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Impact On Indian Agricultural Growth Under The New Economic Management

Yuvaraj .V
MBA, Department of Management Studies
Bharath Institute of Science and Technology,
Selaiyur, Chennai, Tamil Nadu 600 073
Bharath Institute of Higher Education and Research

Abstract
In the last two decades Indian agriculture sector has been facing major challenges like deceleration in growth rate, inter-sectoral and inter-regional equity, declining input efficiency, degradation of natural resources, etc. with consequent and adverse effects on food and nutritional security, food inflation and poverty reduction. In the span of 11th five year Plan had some remarkable success in reversing and the deceleration of agricultural growth witnessed during the 9th and 10th Plan but food inflation stands as a major concern. The growth in agriculture sector during the 11th Five Year Plan is likely to be around 3.2 percent per year, which is higher than 10th Plan growth rate but lower than the target (4.0%) for 11th Plan. The 12th Plan growth target for the agriculture sector was set as 4 percent with food grains growth at about 2 percent and non-food grains sector growth about 5-6 percent. However, looking at the growth in agriculture sector in general and high-value agriculture, particularly, horticulture, fisheries, dairy and meat sector during the 11th Plan, there is a need to put additional efforts to reach the 4 percent growth in agriculture. The failure to achieve targeted growth in agriculture was a result of due to the inadequacies of the provision of the critical public goods such as research and development, extension services, surface irrigation, rural infrastructure, etc. on which agricultural growth thrives as well as inappropriate policies. In order to achieve the targeted growth in 12th Plan, we need to address some of these inadequacies. The agricultural sector requires substantial raise in investment in both the public and the private sector in agricultural research and development including extension, rural infrastructure, post-harvest and market infrastructure including storage and processing of agricultural products, reforms in laws related to land markets and marketing of agricultural products, and appropriate price policy. The cost of agricultural inputs such as irrigation, electricity for pumping water, fertilizer, etc. needs to be rationalized. The distribution aspects of the agricultural credit including the inter-regional and the inter-class inequalities in access to the credit, decline in rural branches, and declining share of direct credit, etc. must to be addressed. People's participation, which will help in promoting the bottom up of the approach in planning process and also help in the greater and faster diffusion of the technologies and to the best practices among farmers, community based on which actions and participation of disadvantaged sections of the society in developmental process, needs to be strengthened and enlightened.

Introduction
For decades agriculture sector remains as the mainstay of the Indian economy, contributing about 19 per cent of national Gross Domestic Product (GDP) and more importantly, major proportion of India's population is wholly or significantly dependent on agriculture and its allied activities for their livelihood (GOI, 2011). The contribution of agricultural sector to GDP has remained to decline over the years, compared to that of other sectors, particularly services, which has increased.

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In 1970-71 agriculture contributed about 44 percent of GDP, which declined to 31.4 percent and 14.6 percent in 1990- 91 and 2009-10 (at 2004-05 prices), respectively (CSO, 2011). Nevertheless, agriculture remains a major source of employment, absorbing about 52 percent of the total national work-force in 2004-05, down from about 70 percent in 1971. The share of agricultural exports in total export value declined from about 18.5 percent in 1990-91 to about 10.6 percent in 2009-10, while share of agricultural imports to total national imports increased from 2.8 percent in 1990-91 and reached a high of 8.2 percent in 1998-99 and declined to about 4.4 percent in 2009-10 (GoI, 2011a). Importance of agriculture in a country like India is not likely to decline due to concerns for food security, employment, rural poverty and availability of wage goods.

Successive Five Year Plans have made continuously stressed on self-sufficiency and self-reliance of food grains production and concerted efforts in the dimension have resulted in substantial increase in agricultural production and productivity. This is clear from the fact that a level of about 52 million tonnes in 1951-52, food grains production rose to above 241.5 million tonnes (4^{th} advance estimates) in 2010-11 (GoI, 2011b). Since the early 1990s, liberalization and globalization have become core elements of developmental strategies of the government, which had indirect policy implications and impact on Indian agriculture.

