
AGRICULTURAL PRODUCTION OF ASSAM AND IT'S DISPERITY WITH THE REST OF INDIA

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Abstract:

Assam is the land of villages and agriculture is her main occupation. A majority of state's population live in the rural areas. More than 75 percent of its population directly or indirectly engaged in agricultural activities. Out of the total geographical area of 78.43 lakh hectares, 41.60 lakh hectares are the total cropped area and 35.83 percent is under net sown area covering 28.11 lakh hectares. The cropping intensity is 152.43 percent. The contribution of Agriculture to the economy of Assam is more than 18.0 percent at constant prices (2004-05) to the net State Domestic product in 2011-12 (quick estimate).Paddy is the major crops in state among the varieties of crops. Although crop diversification and positive movement of cropping intensity as a result of a little improvement in the technique of production raised agricultural production in the state. But the agricultural production of the state is much below the expectation as compared to the many other states in the country like Madhya Pradesh, Punjab and Haryana etc. Consequently, a disparity in the agricultural productivity of the state with the rest of India arises. Many agricultural inputs as well as government machineries are responsible for it. Secondary data are used to expose such disparity between the state and the country. The study found a disparity in the production almost all the crops between the state of Assam and India.

Keywords; Occupation, Crop diversification, Cropping intensity, Disparity, Productivity.

1. INTRODUCTION

Assam is the land of villages and agriculture is her main occupation. A majority of state's population (almost 86 per cent) of the total population live in rural areas where the mainstay of business is production agriculture(Gogoi et al,2013).About 99 percent A majority of the state's population (86 percent) live in the rural areas. About 99 percent of total land mass is rural. The sector continues to support more than 75 percent population of the state directly or indirectly providing employment of more than 53 percent of the total workforce. Out of total geographical of 78.43 lakh hectares, 41.60 lakh hectares are the total cropped area and 35.83 is under net sown area covering 28.11 lakh hectares (2011 census). The average operational holding is 1.10 hectare only and more than 85 percent farmers are fall in the category of small and marginal farmers

(Provisional figure, 2010-11, Agricultural Census). The contribution of agriculture to the gross state domestic product of the state is 18.22 percent at constant prices 2004-05 in the year 2011-12 (Quick estimates) . The per capita food grain production is 156 kg in the state and agricultural production index including all commodities is 126.44 in 2011-12 (Base Triennium ending 2007-08=100)

2. OBJECTIVES

Specific objectives of the study are

- (i). To review the agricultural production as well as growth of in the state.
- (ii). To studies the disparity of agricultural production between the state and country.

Kharif and Rabi are the main crop seasons in Assam. Farmers of Assam keeps themselves busy in both the seasons in the field for the purpose of cultivation. Autumn rice, winter rice, maize, pulses, are the major kharif crops grown in the state and seasamum, castor, soyabean, groundnut are kharif oilseeds those are produced along with kharif vegetables. There are some non-food crops like jute, mesta, tea, cotton etc. also grown by the farmers in kharif season. On the other hand major rabi crops cultivated are summer rice, cereals, wheat, grams, rape & mustard, various rabi oilseeds, rabi vegetables, potato etc. The state is endowed with two mighty rivers namely-Brahmaputra and Barak and its tributaries. Besides, the state is blessed with plenty of rainfall and possesses a fertile land which is extremely advantageous for cropping. The soil, topography, rainfall and climate of the state are quite congenial for producing variety of crops in different crop seasons. Amongst the various important crops in the state, the area under rice dominated the position, sharing about 60.7 percent of the total cropped area in 2005-06 (Dhar, 2007). During the last few years the production and productivity of rice both are increased to a significant level. Since 2006-07 onwards and up to 2010-11 the productivity and production both were increased. But in 2011-12 both productivity and production of rice were decreased due to fall in the production of winter rice as a result of deficient rainfall. The scenario of rice production and productivity in the state from 2006-07 to 2011-12 is given (Table-1).

