

## A Study of Recent Trends in Agriculture

Tanubala

UIAS, Chandigarh University, Mohali

Corresponding author: tanuwala123gmail.com

ARTICLE ID: 020

### Abstract

Since more than half of workforce is still engaged in agriculture for their livelihoods and employment, agriculture continues to be a predominant sector of Indian economy, even though its share in national Gross Domestic Product has declined in recent years. Rapid growth of the non-agriculture sectors, particularly services, in post-reforms period has failed to accelerate agricultural growth or poverty reduction. During the last two decades Indian agriculture has been facing major challenges like deceleration in growth rate, degradation of natural resources, inter sectoral, inter-regional equity, declining input efficiency, etc. this paper attempts to analyze the trends of agricultural share in GDP and examines the public expenditures incurred since VI Plan period. The study is based on secondary data. The results concluded that there is need to incur more expenditure in agriculture and allied sectors to increase the share of agriculture in GDP of our country. The policy holders of XII plan may consider these issues while implementing the plan outlay.

**Key Words – Trend in Agriculture, GDP, Public Expenditure**

### Introduction:

Since more than half of workforce is still engaged in agriculture for their livelihoods and employment, agriculture continues to be a predominant sector of Indian economy, even though its share in national Gross Domestic Product has declined in recent years. Rapid growth of the non-agriculture sectors, particularly services, in post-reforms period has failed to accelerate agricultural growth or poverty reduction. During the last two decades Indian agriculture has been facing major challenges like deceleration in growth rate, degradation of natural resources, intersectoral, inter-regional equity, declining input efficiency, etc. In this

context this paper analyzes the trends of agricultural share in GDP and examines the public expenditures incurred since VI Plan period.

### **Objectives of the study**

The following objectives are decided in this study

1. To analyse the trends of agriculture, share in GDP of economy.
2. To examine the Public expenditure incurred by the government before and after reform period.

### **Methodology of the study**

Three parameters are decided in this study to know the trends in agriculture and role of plan period outlay for development of agriculture i.e. Share of GDP, Share Area – Production and Plan outlay. The study is based on secondary data. The secondary data is collected from the figures published in XII plan documents.

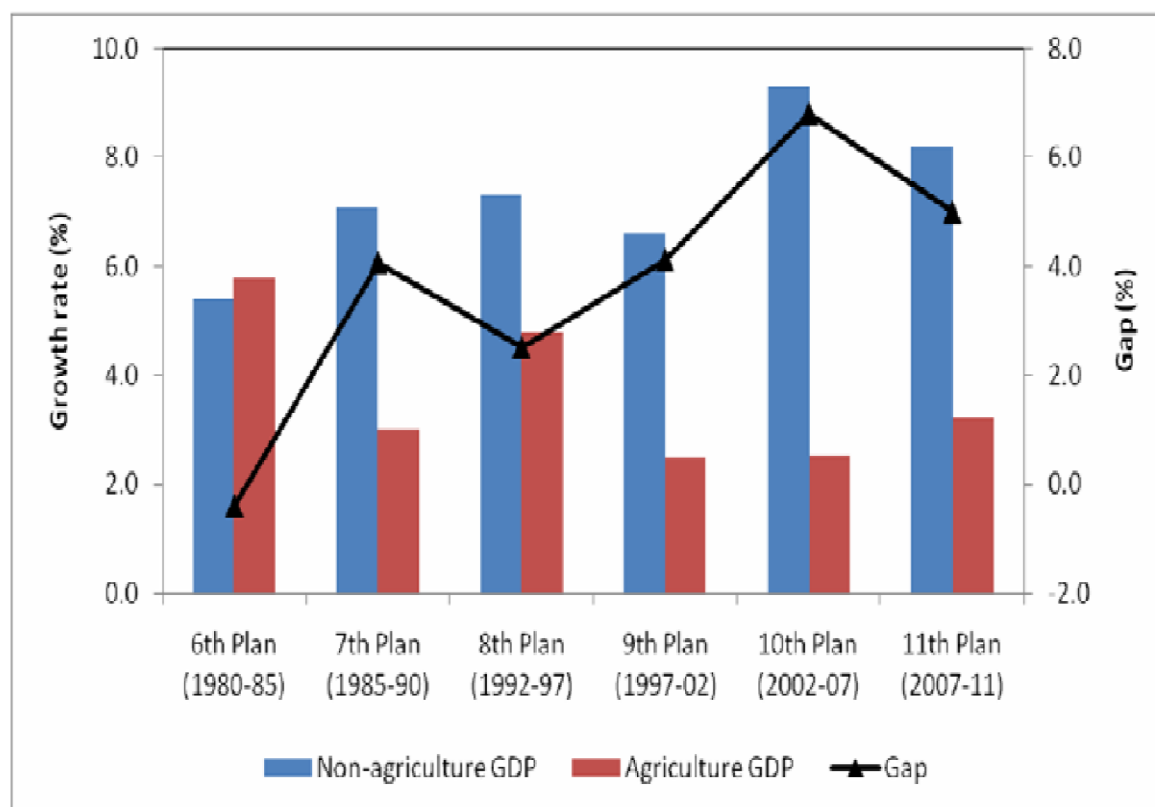
### **Performance of agricultural development**

