m.t. for wheat and 2 m.t. for pulses) during the 11th plan period. It has already shown some results by increasing yields in different regions. The ATMA (Agricultural Technology Management Agency) scheme was launched in 2005 to support state governments' efforts to revitalize the extension. This scheme gives an opportunity to improve extension system. The returns to investment on research and extension will be much higher on agricultural growth as compared to other investments.

Private Sector Interference

In recent years the priority has been given for public private partnership (PPP) for the infrastructure development and other growth related services. About I lakh common services centres have been established with the sustainable, commercial and socio-economic goals to cater IT based and non-IT based services for about 600,000 villages. Different SHGs, Community based organisations, Private micro finance institutions like SKS, have been formed to give financial assistance to rural community for developmental projects. With the Provision of urban amenities in rural areas (PURA), there is found the opportunities of rural livelihood, infrastructure projects with the private sector interference. It in turn has given sufficient scope for sectoral disparities.

Effective Price Mechanism And Financial Support

As per Dr M.S. Swami Nathan, the distinguished agricultural economist, said, "The agrarian crisis has its roots in the collapse of the rural economy... Unemployment leading to out-migration of the asset-less is growing. The minimum support price mechanism is not operating for most commodities. At every level of the livelihood security system, there is a tendency to make profit out of poverty. Something is terribly wrong in the countryside." Although there have been some improvements in flow of farm credit in recent years. For this the government has to take care of share for the small and marginal farmers by providing Minimum support Price (MSP), easy credit accessibility, investment on cold storage, and support for raising Hi- value products like milk, meat, Vegetables and fruits. Similarly all the credit and loan provision has to be made for the growth of allied activities like animal husbandry, fishery, horticulture, herbal cultivation.

Improved Trade Policy

India is considered as the second largest food producer in the world. Although, it has got all the potentials in the agriculture productivity but its export is just 0-9% of the world food trade. However with the prime minister's council on trade and industry report, following action plans have been suggested for enhancing trade, and supply of agricultural goods.

- Undiluted focus on growing areas for exports like tea, spices, rice, mangoes, grapes, floriculture etc.
- Allow regulated exports of specific surplus commodities on annual basis and honour international contractual terms.

- Cold storage facilities should be enhanced and be made available at all ports and airports
- Increase in freight subsidy
- One central agency: Agro and Food Development and Export Promotion Council to be set up.
- Announce specific package for horticulture and floriculture units.
- Provide term loans for Grading, Packing and Cold chain units as well as processing units at the rate of 9% per annum.
- 3 year moratorium on repayment of term loan and interest
- NABARD to provide 100% refinance to banks and financial institutions for funding exports of horticulture products.

CONCLUSION

We have gone through the current structural, institutional and technological reforms for the overall growth of the economy. It is necessary on the part of the government to give due priorities to key segments like marketing, price mechanism, technology, R &D and trade. Similarly it has been observed with the support of the government and private interference the goal of sustainable agricultural growth can be attained. At the same time priorities must be given to enhance the overall standard of living of the rural poor so that it would go a long way for eliminating socio-economic constraints like poverty, hunger and malnutrition. This would be an appropriate way for giving the true justice to our father of nation, Mr M K Gandhi's intent for the villages, "the true India is not to be found in its few cities but in its seven hundred thousand villages, if the villages perish, India will perish too".

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