



Present Status of Major Crops in Assam: A Critical Analysis

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Abstract

Assam economy is primarily agrarian in nature with almost 70% of the population directly dependent on agriculture as a source of income and another 15% of the population dependent on allied activities for its living. The contribution of the agriculture (crops + livestock) sector to GSDP at current prices was 15.64% in 2019-20. During 2019-20, out of total major crops area of Assam 89 per cent of area belonged under rice cultivation. It was about 6.04 per cent of land area and contributed about 5.28 per cent of total rice production at national level. Another specialty is that the rice is traditionally-grown throughout the year viz. winter, autumn and summer seasons, with winter rice as the main crop. All the agricultural programmes have been assigned with high priority in the successive plan periods to maximize rice production. The proposed study focuses only on status of major crops production in Assam which completely depends on secondary sources of data. The required data would collect from government publications, economic survey of state government, various journals and books.

Keywords: Agriculture, cultivation, occupation, rice, autumn, summer, winter, workforce.

1. Introduction

Assam is predominately rural and the economy purely agrarian in nature with almost 70 per cent of the population directly dependent on Agriculture as a source of income and another 15 per cent of the population dependent on allied activities for its living. It is for this reason that any strategy for the development of the State will have to keep agriculture at the Centre of its planning processes. If we look at the development of agriculture in Assam since independence, the scenario in the terms of productivity and production has been mixed. We have achieved self-sufficiency in rice, the staple crop, but we still have a shortfall in overall requirement of oilseed, pulses and wheat. We have a surplus production of fruits and vegetables, but almost 40 per cent of the crop is lost because of post harvest losses. The future of rice production too, is not assured in the State, largely because of the land and the abundance of water in the State, the two most important components for agricultural growth, Assam should have been one of the better developed States in the country. Yet in all the key indicators of agricultural development, be it irrigation, levels of mechanization, cropping intensity, market access or connectivity of the rural areas, the state today lags behind the rest of the country.

The economy of Assam is predominantly depending on agriculture sector. Agriculture is the principal occupation of the rural population in the state in terms of employment and livelihood. The net cultivated area of the State is 28.11 lakh hectares (2011-12) which is about 87.38 per cent of the total land available for agricultural cultivation in the State. The contribution of Agriculture Sector towards State GDP was

about 18.2 percent in 2011-12. However, Agriculture sector continues to support more than 75 percent population of the state directly or indirectly providing employment to about 50 percent of the total workforce.

In Assam, the soil, topography, rainfall and climate is favorable for agricultural activity mainly for rice cultivation and concentration is high on rice production both for farmers and the agriculture department. As per final estimates, the total area under cropped during the year 2018-19 was 40.04 lakh hectare where total rice area was 24 lakh hectare or 60 per cent of the total area under crops area in the State. During this time rice production of the state was 52.14 lakh MT. The area covered under HYV rice cultivation was 18.28 lakh hectares was 76.17 per cent of total Rice area under cultivation. This paper attempts to discuss status and productivity of Rice cultivation in Assam and its various challenges faced by it and will make suggestion to overcome from those challenges.

2. Objectives of the Study

- To investigate the present status of major food grains in Assam.
- To examine the position of rice cultivation in Assam.

3. Methodology of the Study

The required data has been collected from various sources i.e. books, journals, newspapers, government and semi-government publications and websites of various agencies etc. from year to year. The collected data would be processed and tabulated in the completion of the Study.

4. Presentation and Analysis of the Study

To know the present status of major cropping pattern and position of the rice cultivation in Assam, it should be study in statistical data on cropping pattern along with rice productivity in Assam to makes the study meaningful. The main features of the study have presented and analyzed in the following sections.

4.1. Trend of Growth of Agriculture Sector:

Agriculture significantly contributes to the state's economy, provides as a main source of occupation and livelihood to a large proportion of its rural population. As per (Census 2011), out of the total land mass, 98.4 percent is rural, where agriculture and allied activities is the major occupation of its people. The net cultivable area of the state is 28.11 hectares, which is about 87.38 percent of the total land mass available for agricultural cultivation in the state. The operational holding on an average is 1.10 hectares only and more than 85 percent of farmer families are either small or marginal farmers, with average land holding of only 0.63 hectare, but in a small size and scattered manner. However, agriculture as a sector still continues to support more than 75 percent of its population, providing employment and support to more than 50 percent of its total workforce. Government of Assam has declared 2015 16.

