

Indian Agriculture before and after Economic Reforms- An Overview

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Abstract: Agriculture once known as the backbone of Indian Economy is at present at its worst, thanks to the anti-farmer, pro-Industry policy of the various Indian Governments since 1991. India is once considered as the "Ann Data" of the entire world is struggling even to manage the own demand-supply problem of various agricultural commodities. The farmers are committing suicides, are celebrating "Crop Holidays" and are fighting with Govt. for illegal acquisition of land for developing Real estate or other commercially viable projects at the cost of Agriculture. The aim of this paper is to bring out the present scenario in the field of agriculture that leads to the minimum contribution of Agriculture in the Indian GDP, once the main contributor. This paper will discuss the various issues like less technical support to farmers, poor quality seeds, inappropriate storage, Minimum Support Price, irrigation, the problem of credit availability and above all the impact of Liberalization, Globalization and Privatization on the Indian Agriculture Sector. The issues related to the WTO and their impact on Indian Agriculture and the consequences of various treaties of WTO on Indian Agriculture sector will be discussed

Key words: Economic reforms, Crop Holidays, LPG, Structural Changes, Agriculture.

Introduction: India is one of the ancient civilizations in the world. Rivers have been of fundamental importance throughout the history. Early humans wandered from place to place in search of food and water. The river banks have attracted settlers 32 from ancient times. After some time, they realized that settling near river banks gave them easy access to water. When they noticed plants, they observed that these plants produced seeds which could be eaten. In order to grow plants on their own, early humans collected these seeds and spread them near river banks. These seeds turned into plants.

Nomads started digging the soil using stone tools to plough the land. This was the beginning of agriculture. These settlements have now become big cities. Thus India is an agro- based country. About half of the population practice agriculture on 60 per cent of land. It earns about 15 per cent of our national income. It is also the principal source of livelihood in rural area. The climate conditions, the existence of huge plains and the fertility of soils make agriculture a profitable business in our country. It has achieved multi faceted socio-economic progress after economic reforms. It has moved forward displaying remarkable progress in the field of agriculture and overall economic development.

Before economic reforms India was facing hazardous economic problems and political imbalances. To overcome the critical situation Dr. Manmohan Singh drafted a new economic policy in June 1991. This new economic policy is the result of international, social and economic changes. In 1991 India's foreign exchange reserve balance was only 2.2 billion dollars. Inflation rate was near about 14 per cent. Fiscal deficit of GDP was 8.4 per cent and current account deficit was 9.9 billion dollars. This complicated situation turned into smooth functioning economy through New Economic Policy (NEP). So New Economic Policy is a compulsory product of the management of economic crisis. The achievement of New Economic Policy was that the inflation rate

was decreased 33 from 13.6 per cent in 1991-92 to 6.5 per cent in 1992-93. And fiscal deficit was decreased by 4.9 per cent in same year.

Agriculture, basic industries, infrastructure, energy education are some of the important factors for the economic growth of the Indian Economy. Structural changes help Indian economy to develop fast. Economic reforms include liberalization, privatization and globalization. Liberalization indicates noninterference of the government. Globalization shows the free trade policy. It means to remove the obstacle between two countries. According to World Bank globalization means: 1) Remove the tariff of all goods including consumption goods. 2) Decrease the rate of import duties and 3) the privatization of public sector. India is a developing country and has mixed economy. It consists of two sectors namely public sector and private sector. According to Adam Smith, 'Privatization is must.' written in his book The Age of Discontinuity in 1969. Now it is proved that India is the follower of Adam Smith's thoughts.

Purpose of the Study: Indian economy has also undergone structural changes during the plan period (since 1950) and the economy has now put itself on the high growth path. Structural changes of the economy are manifest in the spheres of agriculture, industries and services (Pal 1988). Earlier studies include Hazari (1970) and Pal (1981, 1988) for the overall economy, Mukhopadhaya and Chakraborty (1999) for the energy sector and Bhowmik, (2004) for the service sector. But no such study has yet been performed for India's agriculture sector during the period of ongoing reforms. The present study attempts to examine the changing relative importance of agriculture during 25 years of economic reforms. More specifically, the changing significance (importance) of agriculture during the period of ongoing reforms is evaluated in terms of macro level significance.