Being a part of economic reforms agricultural markets were freed, external trade in agricultural products were made liberalized and industry had to de-protect to create more competition thereby reducing input prices and making terms of trade favourable to agriculture. "These measures would create a technically more profitable agricultural produce and productivity, which would be able to bear the economic costs of technological modernization and expansion".

The economic reforms of the government have improved terms of trade in favour of agricultural but growth in agricultural sector had fallen short of targets and has been well below that of non-agricultural sectors and the gap among the rural and urban population income gets widened. Productivity gains from the Green Revolution technology have reached a platue in many regions, causing per capita food grains production to decline, which has serious implications for food and nutritional security, poverty alleviation, rural development, farm incomes and rural-urban equity. One of the important strategy challenges for faster, sustainable and more inclusive growth (9.0-9.5% growth rate) in the 12th Five Year Plan under structural changes and unfavorable global economic environment needs a remarkable accelerated growth (4.0 to 4.5% growth rate) in agriculture produce and productivity.

Agricultural growth has always been an dominant and important variable for the inclusiveness, the recent experience prefer that high GDP growth without high agricultural growth is likely to lead to acceleration in inflation of the food grains in the country, which would adversely reflect on the larger growth process (GOI, 2011). The Eleventh Plan, made an attempt to reverse deceleration of agricultural growth during the Ninth and Tenth Plan, had some notable improvements in the attempt as food grains production has touched a new peak of 241.56 million tonnes in 2010-11 and growth in agriculture in the Eleventh Plan is likely to be about 3.3 percent per year. To achieve between 4 and 4.5 percent average growth in agricultural sector in the Twelfth Plan period adequate efforts on the part of the government are required. In view of importance of these issues, critical examination of recent trends in agriculture and the components underlying the sluggish growth in agriculture is important to reorient programmes and policies in the 12th Plan.

High-value agricultural growth patterns: some concerns

For the past three decades the role and importance of food grains has declined. The share of food grains in total value of output from agriculture and allied sectors (excluding forestry and logging)

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has fallen from 31.3 per cent (at 1999-00 prices) in TE 1983-84 to 26 percent in TE 2003-04 and reached a level of 24.7 percent in TE 2007-08 (Table 1). The fall in the share was more pronounced in case of cereals, where it got declined from 26.6 percent in TE 1993-94 to 21.7 percent in TE 2007-08, whereas the share on the pulses reduced from 4 percent to 3 percent during the same period. Due to shift in demand pattern towards high value crops, the farmers are also responding to market signals and gradually shifting production-mix to meet the growing demand for high value commodities. This had a impact on the share of high value crops in total value of output from agriculture sector. There was a clear shift of produce from food grains towards fruits and vegetables, livestock products and fisheries. The share of high-value commodities/products (fruits and vegetables, livestock products, fisheries) increased from 37.3 percent in TE 1983-84 to 41.3 percent in TE 1993.94 and reached a level of 47.4 percent in TE 2007-08.

Table:1
Dynamics of Indian Agriculture: Changing Shares of Major Crop Groups

Items	Share In Value Of Output From Agriculture (%)				Compound Annual Growth Rate (%)		
	TE 1983-84	TE 1993-94	TE 2003-04	TE 2007-08	1980s	1990s	2000s
Food grains	31.3	30.6	26.0	24.7	3.0	1.8	2.4
Cereals	26.3	26.6	22.7	21.7	3.2	2.0	2.5
Pulses	5.0	4.0	3.3	3.0	1.7	0.5	2.2
Oilseeds	5.3	6.7	5.2	5.8	5.6	0.4	6.4
Fruits & vegetables	14.1	13.6	16.7	16.9	2.2	6.3	3.5
Livestock Milk	20.6 12.7	23.9 15.4	25.9 17.4	26.1 17.4	4.6 5.2	3.7 4.3	3.8 3.6
Meat	3.4	4.4	4.5	4.5	5.2	2.6	3.9
Fisheries	2.7	3.9	4.6	4.4	6.0	4.7	2.9
Fibers	3.0	2.9	2.2	3.6	2.6	0.4	17.2
Condiments & spices	2.3	2.6	3.2	3.1	4.7	5.0	3.5
Crop sector	76.7	72.3	69.5	69.5	2.5	3.0	3.5
High value Agri.	37.3	41.3	47.2	47.4	3.9	4.6	3.6
Agri. & allied Sectors	100.0	100.0	100.0	100.0	3.0	3.2	3.5