Table- 1: Production and Productivity of Rice from 2006-07 to 2011-12

Year	Production(Lakh MT)	Productivity (Kg. per ha)
2006-07	29.16	1349
2007-08	33.19	1428
2008-09	40.70	1638
2009-10	44.08	1765
2010-11	50.33	1969
2011-12	47.16	1876

Source: Economic Survey Assam, 2012-13, Govt. of Assam

Remarkable increase in the production and productivity of rice turns the state from deficit to surplus rice production state in the country according to the data announced by the 11th Five Year Plan of the state are depicted in the Table-2

Table- 2: Rice Production and Requirement in Assam during 11th Plan Period

Year	Production (lakh MT)	Requirement (lakh MT)	Difference (lakh MT)
2007-08	33.19	38.48	- 5.21
2008-09	40.70	38.92	+1.78
2009-10	44.08	39.47	+4.61
2010-11	50.33	40.30	+10.03
2011-12	47.16	41.00	+ 6.16

Source: Economic Survey 2011-12, Assam

Except in the year 2007-08 which was deficit in the production of rice equal to the amount of 5.21 lakh MT, all the years manifests surplus production in the state. In 2010-11 time period there was sharp increase in production due to some favorable conditions from 44.08 lakh MT in 2009-10 to 50.33 lakh MT and created a good surplus equal to the amount 10.03 lakh MT.

Positive trend of rice production strongly pushed the food grain production upward. It is almost doubled from 2,718.50 thousand tones in 1990-91 to 5,178 thousand tones in 2010-11. But unfortunately in 2011-12 it came down to 4,857 thousand tones due some unfavorable conditions especially shortage in the rainfall both in terms of total rainfall as well as spread. Similarly, production of fruits and vegetables has also increased manifold during the same period. Along with the food crops the farmers are also produces many non-food crops in the state. Assam is richly endowed with natural resources, favorable soil and climatic condition which facilitate crop diversification. Thus considering the growing demand of varieties of crops within the state and utilizing the inherent facilities, mono- cropping system is replaced by multi-cropping system. The state started to produce varieties of new crops along with traditional crops. The Assam Agriculture is diversifying towards high valued horticultural crops and cash crops (Deka et al.2013). The state has become the natural abode of horticultural crops which includes cultivation of wide range of horticulture crops like fruit, vegetables, spices, plantation crops, nuts and tuber crops. Horticulture occupies about 15 percent of the gross cultivated area in the state and annually produces more than 67 MT of various horticultural products besides nut crops, flowers, medicinal and aromatic plants. The state produced 17.14 lakh MT fruits, 2.48 lakh MT of spices, 46.20 lakh MT of vegetable crops and 8.52 lakh MT of tuber crops during 2011-12. Assam is adjudged as the “Highest Ranked State” amongst Group 2 States for performance in producing

food grains, thus became entitled to award of Rs.2.0 crore in 2011 . The category 2 States include Orissa, Tamil Nadu, Gujarat, Chhattisgarh, Jharkhand, Uttrakhand, Jammu & Kashmir and Himachal Pradesh besides Assam. In 2011-12, the state again awarded with Krishi Karman Awards for surpassing national average in pulses production. Assam has also ranked 1st for performance in rice production amongst all the states in 2010-11. During the 11th plan period, production of rice and food grains is increased by 74 % and 71% respectively due to the adoption of new farm technology in agriculture sector. Increase in the production of rice as well as food grain is a good indication of the sector. In order to make state economy healthy, increase in the production and productivity of food crops along with the other crops is very essential.

In spite of having surplus agricultural growth rate of the state over the national average in 2011-12, the state's share to India's agricultural production is negligible. Table-3 exposed the truth.

Table- 3: Assam's share in India in respect of production of crops (2011-12)(lakh MT)

Crop	Assam	India	Assam's share (percent)
Rice	47.16	1043.20	4.52
Wheat	0.49	939.00	0.05
Maize	0.17	215.70	0.09
Pulses	0.73	172.10	0.42
Oilseeds	1.52	300.12	0.51
Jute	6.08	19.60	31.02
Sugarcane	10.53	3576.67	0.3
Fruit	17.14	752.98	2.3
Spices	2.48	57.26	4.3
Potato	8.19	413.28	1.98

Source: Economic survey of Assam 2012-13

The state's share in India in respect of production of crops is highly unsatisfactory where most of the population directly or indirectly depends on agricultural sector. Rice is the major food crop of the state which covers 62.63 percent of the total cultivated land with only share 4.52 percent. Negligible share of such crops indicates low production. Although, according to the advance estimate in 2011-12 the food grain production in the state was 52.34 MT but the requirement was 50.08 MT indicating a little surplus food grain productions in the state. However, as far as the state's population engagement is concerned in the agricultural sector, the growth rate of the sector in the state is not much satisfactory as compare to states like Madhya Pradesh, Punjab, Haryana and many other states. During the era of green revolution the state's agricultural annual growth rate is fluctuating in nature. The state unable to reap the full benefit of green revolution due to lack of technical as well as institutional factors. Consequently, agricultural annual growth rate shows variations. The trends of contribution of the agricultural

sector to the gross state domestic product (GSDP) are also gradually falling. The table-4 given below furnished some evidences.