Economic Reforms Process: Since July, 1991 the country has taken a series of measures to structure the economy and improve the balance of payments position. The New Economic Policy (NEP-1991) introduced changes in the areas of trade policies, monetary & financial policies, fiscal & budgetary policies, and pricing & institutional reforms. The salient features of NEP-1991 are (i) liberalization (internal and external), (ii) extending privatization, (iii) redirecting scarce Public Sector Resources to Areas where the private sector is unlikely to enter, (iv) globalization of economy, and (v) market friendly state. Research reports reveal that this macro-economic adjustment programme is remarkable for its relatively painless transition compared with similar programmes elsewhere and a large part of the credit for absorption of these shocks is due to the steady increase in agricultural production. The GATT Agreement signed in 1995 will fundamentally change the global trade picture in agricultural sector.

Impact of Economic Reforms Process on Indian Agricultural Sector: Agricultural sector is the mainstay of the rural Indian economy around which socio-economic privileges and deprivations revolve, and any change in its structure is likely to have a corresponding impact on the existing pattern of social equality. No strategy of economic reform can succeed without sustained and broad based agricultural development, which is critical for

- Raising living standards,
- Alleviating poverty,
- Assuring food security,
- Generating buoyant market for expansion of industry and services, and
- Making substantial contribution to the national economic growth.

Studies also show that the economic liberalization and reforms process have impacted on agricultural and rural sectors very much. According to (Bhalla97), of the three sectors of economy in India, the tertiary sector has diversified the fastest, the secondary sector the second fastest, while the primary sector, taken as whole, has scarcely diversified at all. Since agriculture continues to be a tradable sector, this economic liberalization and reform policy has far reaching effects on (i) agricultural exports and imports, (ii) investment in new technologies and on rural infrastructure (iii) patterns of agricultural growth, (iv) agriculture income and employment, (v) agricultural prices and (vi) food security (Bhalla93).

Reduction in Commercial Bank credit to agriculture, in lieu of this reforms process and recommendations of Khusrao Committee and Narasingham Committee, might lead to a fall in farm investment and impaired agricultural growth [Panda96]. Infrastructure development requires public expenditure which is getting affected due to the new policies of fiscal compression. Liberalization of agriculture and open market operations will enhance competition in “resource use” and “marketing of agricultural production”, which will force the small and marginal farmers (who constitute 76.3% of total farmers) to resort to “distress sale” and seek for off-farm employment for supplementing income.

Marginalization of Small farmers: A central issue in Agricultural Development is the necessity to increase productivity, employment, and income of poor segments of the agricultural population. Among the rural poor, the small farmers constitute a sizeable portion in the developing countries. Studies by FAO have shown that small farms constitute between 60-70% of total farms in developing countries and contribute around 30-35% to total agricultural output (Randhawa&Sundaram90). Liberalization era (1990-91) began in India when over 40% of rural households were landless or near landless, and over 96% of the owned holdings and 68.53% (over 2/3rd) of owned land belonged to the size groups (marginal, small and semi-medium). The decade of 1981-82 to 1991-92 seems to have witnessed a marked intensification of the marginalization process – the percentage of small owners increased from 14.70% to 21.75%.

Small farmers emerged as the size group with the largest share of 33.97% in the total land, which is just doubled during this decade. As regards the Large Farmers, they were 1 % of the total owners in 1990-91 but owned nearly 13.83% of the total land. An interesting, but speculative, inference is that the changing position of the large owners represents the other side of the marginalization process, i.e., the presence, and possibly growing strength, of a small but dominant and influential group in agriculture. Analytical reports reveal that marginalization process could gather further momentum in the years ahead to become an explosive source of economic and political turbulence, due to the features of prevailing policy-cum-market environment in the country.

Trend towards a greater casualisation (erratic and low-paid work) of the workforce that was witnessed in the 1980s appears to have continued in the 1990s. Low productivity and inability to absorb the growing labour force make the agricultural sector in India witness to a pervasive process of marginalization of rural people. This process is likely to get intensified in the coming years, raising formidable problems in achieving sustained development of rural areas and rural people (VMRao&Hanumappa99). Information Technology, Genetic Engineering and Bio-Technology, which are the “drivers” of globalization with their complementarities of

liberalization, privatization and tighter Intellectual Properties Rights, are bound to create new risks of marginalization and vulnerability. Information Technology is able to produce a penetrating and clinical mapping of the land, encompassing the physical, chemical and biological features, and groundwater resources, and forecast of climatic conditions in a focused manner, that even small geographical segments – the small farms – can be benefited through the guidance provided by the ways in which natural and human resources can be optimally combined with appropriate technologies, inputs and options to enhance and diversify agricultural production (KVS2K). Information Technology will facilitate dissemination of information on development, education, extension, husbandry, marketing, production, and research, to agricultural farmers.

