

Impact On Indian Agriculture: Performance Of Allied Sector

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ABSTRACT

Agriculture is the backbone of Indian economy because of its high share in employment and livelihood creation. The share of agriculture in the gross domestic product has registered a steady decline yet this sector provides direct employment to more than fifty percent of total workforce in the country and a large proportion of the population depends upon agro-based industries and trade of agriculture products. It also an important source of raw material and demand for many industrial products, particularly fertilizers pesticides, agricultural implements and a variety of consumer goods contribute significantly to the exports. However, the growth of agriculture over a period of time remained lower than the growth in non-agriculture sectors. Agriculture plays a vital role in India's economy. 54.6% of the population is engaged in agriculture and allied activities (census 2011) and it contributes 17% to the country's Gross Value Added (current price 2015-16, 2011-12 series). As per the land use statistics 2013-14, the total geographical area of the country is 328.7 million hectares, of which 141.4 million hectares is the reported net sown area and 200.9 million hectares is the gross cropped area with a cropping intensity of 142%. The net sown area works out to be 43% of the total geographical area. The net irrigated area is 68.2 million hectares. Agriculture Gross Value Added (GVA).

1. OBJECTIVES

- To study the performance of agriculture and allied sector in India.
- To study the Trend and challenges of agriculture.

2. METHODOLOGY

The present study was based on the secondary sources of information and the data were collected from differential Journals, research papers, articles and from project report.

PERFORMANCE OF AGRICULTURAL AND ALLIED SECTOR

Agriculture and its allied sector play an important role in the Indian economy by contributing towards the Gross Domestic Product (GDP). The economic activities of these sectors are alike: crop sector includes growing of field crops, plantation crops, horticultural crops, drugs and narcotics and other crops. The livestock segment includes production of milk, meat, eggs, wool, drug, honey, silkworm cocoons etc.

TRENDS IN GDP ACROSS SECTOR

Agriculture and allied sector shelters livelihood to the group involved in various activities. Table (1) is presenting movement of Indian economy since Pre-green revolution till post recovery of all the sectors. Chand an

d Shinoj and DFI committee estimated the moving decimal growth rates indicate remarkable growth 2004-05 onwards for all the sub sectors. Table (1) is used as the projection for the facts and related data:

TABLE-1
MOVEMENT OF INDIAN ECONOMY: TRENDS IN GDP ACROSS SECTORS

	1960-61/ 1968-69	1968-69/ 1975-76	1968-69/ 1975-76	1988-89/ 1995-96	1995-96/ 2004-05	2004-05/ 2014-15
Average GDP at	(2004-05	(Rs				
	Prices	Billion)				
Agriculture & Allied Activities	2004	2401	3047	4116	5174	6911
Agriculture	1636	1955	2547	3473	4358	5771
Industry	725	1000	1676	2958	4773	9470
Services	1859	2517	4078	7286	13083	28991
		Share of %				
Agriculture & Allied Activities	32.20	3050	26.85	23.08	18.89	13.51
Agriculture	26.28	24.83	22.44	19.48	15.91	11.28
Industry	11.66	12.70	14.77	16.59	17.43	18.52
Services	29.86	31.98	35.94	40.86	47.77	56.69
		GDP	GROWTH	RATE		
Agriculture & Allied Activities	1.04	2.24	2.47	2.76	2.28	3.72
Agriculture	0.70	2.19	2.74	2.69	2.23	3.88
Industry	5.05	3.92	5.53	5.90	4.87	8.44
Services	5.03	3.37	5.40	6.15	7.86	8.96

Source: DFI Committee Estimates.

Table (1) reflects the trend in GDP across sector since pre-green revolution period to post reform era. The DFI committee estimates for set oral performance is initially segmented into three i.e. average GDP at 2004-05 prices, share of percentage and GDP growth rate since 1660-61. The agriculture and allied sector has contributed 13.51% to the GDP in 2014-15. Around 4% growth per year remained the pace of the agriculture and allied sector during 2004-05 to 2014-15. In this context the study of R. Chand (2014) has suggested some important views for the performance of agriculture and allied sector i.e. increase in food grain procurement, hike in MSP, increase in global price and strong domestic demand for food. Certainly as compare to remaining sector the performance agriculture is somewhat slower. Industry and service sector performed well during last two decades. During 1995-96 industry at 5.9% and service at 7.9% per year, in 2004-05 it improved respectively i.e. industry at 7.9% and service at 9.9% per annum. Moreover, the progressive performance of agriculture and allied sector witnessed slow pace, but multiplier effect of the biggest unorganized sector comprehended the economy in its way.

