INDIAN AGRICULTURE: PERFORMANCE AND CHALLENGES

Abstract:

The post economic reform policies have diversified the Indian economy from an agro based economy to a partially industrialised and service-based economy. This decrease in agriculture's contribution to GDP has not been accompanied by a matching reduction in the share of agriculture in employment. About 52% of the total workforce is still employed by the farm sector which makes more than half of the Indian population dependant on agriculture for subsistence. Therefore the declining trend in agricultural growth has emerged as a major concern for researchers and policymakers. A large number of studies have enquired into the growth process of agricultural sector and has criticised the neo-liberal policy regime for a general neglect of the sector. The sector has recorded wide variations in yield and productivity and there was a shift towards cash crop cultivations. Moreover, agricultural indebtedness pushed several farming households into poverty and some of them resorted to extreme measures like suicides. In this context, the present paper reviews the performances and challenges of the Indian agriculture with special reference to the tribal agricultural farmers. The paper also concludes that much of the slowdown in agriculture is caused by the following factors like infrastructure, technology and environmental factors, lack of political commitment and poor implementation of policies.

Key words: India, agricultural performance, gross capital formation.

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Introduction:

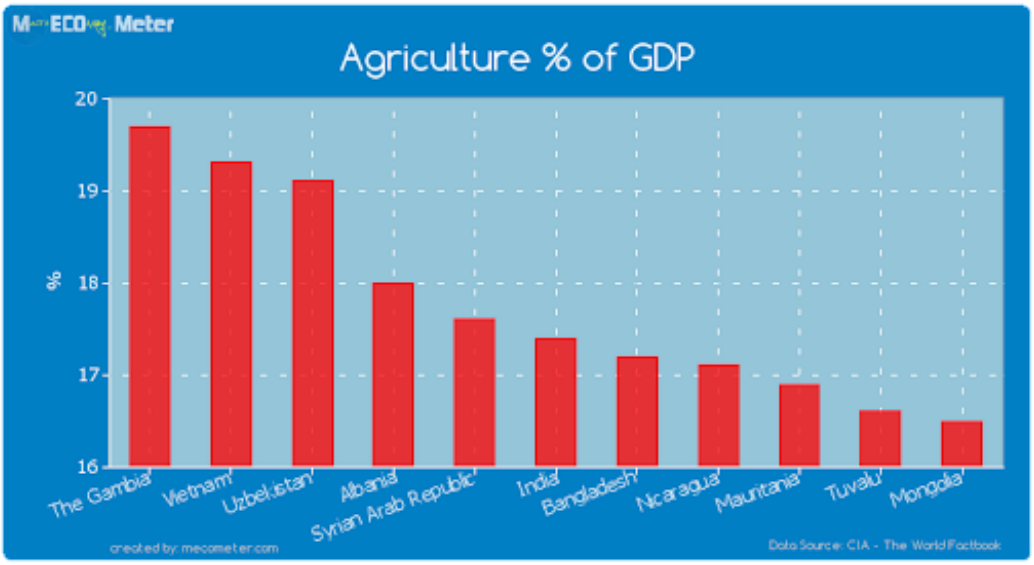
The agriculture sector contributes to just 15 percent of India's Gross Domestic Product (GDP), but over 50 percent of the population is still dependent on it. In the post reform period, there has been a continuous decline in government support in the form of declining investments in agriculture. The withdrawal of the State has led to much greater dependence of farmers on private sources. There has also been an upward trend in the cases of farmer suicides over the years, and the victims have largely been marginal and small farmers. Increasing costs of cultivation, leading to higher indebtedness, crop failures and inability to face price rise with greater liberalisation of the agricultural sector have forced farmers to take this extreme step. If the government works seriously in this regard, large scale employment will be generated in rural areas, which can help in curbing speedy migration and strengthening sustainable and inclusive growth. This paper attempts to analyse the performance and challenges of agriculture in India with special reference to the tribal agricultural farmers of Thalaimalai village.

