

# Policy Induced Agrarian Distress in Assam

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**Abstract:** *Ever increasing agrarian distress in the state of Assam, India and outstate migration of human resources of the state is a major concern that is adversely influencing the utilization of rich local natural resources and rural social life of the state. Extreme under utilization of inherent potentialities of the state in the agricultural sector is found to have occurred due to erroneous government policy of centralized rice procurement and distribution system for the welfare programs. Instead of increasing the local resources, both natural and human, the policy of the country, in the name of welfare program, eventually pumped more subsidized rice to the state by absolutely destroying the local rice market. In this paper attempts are being made to understand the trend of different seasonal rice production and its self-sufficiency in the state. Appropriate considerations are undertaken to the increasing population and existing supply of rice to the state in the name of Welfare programs.*

**Keywords:** Rice, Agriculture, Assam, FCI

## 1. Introduction

Assam has a wonderful inherent agricultural environment with highly fertile soil, abundant water sources, tremendous bio diversity and absolutely green micro climatic conditions. Surprisingly most of the agricultural land is used for single cropping only with very little areas of the state practiced multiple cropping. Different policy makers and planners pointed lack of irrigation as the reason for not having double cropping in the state. However, the state had decided to promote Shallow Tube Well irrigation by late nineteen nineties and in the mean time, covered more than Lakhs hectares of land with irrigation facilities.

The total cropping area in Assam was static at around 25.3 Lakh Hectares since 1996-97. However, the cropping area has increased phenomenally to 26.5 lakh hectre in the state by 1999-2000 due to introduction of Shallow Tube Well irrigation in the state. It also made the state self sufficient on rice production.

Unfortunately, the growth of cropping area and self-sufficiency of rice production did not sustain for long in the state and came back to its original status just after two years due to various adverse conditions.

All further agricultural production enhancement attempt will make no sustainable result without really understanding the reasons for the collapse of the earlier attempts. At least the interim growth of agricultural production during the period starting from 2000 to 2002 has proved the inherent potentiality of the rice production and ability of the farmers in the state to meet the existing demand of rice.

## 2. Objective of the Research

The main objectives of the research were

- 1) To develop a comprehensive understanding on the agricultural sector of Assam
- 2) To elicit various verticals of agricultural growth in the state of Assam including its economic, social, environmental and technical implications

- 3) To understand what is the average production cost of paddy within the existing set of conditions in the state and what the market price of it
- 4) To assess if the agriculture in the state is an economically viable trade
- 5) To make scientific estimation of what is the total production of Rice in the state of Assam and what is the total requirement of rice
- 6) To explore, if the enhancing agricultural production make any sense in the local market scenario

## 3. The Research Design

The research covers the entire state with field level exploration in 5 agro-climatic zones, viz:- Upper Assam, Central Assam, Lower Assam, North Bank and Barak valley. In each of the 5 locations, field level investigations were carried out through conducting Focus Group Discussions. Necessary inter and intra location variations of different parameters are documented.

Various state specific government policies and process are analyzed and its relation to the agricultural input, production and marketing are observed. Secondary information from Agricultural department, Food Corporation of India, department of Food and civil supplies, public distribution system, ICDS programs are collected and analyzed. However, this paper is based on the finding of the secondary information gathered from various relevant government departments. The field level exploration is not under consideration in the purview of this research paper.

## 4. Overview of Agriculture in Assam

The net cropping area in the state of Assam has reduced by 1,61,190 hectares from 2001 to 2016 as per the report of the Department of Agriculture, Government of Assam (2001-2016).

In the year 2000-01 net cropping area in the state of Assam was 26,46,177 hectares which was followed by sharp decline of the net cropping area for next six years till 2006-07. In this 6 years the net cropping area of the state decreased by

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4.6 Lakhs hectares. . However, in the next four years the state regained the net cropping area up to an extent till 2010-11 just to decline again from the next successive years.

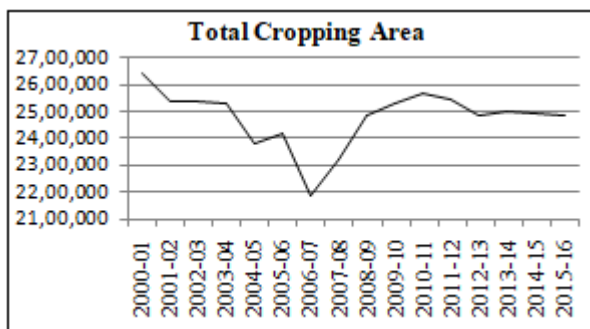


Figure 1: Total Cropping Area variation in Assam in the last 15 years. The cropping area is measured in hectares

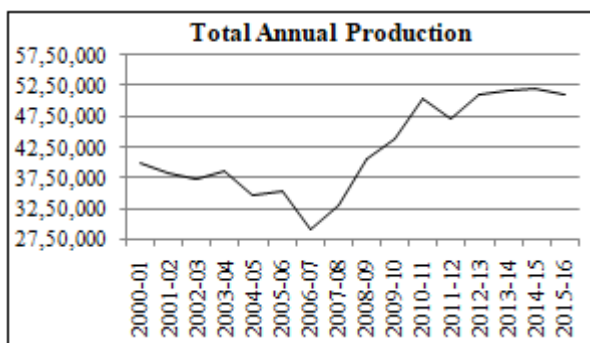


Figure 2: Total Annual Rice Production variation in Assam in the last 15 years. (Measured in MT)

The latest net Cropping area record available with the department of Agriculture, Government of Assam, for the year 2015-16 records that it has come down again to 24,84,987 hectares.