The growth pattern reflects that the allied sector has emerged as a promising platform to the stakeholders. The reported growth of 3.72% in 2014-15 is quite better to its previous level i.e.2.28%. The exports also grew at an impressive rate of around of 23% during the recent decade.

Trend in food grain and horticultural production: agriculture and agriculture sector continues to be the source of livelihood for the majority of Indian population; the sector contributed about 13% to the GDP of the country in 2014-15.

TABLE-2
FOOD GRAIN AND HORTICULTURE PRODUCTION IN INDIA (MILLION TONNES)

YEAR	FOOD GAINS PRODUCTION	HORTICULTURE
2004-05	198.36	166.94
2005-06	208.60	182.82
2006-07	217.28	191.81
2007-08	230.78	211.24
2008-09	234.47	214.72
2009-10	218.11	223.09
2010-11	244.50	240.53
2011-12	259.29	257.28
2012-13	257.13	268.85
2013-14	265.57	277.35
2014-15	252.02	280.99
2015-16	252.22	283.36

Source: Department of Agriculture, Cooperation & Farmers Welfare .3,4 Advance estimates.

A report of Department of agriculture, cooperation & farmers welfare estimated and projected a comparative status of the trend in food grain and horticultural production. (*4th Advance Estimate for food grain production and 3rd Advance estimate for horticulture production) table (2) represents the exhaustive trend of year 2004-05 to 2014-15. This table represents a comparative status of food grain and horticulture production; in 2004-05 the production of agriculture was 198.36 M.T. and the horticulture production was 166.94 M.T. over the years in 2014-15 the productivity pace of horticulture superseded the trend. After a decade in 2014-15 the respective production of agriculture and horticulture exchanged their place. Now the horticulture production (283.36 M.T.) is higher than agriculture (252.22 M.T.).

Value of output from agriculture and allied sector: the share of output from agriculture and allied sector of previous years, will establish the relation between agriculture and allied sector the agriculture & allied sector consists of four subsectors namely crop sector, livestock, forestry and fisheries. The share of crop sector in the total VOP from agriculture and allied activities is highest (61.31 per cent) among the other sectors as being the largest contributor.

TABLE – 3
VALUE OF OUTPUT FROM AGRICULTURE AND ALLIED SECTOR (AT 2011-12 PRICES)

ITEM /YEAR	2011-12	2012-13	2013-14	2014-15
i)Total Fruits and Vegetables	2657	2793	2862	2899
ii)Total condiments and spices	385	377	406	419
iii)Total Floriculture	174	173	180	168
iv)Total Plantation Crops	257	253	256	283
I.Total Horticulture Crops i+ii+iii+iv				
	3473	3596	3703	3769
II.All Agriculture Crops	11915	11986	12436	12179
Percentage share of output from Horticulture to total Agriculture output	29.1	30	29.8	30.9

Source: National Accounts Statistics 2016, CSO

Percentage share of output from horticulture to agriculture output is increasing over the years. The value of price of total horticulture crop was 3473 hundred crores in year 2011-12 which increased by 3769 hundred crores in 2014-15; it was 30.9% of all agriculture crops. If we see the trends the percentage share of output from horticulture to total agriculture output, it witnessed hike of around 1.5%. This also expresses the increasing demand of trend growth rate in output of various sub sectors of agriculture horticulture products.

Horticulture crops are basically non food grain crops it comprises fruits, vegetables, nuts, flowers, plantation, spices etc. two of the most price volatile crops are potato and onion. These crops captures maximum of the consumers and affects the market. “In the case of products like onion, potato, tomato and some other horticultural products; prices have shown violent rise and also sharp fall even during a short period. Onion is a highest peak of 619 in January, 2011 and 846 in September, 2013 and 782.8 in September, 2015.”fig:2 displays the value of output from agriculture and allied sector (at 2011-12 price) during 1987-88 to 2011-12

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TREND GROWTH RATE IN OUTPUT OF VARIOUS SUB SECTORS OF AGRICULTURE

The increase in agricultural output was not confined to a few segments or commodity groups or to dominant products. Rather, the growth has been experienced across the board. Within the subsectors, crop sector recorded 3.3% and fruits and vegetables recorded 5.3% annual rate of growth. Livestock output increased at 4.8% per annum while fishery sector recorded 4.5% growth rate. The rate of growth in the recent decade has been historical in most cases. Growth rate of crop sector in recent nine year (2003-04 to 2011-12) has been 75% higher than the previous decade (Table-4). The growth rate in livestock and horticulture was higher by 41% and fisheries by 48% over the preceding nine years period.