Objectives of the Study

1. To analyse the importance of agriculture in the Indian economy in the planning period.

2. To find out the factors responsible for the poor performance of agriculture.

3. To suggest suitable corrective and remedial measures.

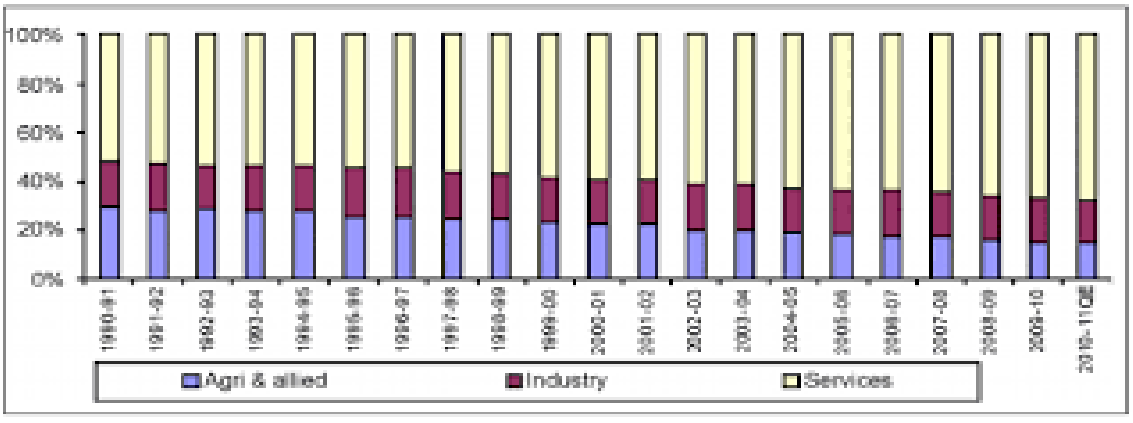


Methodology:

The study is based on both the primary as well as secondary data. The secondary data was collected from published and unpublished documents of Government Departments, Census report, Statistical Abstract of Tamil nadu, District Statistical Hand Book etc, Primary data was collected from the selected households of tribal area in Thalaimalai village. It was collected directly from the respondents through interview method by using specific information questions related to their economic conditions such as occupation, landholding size, income, borrowing, households' assets etc, this study area covers 6 hamlets of tribal people, which accounts for 196 houses of tribal houses, out of which 45 houses have been selected for the study purpose. The tribals investigated formed the sholagas and kurumbar category. The area of the block is 75,330 hectares (480 Square kilometers) in which forest area is 50239 hectares. The first and the second objectives were analysed with the help of secondary and primary data. (The contribution of agriculture in country's GDP and its share in employment of the country). The case study is purely based on primary data.

Performance of Agriculture:

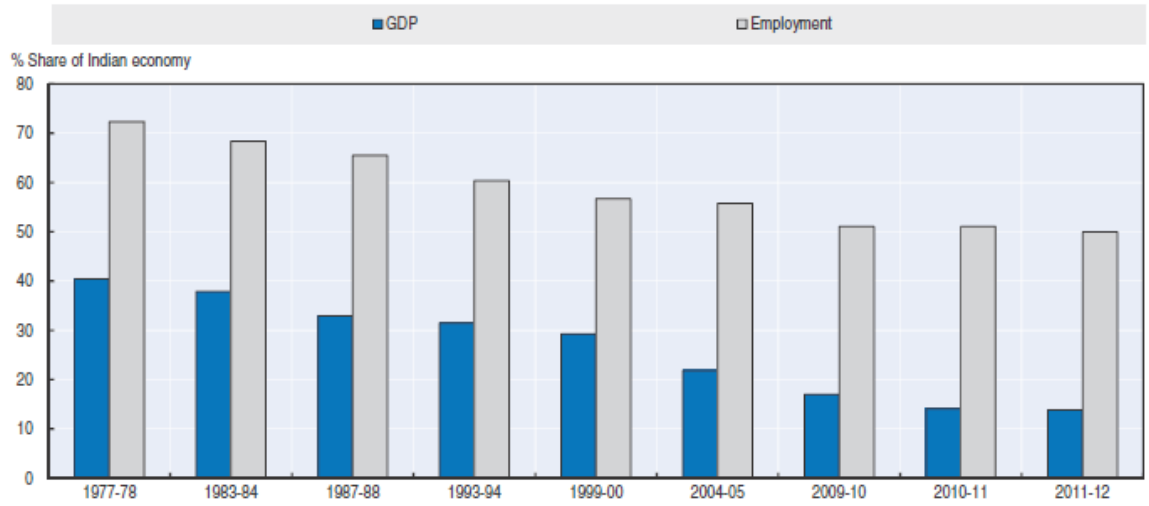
The agriculture sector in India has a undergone significant structural changes in the form of decrease in share of GDP from 30 percent in 1990-91 to 14.5 percent in 2010-11, indicating a shift from the traditional agrarian economy towards a service dominated economy which is shown in the following figure. However, within the rural economy, the share of income from non-farm activities has also increased.