Indian Agricultural Sector:The Indian Agricultural sector provides employment to about 65% of the labour force, accounts for 27% of GDP, contributes 21% of total exports, and raw materials to several industries. The Livestock sector contributes an estimated 8.4 % to the country GDP and 35.85 % of the agricultural output. India is the seventh largest producer of fish in the world and ranks second in the production of inland fish. Fish production has increased from 0.75 million tons in 1950-51 to 5.14 million tons in 1996-97, a cumulative growth rate of 4.2% per annum, which has been the fastest of any item in the food sector, except potatoes, eggs and poultry meat. The future growth in agriculture must come from (GBSingh2K)viz.

- New technologies which are not only “cost effective” but also “in conformity” with natural climatic regime of the country;
- Technologies relevant to rain-fed areas specifically;
- Continued genetic improvements for better seeds and yields;
- Data improvements for better research, better results, and sustainable planning;
- Bridging the gap between knowledge and practice; and
- Judicious land use resource surveys, efficient management practices and sustainable use of natural resources.

IXPlan Strategy on Agricultural Development:The agricultural development strategy for the Ninth Five Year Plan is essentially based on the policy on food security announced by the Government, to double the food production and make India hunger free in ten years. The Strategy to ensure food security is as follows:

- Doubling food production
- Increase in employment & incomes
- Supplementary/sustained employment and creation of rural infrastructure through Poverty Alleviation Programmes (PAP)
- Distribution of food grains to the people Below Poverty Line (BPL)

As the Information Technology facilitates:

- Data support for better research, better results, and sustainable planning;
- Bridging the gap between knowledge and practice; and
- Judicious land use resource surveys, efficient management practices and sustainable use of natural resources,

It is required to develop “agricultural resources information system” using geometrics technology with public funding to reduce the process of marginalization of small farmers and risks such as variation in output prices, etc., in India. This will facilitate to evolve “small farmer development strategy” making full use of frontier

technologies (information technology and bio-technology) and ensuring the linkages between research, technology, and production on one hand, and effectiveness of the delivery system and extension network to carry the benefits of S&T to the farmers on the other (KVS2K).

In view of the increasing importance of Information Technology and Bio-Technology, the small farmers are compelled to

- Adapt their operations viz., group cooperation in the areas of land & water management, integrated pest management, integrated nutrient supply, and improved post-harvest technology;
- Organize themselves into “poly-centric” groups (to maintain and manage beneficiary programmes, planning, and evaluation), to achieve self sufficiency and an export surplus in farm production, and, in extreme cases,
- Resort to pooling of their lands into viable large “farming estates”, avail of all latest technologies and compete in the global markets.

Key agricultural developments in the 11th Five Year Plan: The 11th Five Year Plan (2007–12) emphasized ‘Inclusive growth’ to achieve a target growth of 4 per cent per annum in GDP from agriculture and allied services. Globally, studies indicate that a higher GDP in agriculture is more effective in alleviating poverty in comparison with higher GDP in other sectors. To achieve ‘Inclusive growth’, the 11th plan aimed at the following:

- Improving accessibility of technology to farmers to increase production and ensure optimum use of natural resources
- Attracting higher public investments and ensuring efficacy of such investments Promoting diversification for higher value crops and livestock
- Addressing issues pertaining to food security
- Decentralizing decision making to come up with customized solutions to specific local problems and to improve the accessibility of land, credit, skills and scale to the poor

Based on the above strategy, the sector recorded an average annual growth rate of 3.5 per cent over FY08–11 over the growth rate of 2.1 per cent witnessed during the 10th Plan. This was slightly lower than the targeted growth rate of 4 per cent predicted in the 11th Five Year Plan. A lower growth could be attributed to drought conditions experienced in FY10 and FY11. Nonetheless, the sector witnessed slight improvement in the 11th Five Year Plan compared with the last two five year plans.

National Food Security Mission (NFSM): In 2007, the Government of India launched the National Food Security Mission (NFSM) initiative to improve the country’s overall crop production, especially that of rice, wheat and pulses. The primary objective of NFSM is to introduce technological components that include farm machines/implements as well as improved variants of seeds, soil ameliorants, plant nutrients and plant protection measures. The government aims to increase production of rice, wheat and pulses by 10 million tons, eight million tons and two million tons, respectively, by end 2012. It had allocated Rs 4,883 crore (US\$ 915.7 million) to NFSM, of which Rs 3,381 crore (US\$ 634 million) was spent until 31 March 2011. Through NFSM, 25 million tonnes of additional food grain was produced in the 11th Five Year Plan.