Agriculture sector is the mainstay of the Indian economy, contributing about 15 per cent of national Gross Domestic Product (GDP) and more importantly, about half of India's population is wholly or significantly dependent on agriculture and allied activities for their livelihood (GOI, 2011). The contribution of agricultural sector to GDP has continued to decline over the years, while that of other sectors, particularly services, and has increased. In 1950-71 agriculture contributed about 55 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).

## GROWTH RATE IN GDP AGRICULTURE & NON-AGRICULTURE SECTOR

**Graph-1 Growth rate in GDP agriculture and non-agriculture sector**

(1999-00 prices for plan periods 8th to 10th Plan and 2004-05 prices for 11th Plan)



**Source: CSO (2011)**

The above graph presents the average growth rate of agriculture and non-agriculture GDP during the last three decades. The results clearly show that:

1. The growth rate of real agricultural GDP decelerated (5.8% in 8th Five Year Plan to about 2.5% in Tenth Plan) while that of non-agriculture GDP increased significantly from 5.4 percent to 9.3 percent during the same period.
2. The ratio of growth rate of real agricultural GDP to that of total real non-agriculture GDP was lowest (0.27) in X Five Year Plan period compared to that in VIII Five Year Plan period (1.07), indicating deceleration in agricultural growth compared with non-agricultural GDP. However, there is definite growth recovery in agricultural sector during XI Plan.

## CHANGING SHARES OF AREA & PRODUCTION OF MAJOR CROPS

**Table 1 Trends in area and Production of Major crops (During TE 1983-84 to TE 2008-09)**

Crops	Area in Million Hectares			Production in million tones		
	1983-84	1993-94	2009-10	1983-84	1993-94	2009-10
Rice	40.1	42.3	43.8	53.5	75.9	95.0
Wheat	23.5	24.3	28.1	41.9	57.6	80.0
Coarse cereals	41.5	33.6	27.9	30.9	31.1	38.2
Pulses	23.4	22.4	23.0	12.1	12.7	14.6
Foodgrains	128.5	122.6	122.8	138.4	177.4	227.8
Oilseeds	18.5	26.0	26.8	11.6	20.1	27.5
Sugarcane	3.2	3.6	4.6	183.3	237.2	303.7
Fruits & vegetables	5.1	8.3	13.6	-	95.6	188.7
Condiments & spices	2.2	2.3	2.6	-	2.5	4.15
Cotton	7.9	7.5	9.7	7.3	10.6	24.1
Net area sown	142.0	142.2	140.8	-	-	-
Total cropped area	176.4	184.8	194.0	-	-	-

*Source: Government of India (2010a)*

The data analysis shows that

1. During the last three decades net area sown declined from 142 million hectares to 140.8 million hectares in 2008-09.
2. Whereas total cropped area increased from 176.4 million hectares to 194 million hectares during the same period.
3. The area under foodgrains declined by about 6 million hectares between 1983-84 and 2009-10 and this decline in area under foodgrains reduced the share of foodgrains in total cropped area from about 73 percent in 1983-84 to about 63.8 percent in 2007-08.
4. The area under pulses has remained almost stagnant at about 23 million hectares, while area under wheat has increased by 4.6 million hectares, and rice by 3.7 million hectares.