Source: CSO

This decrease in agriculture's contribution to GDP has not been accompanied by a matching reduction in the share of agriculture in employment. About 52% of the total workforce is still employed by the farm sector which makes more than half of the Indian population dependant on agriculture for sustenance (NSS 66th Round). The following figure reveals the agriculture's share of employment in total employment.

Agriculture's share of national employment remains large in India



Sources: Employment share from 1977-78 to 1999-00 from Papola, T.S. (2006), *Employment Trends in India*, Institute for Studies in Industrial Development, New Delhi, India; Employment share for 2004-05; 2009-10 from World Bank (2014a), *World Development Indicators* (database). GDP share data from Government of India (2013a), *Economic Survey* 2012-13, Government of India, New Delhi.

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The proportion of people engaged in agriculture is quite high compared with the other sector of the economy; as a result, the marginal product of labour in agriculture is negligible or even zero. Because too many people are involved in agriculture than they are really required, moreover, the production of food grains is keeps on fluctuating over the year, due to the following factors such as inadequate irrigation, credit, outdated technology and the lack of infrastructural facilities.

Investment:

In recent years, the share of Gross Capital Formation (GCF) of agriculture & allied sector in total GCF has hovered between 6 to 8 percent whereas it was around 18 percent during the early 1980s. This indicates that the non-agriculture sectors are receiving higher investment as compared to agriculture & allied sector over the plan periods resulting in growth disparities. Though this is in line with the overall falling share of agriculture in the overall GDP therefore, there is need for substantial increase in investment in agriculture.

The following figure explains the Percentage Share of Agriculture & Allied Sector in Total Gross Capital Formation.

Table 1: Gross Capital Formation in Agriculture and Allied Sector as % Age of GDP from 1993-94 to 2010-11

Year	Public	Private	Total
1993-94	10.96	27.99	20.69
1994-95	9.56	19.01	15.05
1995-96	9.10	12.34	11.27
1996-97	8.34	14.70	12.45
1997-98	6.71	12.47	10.73
1998-99	6.07	13.28	11.06
1999-2K	5.62	16.06	13.01
2000-01	5.21	15.22	12.17
2001-02	5.74	16.98	13.72
2002-03	5.35	14.21	11.87
2003-04	5.76	11.15	9.74
2004-05	6.73	7.77	7.53
2005-06	6.80	7.16	7.07
2006-07	6.45	6.09	6.17
2007-08	5.26	5.89	5.74
2008-09	3.87	7.63	6.59
2009-10	3.83	6.73	5.96
2010-11	3.29	5.31	4.83

Source: Central Statistical Organisation (15 March, 2013); Advance Estimates of National Income, 12 July, 2014

The above table reveals that there is a decline in public investment on agriculture over the years than the private investment. During the 1990s, a steady downturn in investment rates was experienced by the agricultural sector, mainly in public investment. The ratio of public sector capital formation declined from 10.96 per cent in 1996-97 to only 3.29 per cent in 2010-11. Although the private sector capital formation in agriculture has been on the rise during the past decade, it has not been able to meet the shortfall on account of the corresponding decline in public investment. To rejuvenate agricultural growth, the declining trend in public investment needs to be corrected. Lower public investment deteriorates the quality of public services like uninterrupted power supply and other infrastructural facilities.

Result and Discussion:

The Following Facts Reveal the Tribal People's Farming Conditions

Thalaimalai village consists of 12 hamlets namely out of these, the last six hamlets (Ramaranai, Bejjalati, Ittarai, Thadasalatty, Mavanatham and Galidimbam) are tribal hamlets.

These six hamlets are surrounded by thick forest. All types of wild animals inhabit in the forest. The major cultivation of the people includes maize, ragi, jowar, gingelly and also vegetables to a limited extent. The tribal people also resort to supplementary occupation such as broom making, collecting minor forest products like kalpasam, tamarind, grasses, shikakai, soap nuts neem seeds and pungam seeds etc., There is no canal irrigation in these area. The study area covers 6 hamlets of tribal people, which accounts for 196 of tribal houses out of which 49 houses i.e., 25 percent were selected based on systematic random sampling. An investigation was conducted through interview method by using a specific questionnaire. They consist of Agricultural labourers, Marginal farmers, Small farmers, big farmers and other categories of people. The study concentrates mainly on the landholding pattern, agricultural crop, loan particulars like livestock particulars income and expenditures and general awareness etc.