Table-4: Trend of Agricultural Growth of Assam (GSDP at constant prices 2004-05)
Figure in percentage

Year	Contribution to GSDP	Annual Growth
2005-06	21.39	1.9
2006-07	20.78	1.7
2007-08	20.48	3.0
2008-09	19.56	1.2
2009-10	19.10	6.5
2010-11(P)	18.95	7.0
2011-12(Q)	18.22	2.4

Source: Economic Survey 2012-13, Assam

But in recent years the agricultural growth rate of the state is on the track of upward trend. Within the period of six years (2006-07 to 2011-12) the agricultural growth rate of Assam reached from -0.27 to 6.67 percent. The growth rate 6.62 percent is a good sign as well as achievement of the agricultural sector indulging or bearing lot of problems of the sector. It is interesting to note that Assam's agriculture production growth rate 6.62 per cent, which is more than the national average of 4.62 per cent in 2011-12.

3. MATERIALS AND MATHOD

Secondary data collected from the various sources are used for the purpose of the study. Disparity in the production of crops between the state of Assam and the country is shown by calculating difference in the productivity of crops. Negative difference implies deficit in the productivity and positive difference implies surplus in the productivity of crops.

4. RESULTS AND DISCUSSION

Although there are some positive trends of agricultural production in the state for the last few years but it is not highly satisfactory. Still today the state lagging behind in respect of production and productivity of many crops with the different states of the country. As a result of that a disparity in the agricultural production between the state and country comes up. Following table-5 reveals the truth.

Table-5: Disparity in the productivity of some important crops of Assam and all India (kg/ha)

SI No.	Crops	Assam	India	Difference/Disparity
1	Rice	1,983	2,240	-257
2	Wheat	1,256	2,938	-1682
3	Maize	714	2507	-1793
4	Pulses	557	689	-132
5	Food grains	1,893	1,921	- 28
6	Oilseed	581	1,159	-578
7	Jute	1,808	2,344	-536
8	Sugarcane	36,196	68,596	-32400
9	Fruit	12,480	11,446	+1034
10	Vegetables	17,192	16,756	+436
11	Spices	2,530	1,630	+900

Source: Economic Survey 2011-12

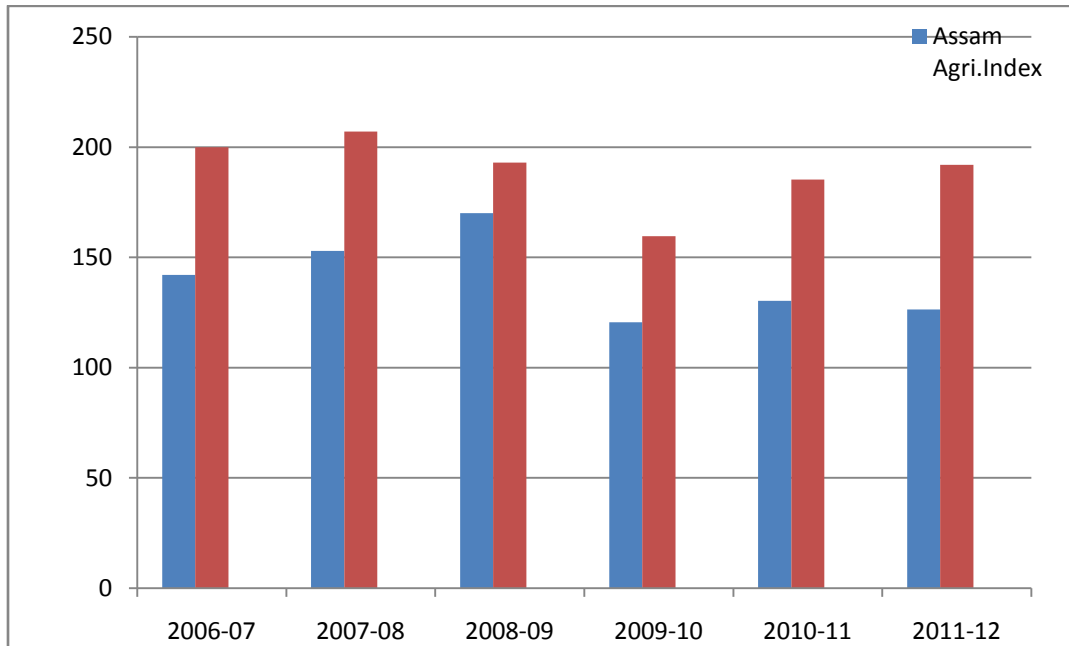
Except Fruit, vegetables and spice which are surplus in the productivity as shown by +1034, +436 and +900 all crops shown in the table no.6, indicated deficit in the productivity compare to all India productivity of the crops. Highest disparity is observed in the production sugarcane (-32400) and lowest disparity is observed in the production of food grains (-28). Disparity in the agricultural production between the state of Assam and India not a matter of one year as table no.6 shows, it continues year after year. Table-6 demonstrated it by the agricultural production index between the state and country.