Source: CSO (2010)

The importance of livestock products had increased, the share of livestock in the total value of agricultural output which has increased from 20.6 per cent in TE 1983-84 to 23.9 percent in TE 1993-94 and 26.1 percent in TE 2007-08. Among the livestock products, contribution of milk which has increased at a faster rate, from 12.7 percent in TE 1983-84 to 17.4 percent in TE 2007-08 compared with meat (from 3.4% to 4.5%). The share of fisheries has also increased from 2.7 percent in TE 1983-84 to 4.6 percent in TE 2003-04 but marginally declined to 4.4 percent in TE 2007-08.

India is one of the major producers of fruits and vegetables with an estimated production of 188.7 million tonnes (64.3 million tonnes of fruits and 124.2 million tonnes of vegetables) in TE 2008-09. The share of fruits and vegetables in the total value of agricultural output increased from 14.1 per cent in TE 1983-84 to 15.4 per cent TE 1993-94 and 16.9 percent in TE 2007-08. This has happened largely by the cause of increase in the area and the marginal developments in the production and productivity of the fruits and vegetables. The raise in the share of the high valued crops to the total value of output from agriculture was curbed down between TE 1983-84 and 1993-94 and acceleration was found in during the post reforms period. Trends in the growth rates

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in the value of output from agriculture and to allied sectors are given in Table 1 provide interesting insights. During the eighties, fisheries witnessed the highest growth (6%) followed by oilseeds (5.6%), condiments and spices (4.7%) and livestock (4.6%). The crop sector grew at a lower rate of 2.5 percent, cereals recorded 3.2 percent growth, and pulses grew at 1.7 percent, lowest among all crops/sub-sectors. However, during the nineties almost all crops groups/sub-sectors except fruits and vegetables and condiments and spices, experienced deceleration in growth rates. Output of fruits and vegetables increased at much faster rate (6.3%) during the nineties compared to growth rate (2.2%) in the 1980s as well as other crop groups/sub-sectors. During the 1990s, condiments and spices also witnessed acceleration in rate of growth in output. The livestock sector grew at an annual compound growth rate of 3.7 percent (milk 4.3% and meat 2.6%) compared with 4.6 percent in the eighties. However, during the 2000s performance of crop sector improved and growth rate increased from 1.8 percent in 1990s to 2.4 percent in 2000s. Growth rate in fibers was the highest (17.2%), mainly because of BT cotton effect, followed by oilseeds (6.4%). Food grains output increased by about 2.4 percent while rate of growth in livestock sector was almost same (3.8%) as during the 1990s. There was slow-down in growth of fisheries (2.9% in 2000s compared with 4.7% in 1990s), milk output (3.6%) and condiments and spices (3.5%). Growth rate of fruits and vegetables was also lower (3.5%) in the 2000s compared to growth rate (6.3%) in the 1990s. It is evident form the above analysis that high growth of high-value agriculture achieved during the 1990s could not be maintained in the 2000s mainly because of slowdown in growth of fruits and vegetables and fisheries sector. However, the crop sector grew at about 3.5 percent during the 2000s because of better performance of fibers, cereals, pulses and oilseeds in the recent years.