Table 1: Trend of growth of Agriculture sector

	(GSDP at Constant 2011-12 prices)	
Year	Contribution to GSDP (Figure in Rs. Lakh)	Annual growth over the previous year in Percentage
2011-2012	2061487	
2012-2013	2496905	21.12
2013-2014	2372688	-4.97
2014-2015 (P)	2373106	0.02
2015-2016 (Q)	2474086	4.26

Source: Economic Survey Report of Assam, 2016-2017

The base year for GDP estimation has changed from 2004-05 to 2011-12. With it, the macro picture of the Indian economy, along with the State has acquired a new look, with the introduction of substantive, changes. Assam, followed the changed approach in GDP estimation in preparing GSDP estimation of the State from 2011-12 onwards. The contribution of Agriculture Sector towards the State Economy has registered a gradual rise [GSDP at constant (2011-12) prices] for the years 2014-15 (Provisional estimates) and 2015-16 (Quick estimates). Though the annual growth rate has come down from- 4.97 as per 2013-14 to 0.02 as per 2014-15 (Provisional estimates). The growth rate is expected some recovery to 4.26 as per 2015-16 (Quick estimates).

4.2. Trend of Cropping Pattern in Assam

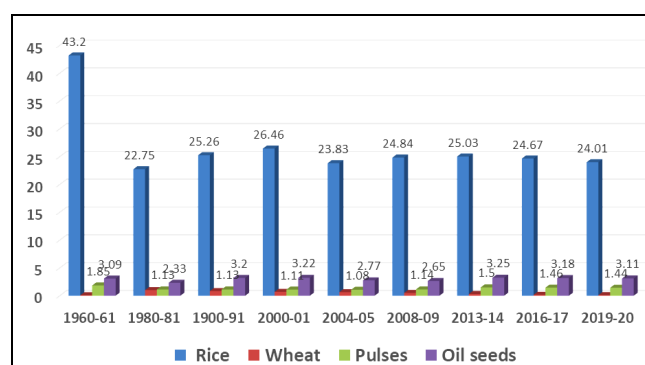
The cropping pattern is an important indicator to show the proportion of area under different crops at a definite point of time. At the beginning of the present century about 90 percent cultivate land of Assam was put under food crops and remaining 10 percent was put under cash crops. But after 1961 there was change in the cropping pattern in Assam due to increase in prices of cash crops. The following table shows the change in cropping pattern in Assam since 1960-61.

After independence a lot of change had been recorded in respect of cropping pattern of Assam. The table-1 shows the

change of cropping pattern in Assam from 1960-61 to 2019-20.

Table 2: Changes in area under major crops in Assam since 1960-61 (In lakh hectares)

Year	Rice	Wheat	Pulses	Oil seeds
1960-61	43.20	0.09	1.85	3.09
1980-81	22.75	1.02	1.13	2.33
1900-91	25.26	0.84	1.13	3.20
2000-01	26.46	0.70	1.11	3.22
2004-05	23.83	0.64	1.08	2.77
2008-09	24.84	0.50	1.14	2.65
2013-14	25.03	0.31	1.50	3.25
2016-17	24.67	0.17	1.46	3.18
2019-20	24.01	0.11	1.44	3.11



Source: 1. Economic survey of Assam – 2020-21, 2. Statistical hand book of Assam-200

Fig 1: Changes in area under major crops in Assam since 1960-61 (In lakh hectares)

The area in rice cultivation in Assam marginally increased 22.75 lakh hectares to 26.46 from 1980-81 to 2000-01, further it decreased to 24.01 lakh hectares in 2019-20 due to increase the demand for cash crops like oilseeds, jute sugarcane etc. Out of total cultivated area 84 per cent occupied by rice, 11 per cent oilseeds and 5 per cent pulses in 2019-20.

4.3. Trend of Agricultural Productivity in Assam:

The land of Assam is quite suitable for the production of food grains. The major portion of the total cropped area is being utilized for the production of food grains in Assam. The following table-2 shows the change in production of major crops in Assam since 1960-61.

Table 3: Changes in production of major crops in Assam since 1960-61 (Thousand tones)

Year	Rice	Wheat	Pulses	Oilseeds
1960-61	1641	3	26	48
1980-81	2523	118	47	112
1900-91	3270	105	49	169
2000-01	3999	86	62	155
2004-05	3470	68	61	146
2008-09	4008	55	62	137
2013-14	5193	40	88	186
2016-17	5436	35	98	212

Source: 1. Economic survey of Assam – 2017-18, 2. Statistical hand book of Assam-2018.

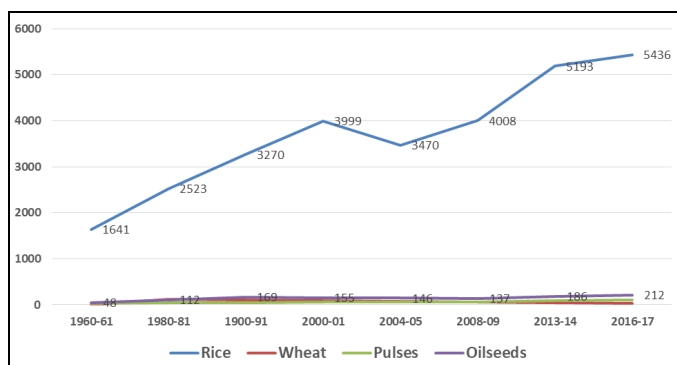


Fig 2: Changes in production of major crops in Assam since 1960-61 (Thousand tonnes).