The following are the major achievements of the initiative:

- Implemented in about 312 districts, spread across 17 states
- Wheat production increased from 71.3 million tons in FY07 (terminal year of 10th plan) to 80.3 million tons in FY10
- Rice production increased from 89.4 million tons in FY07 to 99.2 million tons in FY09; however, it declined to 87.6 million tons in FY10
- Pulse production increased from 13.6 million tons in FY07 to 14.7 million tons in FY10
- Different districts were able to increase the food basket of the country

RashtriyaKrishiVikasYojana (RKVY): In FY08, the government introduced RashtriyaKrishiVikasYojana (RKVY), with an outlay of Rs 25,000 crore (US\$ 4.7 billion), to encourage states to increase public investment in agriculture and allied services. The programme enables adoption of national priorities as sub schemes, thereby providing flexibility in project selection and implementation to state governments. Various sub schemes under RKVY are as follows:

- Green revolution in the Eastern region
- Combining development of 60,000 pulses villages in rain fed areas
- Encouraging the use of palm oil
- Initiative on vegetable clusters
- Nutri cereals
- National Mission for Protein Supplements initiative
- Accelerated Fodder Development Programme
- Rain fed Area Development Programme
- Saffron Mission

Policy Measures need to be done:

The crisis in agriculture is a crisis of the country as a whole and so needs urgent attention. Some of the suggestions are listed here. A revamping of the agricultural credit system – a pro-farmer approach is needed.

- Cooperative farming with coordination, particularly by small and marginal farmers needs to be revitalized.
- There is a need for periodic revision of the procurement prices for farm produce, making those remunerative.
- The issues regarding Special Economic Zones should be resolved at the earliest taking into account the genuine interests of the farmers.
- Our farmers must adopt modern practices of farming with a pinch of salt, not sailing on credentials of green revolution but implementing sustainable agriculture.
- One cannot simply sail on the credentials of green revolution. Sustainable agriculture should be the objective. Eco-friendly techniques must be adopted.
- Empowerment of farmers with social, cultural and spiritual rejuvenation is required to avoid suicidal cases.
- The balance between biological, human and physical capital growth must be maintained.

Table-1:GCF in Agriculture & Allied Activities (Rs. Crore at 2004-05 prices)

| Year | GDP | Agriculture & Allied Activities | | GCF/GDP in agriculture and allied activities | GCF in agriculture as % of GDP |
|--------------|-----------|---------------------------------|----------|--|--------------------------------|
| | | GCF | GDP | | |
| 2004-05 | 29,714,64 | 76,096 | 5,65,426 | 13.46 | 2.56 |
| 2005-06 | 32,542,16 | 86,611 | 5,94,487 | 14.57 | 2.66 |
| 2006-07 | 35,660,11 | 90,710 | 6,19,190 | 14.65 | 2.54 |
| 2007-08 | 38,989,58 | 1,05,034 | 6,55,080 | 16.03 | 2.69 |
| 2008-09 P | 41,625,09 | 1,28,659 | 6,54,118 | 19.67 | 3.09 |
| 2019-2010 QE | 44,937,43 | 1,33,377 | 6,56,975 | 20.3 | 2.97 |

Source: Central Statistics Office P: Provisional, QE-Quick Estimates

Table2: Change in Cropping Pattern from 2004-05 to 2009-10

| Type of Yield | Value of output at (2004-05 prices) in Cr. | | |
|-----------------------|--|----------|--------------|
| | 2004-05 | 2009-10 | % change |
| Cereals | 1,39,766 | 1,51,369 | 21.4 to 20.4 |
| Milk Group | 1,23,907 | 1,48,687 | 19.4 to 20.0 |
| Fruits and Vegetables | 1,13,341 | 1,44,779 | 17.8 to 19.5 |

Source: Economic Times, 12 Sept., 2011

Concluding comments: Indian agricultural has been hit hard during post WTO period (1995 – 2003). The share of agro goods in India's global export has declined during this period. During post WTO period, agricultural subsidies of developed countries have been rather increased. Therefore it is very difficult for India to face global agricultural competitiveness. In this scenario, the global agricultural trade would likely to become oligopolistic. The returns of various crops have declined due to increase in cost of production, slow growth of agricultural productivity, weak marketing mechanism, increase in input intensity and fall of water table. As a result farmers have become highly indebted and are resorting to suicides. In the near future also the total quantum of exports particularly agriculture and light manufacturing goods cannot be raised significantly in the global market in the near future because of limited and uncertain domestic export surplus and particularly their inelastic demand at world market.

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