TABLE – 4
TREND GROWTH RATE IN OUTPUT OF VARIOUS SUB SECTORS OF AGRICULTURE: PER CENT

SUB-SECTOR	1987-88 TO 1995-96	1995-96 TO 2003-04	2003-04 TO 2011-12
Crop sector	2.97	1.87	3.28
Livestock	4.10	3.43	4.83
Fruits and Vegetables	4.29	3.79	5.33
Fishery sector	7.22	3.02	4.48

Source: Chand, Ramesh. Working paper 01/2014 ‘From Slowdown to fast Track: Indian Agriculture since 1995’

Performance of horticultural crops: India produced 114 M.T of fruits and vegetables in the mid 1990’s. in next 8 years production increased to 143MT. between, 2003-05 and 2011-13 production of fruits and vegetables increased to 235 MT. both vegetables as well fruit

production increased by more than 60% in 8 years after 2003-05 which is much higher than the growth in the previous period. These growth rates have taken fruit production to 77 MT. and vegetable productions to 158 MT. during 2011-13.

TABLE – 5
TREND GROWTH RATE IN PRODUCTION OF FRUITS AND VEGETABLES

CROPS	1994-95 TO 2003-04	2003-04 TO 2012-13
Fruits and vegetables	2.64	6.26
Vegetables	3.24	6.37
Fruits	1.53	6.04
Banana	0.92	7.57
Mango	0.96	4.44
Citrus	4.50	5.34
Onion	3.07	12.98
Potato	2.90	8.94

Source: Chand, Ramesh. Working paper 01/2014 'From Slowdown to fast Track: Indian Agriculture since 1995'

The increase in production of onion and potato has been remarkable. Onion production increased from 6.18 MT. in 2003-05 to 16.9 MT. in 2011-13. Production of potato, which increased by less than 2 MT. in 8 years before 2003-05 showed an increase of nearly 20 MT. in recent 8 years. The growth rates in the production of horticulture crops during the decade 1994-95 to 2003-04 to 2012-13 reveal grand success of the horticulture in the second decade (Table 5). Growth rate in fruits and vegetables accelerated from 2.64% during 1994-95 and 2003-04 to 6.26% during 2003-04 to 2012-13. Among vegetables, onion production recorded 13% annual growth while potato production increased by 8.9% per year. Among various fruits, highest growth is observed in banana, 7.57%.

Some of the important crops like maize, gram, urad, cotton, onion and potato witnessed positive and comparatively high production growth during 2004-05 to 2013-14. These noticeable achievements on the production front led to increasing commercialization of Indian agriculture. (Doubling Farmers' Income – Vol. I).

TRENDS OF INDIAN AGRICULTURE

SUSTAINABILITY OF FOOD AND AGRICULTURAL SYSTEMS

The world's population is expected to grow to almost 10 billion by 2050, boosting agricultural demand – in a scenario of modest economic growth- by some 50 percent compared to 2013. Income growth in low –and middle – income countries would hasten a dietary transition towards higher consumption of meat, fruits and vegetables, relative to that of cereals, requiring commensurate shifts in output and adding pressure on natural resources.

ECONOMIC GROWTH AND POPULATION DYNAMICS

The decline in the share of agriculture in total production and employment is taking place at different speeds and poses different challenges across regions. Although agricultural investments and technological innovations are boosting productivity, growth of yields has slowed to rates that are too low (FAO, 2016 I6644EN/1/12.16 for comfort (see Figure 1). Food losses and waste claim a significant production of agricultural output, and reducing them would

lessen the need for production increases. However, the needed acceleration in productivity growth is hampered by the degradation of natural resources, the loss of biodiversity, and the spread of trans boundary pests and diseases of plants and animals, some of which are becoming resistant to antimicrobials.