As per the Draft Approach Paper of the Twelfth Five Year Plan and annual output growth rate of about 1.8 to 2 percent is envisaged for cereals with rice output likely to grow around 2

Percent, pulses output has to be stepped up to achieve about 2 percent growth rate in food grains output (Govt. of India 2011). However, high-value agriculture segments, and horticulture and animal husbandry are being targeted to grow at 4.5 to 6 percent. Oilseeds sector should grow at over 3 percent. Overall, it would give an output growth of between 4 and 4.5 percent in the agricultural sector. In order to meet these targets, efforts are required to increase productivity of all crops in general and but pulses, fruits and vegetables, livestock particularly dairy sector and fisheries sector in particular, which have witnessed deceleration in output growth during the last decade.

Conclusion

However, the mounting burden of the subsidies compelled by the policy planners to make a serious attempt to refrain and reform agricultural fertilizer price policy and to rationalize the fertilizers subsidy. Part of economic reforms initiated in the early-90s, the government decontrolled on the import of complex fertilizers like di-ammonium phosphate (DAP) and muriate of potash (MOP) in 1992, and extended a flat-rate concession on these fertilizers. But, urea imports continued to be restricted and canalized. Subsequently, several important committees including High Powered Fertilizer Pricing Policy Review Committee (HPC), Expenditure Reforms Commission (ERC), a New Pricing Scheme (NPS), Expert Group on P and K fertilizers, etc. were constituted to reform Indian fertilizer sector and contain and target fertilizer subsidies.

The estimates of fertilizer subsidy provided by the Central government budgets over the years in the post-reforms era show that fertilizer subsidy have increased significantly. Figure 1 presents the estimates of major subsidies including the food and fertilizer subsidies in the post-reforms period (1991-92 to 2010-11). It is evident from the figure that total subsidies have increased from Rs.

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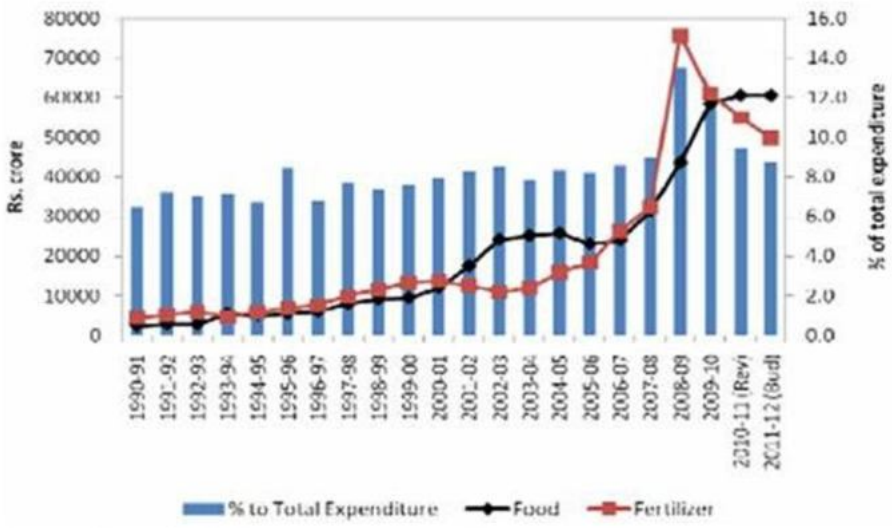
12,158 crores in 1990-91 to Rs. 1641533 crores in 2010-11, an increase by 13.5 times. The fertilizer subsidy has increased from Rs. 4389 crores in 1990-91 to Rs. 75,849 crores in 2008-09 representing an increase of over 17 times and then declined during 2009-10 (Rs. 61624.29 crores) and 2010-11 (Rs. 54876.68 crores). As a percentage of GDP from agriculture and allied sectors, this represents an increase from 4.5 percent in 1990-91 to 12.9 percent in 2008-09 and then marginal decline to 11 percent in 2009-10 and 8.3 percent in 2010-11 (Figure 1).