Table 2: Distribution of land among different categories of farmers

Hamlet wise	Marginal Farmers		Small Farmers		Big Farmers	
	Patta land	Forest land	Patta land	Forest land	Patta land	Forest land
Galidimdam	3.66.0	-	2.85	-	-	-
Bejality	2.57.0	0.21.0	-	-	-	-
Thadasalatti	1.62.0	0.41.0	2.96.0	0.91.0	-	-
Lttarai	0.33.0	1.42.0	0.25.0	3.65.0	3.27.0	6.86.0
Mavenatham	-	4.88.0	-	1.22.0	-	-
Ramaranai	-	0.80.5	-	4.00.0	-	-
Total	8.18.0	7.72.5	6.06.0	9.78.0	3.27.0	6.86.0
Percentage	46.72.0	31.69.0	34.61.0	40.15.0	18.68.0	28.16

The above table reveals area. Among the six hamlets, forest land. The other two authorized to take agricultural possess the forest land for their Table 3: The above table explains open wells in agricultural land, engine. The other two wells engine in which one well is electricity facilities for irrigation irrigation in this area.

Apart the season. The area under percent of the total area depends No. 3 January 2016 ISSN: Journal of Arts, Science & Humanities Distribution of land among different categories of farmers reveals the land holding pattern of tribal community hamlets, the first four have possessed the patta land hamlets are used to cultivate only on forest land. agricultural loan from banks against these lands, even their domestic purposes

Table 3: Irrigation / Well Particulars of Respondents

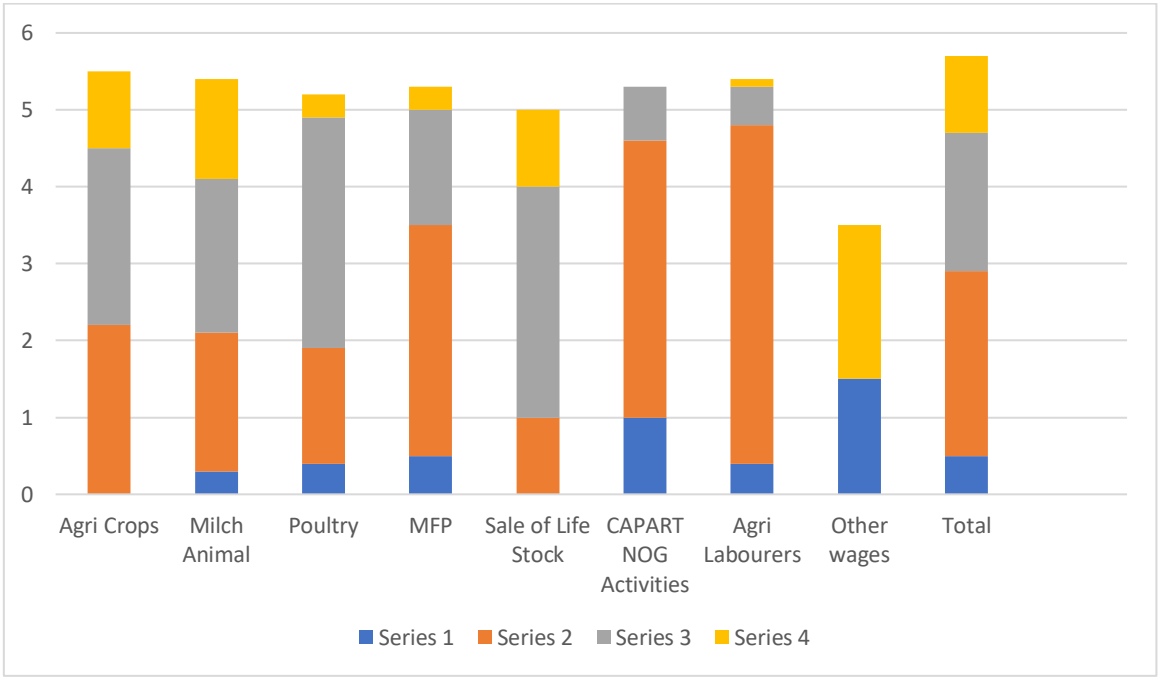
Hamlet wise	Open well	Used well	Unused well	Oil engine	Electric motor	Patta/Forest land
Galidimbam	2	-	2	-	-	Patta
Bejality	-	-	-	-	-	-
Thadasalatti	-	-	-	-	-	-
Lttarai	1	1	-	1	-	Patta
Mavanatham	2	1	1	2	-	Forest
Ramaranai	-	-	-	-	-	-
Total	5	2	3	3	-	-