HUNGER AND EXTREME POVERTY

Yet, around 700 million people, most of them living in rural areas, are still extremely poor today. In addition, despite undeniable progress in reducing rates of undernourishment and improving levels of nutrition and health, almost 800 million people are chronically hungry and 2 billion suffer micronutrient deficiencies. Under a ‘business – as – usual’ scenario, without additional efforts to promote pro-poor development, some 653 million people would still be undernourished in 2030. Even where poverty has been reduced, pervasive inequalities remain, hindering poverty eradication.

FOOD SYSTEMS

This is happening from input provisioning to food distribution. Small-scale producers and landless households are the first to lose out and increasingly seek employment opportunities outside of agriculture. This is driving increased migratory flows, especially of male members of rural households, which is leading, in turn, to the ‘feminization’, of farming in many parts of the world.

CONFLICTS CRISES AND NATURAL DISASTERS ARE INCREASING IN NUMBER AND INTENSITY

They reduce food availability, disrupt access to food and health care, and undermine social protection systems, pushing many affected people back into poverty and hunger, fuelling distress migrations and increasing the need for humanitarian aid. Violent conflict also frequently characterizes protracted crises. On average, the proportion of undernourished people living in low-income countries with a protracted crisis is between 2.5 and 3 times higher than in other low-income countries.

CHALLENGES

CHALLENGES TO FOOD AND AGRICULTURE

High- input, resource – intensive farming systems, which have caused massive deforestation, water scarcities, soil depletion and high levels of greenhouse gas emissions, cannot deliver sustainable food and agricultural production. Needed are innovative systems that protect and enhance the natural resource base, while increasing productivity. Needed is a transformative process towards ‘holistic’ approaches, such as agro ecology, agro-forestry, climate-smart agriculture and conservation agriculture, which also build upon indigenous and traditional knowledge. Technological improvements, along with drastic cuts in economy-wide and agricultural fossil fuel use, would help address climate change and the intensification of natural hazards, which affect all ecosystems and every aspect of human life (see figure 2). Greater international collaboration is needed to prevent emerging trans boundary agriculture and food system threats, such as pests and diseases.

REDUCE INEQUALITIES

That means addressing inequalities both between and within countries, in levels of income, in opportunities and in ownership of assets, including land. Pro-poor growth strategies, which ensure that the weakest participate in the benefit of market integration and investment in agriculture, would improve their income and investment opportunities in rural areas and address the root causes of migration.

JOB CREATION AND INCOME DIVERSIFICATION

Social protection combined with pro-poor growth will help meet the challenge of ending hunger and addressing the triple burden of malnutrition through healthier diets. Permanently eliminating hunger, malnutrition and extreme poverty also requires building resilience to protracted crises, disasters and conflicts, and preventing conflicts by promoting inclusive and equitable global development.

3. CONCLUSION

The study indicates that the agriculture and allied sector has maintained its pace though the percentage share in GDP has declined from 18.89% 1995-96/ 2004-05 to 13.51% in 2004-05/2014-15. The agriculture and allied sector has contributed 13.51% to the GDP in 2014-15. Around 4% growth per year remained the pace of the agriculture and allied sector during 2004-05 to 2014-15. The pattern suggests that growth in agriculture sector. Over the year, the non-food grain production has superseded the food-grain production. Especially horticulture production has witnessed steady growth; in 2004-05 the horticulture production and food-grain production was respectively i.e. 166.94 M.T, 198.36 M.T, which increased in 2015-16 i.e. 283.36 M.T and 252.22 M.T. The comparative study of the horticulture production and food-grain production suggest that the horticulture to total agriculture output is also increasing in 2011-12 it was 29.1% and in 2014-15 is 30.9%. The growth rate of crop sector in recent nine years (2003-04 to 2011-12) has been 75% higher than the previous decade (Table-4). The growth rate in livestock and horticulture was higher by 41% and fisheries by 48% over the preceding nine years period. Both vegetable as well fruit production increased by more period. These growth rates have taken fruit production to 77 MT. and vegetable productions to 158 MT. during 2011-13.

On the path to sustainable development, all countries are interdependent. One of the greatest challenges is achieving coherent, effective national and International governance, with clear development objectives and commitment to achieving them. The 2030 Agenda for Sustainable Development embodies such a vision – one that goes beyond the divide of ‘developed’ and ‘developing’ countries. Sustainable development is a universal challenge and the collective responsibility for all countries, requiring fundamental changes in the way all societies produce and consume.

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