Table-6: Disparity in Agricultural Production Between Assam and India From 2006-07 to 2011-12

Year	ASSAM	INDIA	Difference/Disparity
	All Comodities	All Commodities	
2006-07	142	200	-58
2007-08	153	207	-54
2008-09	170	193	-23
2009-10	120.57	159.6	-39.03
2010-11	130.25	185.3	-55.05
2011-12	126.44	192.0	-65.56

Source:Economic Survey 2012-13,Assam

Fig:1-Agricultural production index of Assam and India of all commodities from 2006-07 to 2011-12



All commodities in the above table no.6 includes food and non-food crops. Although gradual fall in the disparity was observed from 2006-07 to 2007-08 but from 2007-08 to 2008-09, it was sharp fall due to good production of food crops in the state. Again from 2009-10 to 2011-12, sharp increase in the disparity was seen because of fall in the production both food and non-food crops. The period of 2010-11 to 2011-12 total food grain production decreased from 51.78 lakh tonne to 48.57 lakh tonne.

5. PROBLEMS AND RECOMENDATIONS

The negative disparity (deficit in the production) in the agricultural production of the state occurred because of lot of factors. The varying natural, socio-economic and cultural environments exercise a critical and differential effect on the adoption of modern farm technology which has resulted to disparity in agriculture (Das et al, 2012). Some of the crucial agricultural factor responsible for disparity in agricultural production in the state can be viewed as-

1. Small and fragmented land holding: Assam agriculture is predominated by small holders with operational holdings of 1.10 hectares which is 1.16 hectares in all India

2. Less Irrigated Area: In Assam only 22.50 percent net cropped area is irrigated which is much below of national average, as it is 72 percent.
3. Less Fertiliser consumption: Fertiliser consumption in state is very low i.e.67kg/ha. as compared to 129 kg/ha. in all India.
4. Inadequate Credit Flow: In Assam only Rs. 2,626 per hectare agriculture credit is available whereas in India it is Rs. 15,379 per hectare.
5. Weak Marketing facilities: Unsatisfactory transportation facilities from village to market. Only 35 percent villages are connected with metalled road in the state.
6. Defective government policy and inefficient government machineries: Whatever policies government adopted towards agricultural sector is not fully satisfactory. Inefficient and some of the corrupted government machineries stands as a impediment for the development of the sector.

For the purpose of reduction in the disparity between state and the country some recommendations are furnished.

1. Impose restrictions on the fragmentation of land.
2. Rapidly increase the irrigated area.
3. Satisfactory minimum support price of the farmers to their crops.
4. Create strong agricultural marketing facilities for the all categories of farmers.
5. Easy and adequate supply of agricultural inputs to the farmers.
6. Increase fertiliser consumption rate up to standard level in the state.
7. Practical and effective policy of the government as well as strong action against the corrupted officials.

CONCLUSION

As most of the state's population depend on directly or indirectly on agriculture, the government cannot imagine the development of the state without developing the agricultural sector. Government full hearted support is absolutely essential for the development of the sector. Supply of agricultural inputs to a expectation level of the farmers can raise production as well as productivity of the crops in the state. Increase in the production and productivity of crops not only solve the problem of negative disparity of agricultural between the state and country but also create positive disparity.

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