The above table explains the well particulars of the respondents. Among the five open wells in agricultural land, unused wells; the remaining one is used with the help of oil engine. The other two wells are situated inside the forest land; each well has one oil engine in which one well is used and the other one is unused. It is concluded that the electricity facilities for irrigation has not been extended to tribal areas. There is no canal irrigation in this area. Apart from these, this area Thalaimalai received good rainfall during the season. The area under irrigation is only 4% of total cultivated area and about 96% of the total area depend on the rainfall season.

Table 4: Total cultivated area with various crops

SI No.	Crops	Total cultivated area		Irrigated area	
		I Crop (Kharif)	II Crop (Rabi)	I Crop	II Crop
1	Ragi	27.83.5	-	1.30.0	-
2	Jowar	1.02.0	26.19.5	-	0.60.0
3	Maize	0.50.0	-	-	-
4	Varagu	1.40.0	-	-	-
5	Vegetables	1.23.0	-	0.21.0	-
6	Mango	0.81.0	-	-	-
7	Orange	0.10.0	-	0.10.0	-
8	Flowers	-	0.20.0	-	-
9	Mulberry	0.40.0	-	-	-
10	Gingelly	5.0.30	-	-	-
11	Total	38.32.5	26.39.5	1.61.0	0.60.0
12	Percentage	95.80	97.73	4.20	2.27

Agriculture is mainly depends on vagaries of weather in this area which affects about 96 percent of cultivable land. The graph shows that the average rainfall received by the area over the past 10 years, from 1990-1999. The village has received the highest rainfall in the year 1996, which is about 1252 mm. the average rainfall for the past 10 years is 938.3 mm. It shows that they receive good rainfall during the seasons.



The above figure reveals that the main sources of income of the tribal people are Agricultural crops, Milch animal, Poultry, Minor forest products, Sale of livestock, CAPART and NOG activities, Agricultural labour etc. It is important to note that among the various sources of income; only MFP has contributed maximum income to the tribals than the other sources of occupation. i.e., (34.05) Next to MFP agricultural crops gives 33.41 percent income to tribal farmers. The other main subsidiary income of the tribal community in the study area is Milch animal and agricultural wage, which holds 9.21 percent and 7.94 percent respectively. The other sources of income is from poultry, sale of livestock, CAPART, NOG activities and other activities, i.e., about 15 percent of the total income. Therefore, we can conclude that the tribal people mainly depend upon collecting the minor forest for their main income. It is important to note that large farmers are not able to earn more income from other sources due to their land holding capacity, but marginal and agricultural labourers tend to pick up any kind of job available to them, in fact even they travel faraway places for agricultural jobs.

Conclusion:

To conclude, this paper essentially tried to look into the growth performance of Indian agriculture and explain the dismal performance by identifying sources of agricultural growth in the recent years. It is found that during the post reform period, the liberalisation policies initiated have acted against the agricultural growth rate to less than 2.5 per cent pa. Moreover, Reduction in public investment on irrigation and seeds, technology and extension has greatly affected yield. Changing cropping pattern has diverted the crop from low priced food grains to high priced commercial crops. Since the supply side factors such as lack of infrastructure development, institutional credit, technological support, reduction in the area under cultivation and withdrawal of state support in terms of subsidies have been mainly responsible for deceleration in agricultural growth. In the tribal area almost 96 percent of the farm land is purely depending upon the rainfall season. Therefore the government should take adequate steps to improve the irrigational facilities in the tribal areas so that they can consume adequate food throughout the year without starvation. Also, the size of the middlemen may be reduced so that they get proper remuneration for their produce. It is suggested that improving rural farm centric infrastructure, investment in agriculture and extension services, and emphasis

on research could be helpful in bringing the nation out of the rural distress that is currently plaguing the countryside.

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