Figure 1: Trends in Food and Fertilizer Subsidies in India in Post-reform period



Source: Govt. of India Annual survey report-2011

The fertilizer subsidy in India as percentage of the GDP from agriculture varied from 2 percent in 1993-94 to 8.2 percent in 2008-09. The total food subsidy has jumped to about Rs. 60600 crores in 2008-09 from 2450 crores in 1990-91, about 24.7 fold increase in less than two decades in absolute terms. But if one looks at the percentage of GDP, then the burden of food subsidies in India is much less than that of many other developing countries. The food subsidy in India as percentage of the GDP has varied from 1.6 percent in 1990-91 to 5.4 in 2009-10, and on an average remained at about 3 percent over the last 19 years.

The above analysis proves the volume of subsidies have increased remarkably and substantially from the post reforms period. The rate of increase, however, was higher for food subsidy (compound annual growth rate of 17.1% per year) than for fertilizer (13.8%). The rate of change in the amount of subsidies was uneven over time. Total subsidies and fertilizer subsidy have increased at a much faster rate during the 2000s while growth rate in food subsidies were higher (16.6%) during the 1990s as compared to with 2000s (13.4%). During the 2000s, fertilizer subsidy growth has increased significantly (25.2%) it is as against 13.6 percent during the 1990s, because of international prices of fertilizers and raw materials, feed stocks and intermediates increased substantially and yet fertilizer farm gate prices remained constant in the country between 1991 and 2001 and 2002 and 2009. The main reasons found for ever increasing food subsidies are:

- Significant increase in procurement prices of food grains,
- Increased government procurement and storage costs; and
- No increase in issue price of food grains provided through public distribution system during the last decade.

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Therefore, rising subsidies on input, moderate and gradual increase in prices of inputs is necessary to curtail the burden on fiscal and more importantly, for inducing farmers to use these inputs more efficiently. Full decontrol on fertilizer prices will lead to very high increase in prices and adversely affect farm incomes and agricultural production, that fertilizer subsidy is more equitably distributed among farm sizes and small and marginal farmers have a larger share in fertilizer subsidy in comparison to their share in cultivated area.

The benefits of fertilizer subsidy have spread to un-irrigated areas as the share of area treated with fertilizers has increased and the share of un-irrigated areas in total fertilizer use has also increased. A reduction in subsidy on the fertilizers are therefore likely to have an adverse impact on farm production and income of small and marginal farmers and un-irrigated areas as they do not benefit from higher output prices but do benefit from lower input prices. Therefore, it is a must to contain and continue fertilizer subsidies but it should not affect production and productivity of small and marginal farmers, who might cut down use of fertilizers if prices increase significantly.

References

1. Ahluwalia, Montek S (2011), "Prospects and Policy Challenges in the Twelfth Plan", Economic and Political Weekly, Vol. XLVI, No. 21, May 21, 2011, pp: 88-104.
2. Bardhan, P K (1973): "Size Productivity and Returns to Scale: An Analysis of Farm-level Data in Indian Agriculture", Journal of Political Economy, Vol 81(6): 1370-86.
3. Berry, R A (1972): "Farm Size Distribution, Income Distribution and the Efficiency of Agricultural Production: Colombia", American Economic Review, Vol 62(1): 403-08.
4. Challa, J., P. K. Joshi and Prabhakar Tamboli (2011), "Revitalizing Higher Agricultural Education in India: Issues and Challenges" Economic and Political Weekly, Vol. 46, Nos. 26 and 27, June 25, pp.
5. Chand, Ramesh, P A Lakshmi Prasanna and Aruna Singh (2011), "Farm Size and Productivity: Understanding the Strengths of Smallholders and Improving Their Livelihoods",
6. Economic and Political Weekly, Vol. XLVI, No. 26 & 27, June 25, pp: 5-11.
7. Chand, Ramesh, Praduman Kumar and Sant Kumar (2011), "Total Factor Productivity and Contribution of Research Investment to Agricultural Growth in India", Policy Paper 25, National Centre for Agricultural Economics and Policy Research, New Delhi, xiii+74p.