5. The biggest loser has been coarse cereals where the area under cultivation has declined from 41.5 million hectares in 1983-84 to 33.6 million hectares in 1993-94 and 27.9 million hectares in 2008-09. The share of coarse cereals in total cropped area fell from 23.7 percent in early- 1980s to 14.8 percent in 2007-08.

### Trends of public expenditure

Dr. Babasaheb Ambedkar in their thought on agriculture development wrote in 1930 that there is need to invest in agriculture sector by policy makers to develop the agriculture in India. There is need to incur public expenditure in agriculture to bring about technical change in agriculture, and higher agricultural growth.

**Table-2 Trends of Public Expenditure on Agriculture allied sector (% to Total Public Expenditure)**

	VI Plan	VII Plan	VIII Plan	IX Plan	X Plan	XI Plan
<b>Agriculture &amp; allied sector</b>	<b>6.1</b>	<b>5.8</b>	<b>5.1</b>	<b>4.5</b>	<b>4.5</b>	<b>4.4</b>
<b>Rural development</b>	<b>6.4</b>	<b>7.0</b>	<b>8.3</b>	<b>6.9</b>	<b>9.2</b>	<b>9.0</b>
<b>Irrigation &amp; flood control</b>	<b>10.0</b>	<b>7.6</b>	<b>6.5</b>	<b>7.7</b>	<b>8.1</b>	<b>7.2</b>
<b>Agri., irrig. &amp; flood control &amp; rural development</b>	<b>23.9</b>	<b>22.0</b>	<b>20.9</b>	<b>19.9</b>	<b>23.0</b>	<b>21.8</b>
<b>Agriculture research &amp; education (% of total agri. &amp; allied sector)</b>	<b>9.6</b>	<b>6.7</b>	<b>5.2</b>	<b>10.4</b>	<b>12.0</b>	<b>15.9</b>
<b>Food &amp; fertilizer subsidy (%of total expenditure)</b>	<b>7.7</b>	<b>11.0</b>	<b>10.5</b>	<b>11.8</b>	<b>16.3</b>	<b>17.1</b>

Source: GoI (2008), GoI (2010a), and GoI (2011a)

In order to achieve over 4- 4.5 percent growth in agriculture sector, there is a need to step up investment in agriculture. The trends in public sector expenditure on agriculture and allied sectors, irrigation, and flood control and rural development is analyzed during the last three decades. It is also examined share of expenditure on agriculture research, education in total expenditure and trends in food and fertilizer subsidies.

It is evident that there has been a significant decline in the allocation of public outlay on agriculture as a percent of total public outlay during the post-reforms period compared to what it was in pre-reforms period (Desai and Namboodiri 1997). The data presented in above table shows that

1. Share of public expenditure on agriculture and allied sectors declined from about 6.1 percent in VI Plan to about 4.4 percent in XI plan.
2. Irrigation, which is a leading input for agricultural growth, expenditure also witnessed a declining trend (10% in VI plan to about 8% in X plan).
3. However, the share of public sector expenditure under rural development in total expenditure increased from 6.4 percent in the VI to 9.2 percent in the X plan.
4. The expenditure on food and fertilizer subsidies has also increased significantly from 6.7 percent in VI plan to about 16 percent in XI plan.

Two main reasons for reduced share of public sector expenditure under agriculture and allied activities are: one, increased and larger public expenditure on rural development schemes like the Mahatma Gandhi National Rural Employment Guarantee Act. (MNREGA), other rural development and poverty alleviation programmes, and increased and larger spending on food and fertilizer subsidy. It is interesting to note that public expenditure on agriculture research and education as proportion of total expenditure on agriculture and allied sectors, which declined during VII and VIII plans, increased significantly during the subsequent plan periods. However, public spending on agriculture research, education, and extension is about 0.6-0.7 percent of agricultural GDP (Chand, et. al. 2011), which is much lower than the international norm of 2 percent.

### **To Conclude**

It is observed that there is need to incur more expenditure in agriculture and allied sectors to increase the share of agriculture in GDP of our country. The policy holders of XII plan may consider these issues while implementing the plan outlay.