The total production of Rice in the State was 25.23 lakh MT in 1980-81 compared to 16.41 lakh MT in 1960-61. It further increased to 39.99 lakh MT in 2000-01 from 32.70 lakh MT in 1990-91. Again, in 2008-09 rice production of state increased to 40.08 lakh MT and 54.936 lakh MT in 2016-17. Thus, the rice cultivation occupied as a principal crop in Assam during 1960-61 to 2013-14. During this period, production of wheat was marginally decreased but pulses and oilseeds production was marginally increased. The wheat production of the state was 1.18 lakh MT in 1980-81 compared to 0.03 lakh MT in 1960-61, at the same period pulses production was lakh MT 0.47 compared to 0.26 lakh MT and oilseeds production was 1.12 lakh MT compared to 0.48 lakh MT. After this period, wheat production was decreased to 0.86 lakh MT, but pulses and oilseeds was increased to 0.62 lakh MT and 1.55 lakh MT respectively in 2000-01. The pulses and oilseeds production were increased to 0.88 lakh MT and 1.86 lakh MT respectively in 2016-17, but wheat production was decreased to 0.35 lakh MT at the same time.

4.4. Trend of Rice Productivity in Assam

The rice is the main food grains of Assam. The environmental condition of Assam is favorable for rice production. The rice cultivation, during the year 2013-14 occupies 89.0 percent of the net cropped area and 60.0 percent of the gross cropped area in the State. There are three varieties of seasonal rice viz. autumn rice, winter rice and summer rice cultivated in the state. The following table shows the trend of rice production. Three varieties of seasonal rice viz. autumn rice, winter rice and summer rice cultivated in the state. The following table shows the trend of rice production in Assam since 2000-01.

Table 4: Area and productivity of rice in Assam since 2000-01

Year	Area in Lakh Hectare				Production In Lakh MT			
	Autumn Rice	Winter Rice	Summer Rice	Total Rice	Autumn Rice	Winter Rice	Summer Rice	Total Rice
2000-01	5.40	17.77	3.29	26.46	5.88	27.60	6.81	39.99
2004-05	4.36	16.36	3.12	23.83	2.86	25.74	6.10	34.70
2008-09	3.51	17.73	3.60	24.84	3.74	28.66	7.68	40.08
2013-14	2.23	18.81	3.99	25.03	2.94	37.09	11.90	51.93
2019-20	1.27	18.72	3.95	24.00	1.93	39.96	10.26	52.15

Source: 1. Economic survey of Assam – 2014-15, 2. Statistical hand book of Assam-2014

The total production of Rice in the State was 40.08 lakh MT in 2008-09 compared to 39.99 lakh MT in 2000-01. It was further increased to 52.15 lakh MT in 2019-20. Thus, it has seen that the Rice production of the state allows maintaining rising tendency and it has occupied about 80 per cent among all crops, about 90 per cent among all food grains. Thus, the rice cultivation occupied as a principal crop in Assam during 2000-01 to 2019-20. In 2019-20, area of winter rice occupied 78 percent out of total rice but produced only 76 percent but during this time, summer rice occupied 17 percent and produced 20 percent out of total rice.

5. Findings of the Study

- In Assam, the soil, topography, rainfall and climate in general are conducive for an agricultural activity mainly for rice cultivation and therefore concentration is high on rice production both for farmers and the agriculture department.
- The cropping pattern in Assam was change after 1961 due to increase in prices of cash crops. During this period area of rice, pulses and oilseeds cultivation marginally increased but wheat cultivation significantly decreased.
- It has seen that trend of rise production of the state allows maintaining rising tendency and it has occupied about 80 percent among all crops, about 90 percent among all food grains
- The pulses and oilseeds production were increased, but wheat production was decreased to at the same time during plan period.
- There are three varieties of seasonal rice viz. autumn rice, winter rice and summer rice cultivated in the state. The total area of winter rice was 75 percent of total rice area and contributed was 71 percent of total rice production of Assam in 2013-14.

6. Conclusion

It can be concluded that agriculture is the principal occupation of the rural population in the state in terms of employment and livelihood. The rice cultivation has taken significant role among all crops in Assam. The Assam has diverse soil and climate condition with vagarious of nature especially unseasonal floods and dry spells, wreaking havoc on crop land. In addition, insufficient irrigation support, occurrence of chronic flood and river bank erosion affected upon loss of agricultural land and further to crop loss and hampers crop production in the State. The need is of changing the pattern of cultivation in these hilly districts, which is posing as a great challenge before the State Government. The agricultural department of the state has made an attempt for adopting new agricultural strategy on a large scale to attain some degree of success towards green revolution, but it has succeeded only rice production. Whenever, a single surplus year does not make for self-sufficiency for the state. So, a lot of steeps should be necessary for increasing food grains with rice production in Assam.

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