Along with the cropping area, annual production of rice has also declined from 2000-01 to 2006-07. However, from the next year onwards the annual rice production of the state has increased gradually with a higher rate than that of the net cropping area growth. The peak created in the net cropping area in the year 2010-11 is observed in the annual rice production of the state too. A plateau of Rice production in the year 2012-13 to 2014-15 and decline in the year 2015-16 is recorded.

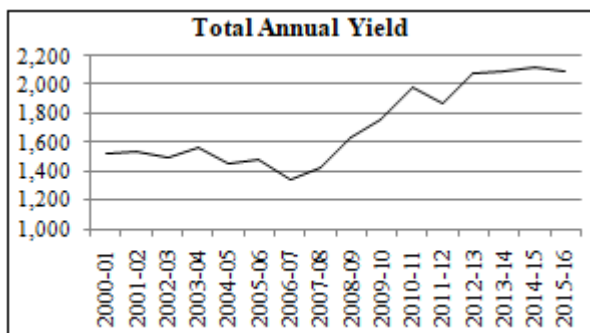


Figure 3: Annual Yield variation in Assam in the last 15 years. (Measured in Kg. per Hectare)

It is important to note that the net cropping area variation curve resembles with the total annual production variation curve. But the rate of growth of annual production is much faster than the net cropping area regained after 2006-7. It indicates some remarkable enhancement in the rice productivity per unit area in the successive years from 2007-08 to 2011-12

Analysis of the Average Yield in Kg. per Hectare has shown an interesting change from the year 2006-07 onwards. The increase in productivity envisages change in either agricultural input or mechanization or system of production. It could also mean a positive change in all of these factors too.

Table 1: Yearly change in Rice Production of Assam

Year	Area	Production	AY
2000-01	2,646,177	3,998,443	1,531
2001-02	2,536,434	3,854,248	1,540
2002-03	2,540,680	3,737,802	1,491
2003-04	2,529,826	3,880,934	1,561
2004-05	2,383,730	3,470,746	1,456
2005-06	2,420,327	3,552,438	1,487
2006-07	2,190,247	2,916,014	1,349
2007-08	2,323,996	3,318,608	1,428
2008-09	2,484,126	4,069,986	1,638
2009-10	2,529,975	4,408,424	1,765
2010-11	2,570,339	5,032,574	1,983
2011-12	2,545,707	4,715,678	1,876
2012-13	2,488,228	5,128,508	2,088
2013-14	2,503,201	5,193,379	2,101
2014-15	2,495,297	5,222,645	2,120
2015-16	2,484,987	5,125,104	2,089

Note: Area measured in Hectare, Production in MT and Yield in Kg per Hectare.

However, higher rice production in the recent past is due to change of the average annual yield in Kg. per hectare not really contributing to the expansion in the cropping area.

From the year 2012-13 average annual yield per hectare in Assam has crossed the 2,000 kg mark. In the year 2013-14 average annual yield of Assam was 2,101 Kg per hectare and interestingly the NITI Aayog report also recorded the national average annual yield of India for the year 2013-14 as absolutely the same 2,101 Kg. per hectare. The rising productivity of Rice in Assam, if accompanied by the rising net cropping area, the State could have produced at least 2 lakh MT more rice in the state.

The Task Force on Agricultural Development constituted by the National Institution for Transforming India (NITI) Aayog, Government of India, in March 2015, rightly pointed out on its paper published on 16 December 2015 entitled 'Raising Agricultural Productivity and Making Farming Remunerative for Farmers' that "we need to pay special attention to the problems of farmers in eastern states. Given fertile land and abundant water resources, these states have a high potential in agriculture. Yet, their productivity in various crops lags behind the national average. Despite favourable climatic conditions and water availability crop intensity in the region is low. Therefore, concerted effort is

required to bring the Green Revolution to these states (Gulati, Gujral and Nandakumar 2010)”.

### 5. Change in the Farming Practices in Assam

The farmers of Assam produce rice in 3 seasons with varied seasonal cropping area. Mostly a single farmer goes for any one of these three crops based on the local environment and farmland quality. A handful of farmers go for practicing double cropping of rice too.

#### 5.1 The Autumn Rice (Ahu)

The Autumn Rice, locally known as *Ahu* Rice, is a low effort and comparatively low quality rice production that is being practiced in the state for ages. Generally, farmers of Assam do not go for transplantation of *Ahu* rice seedlings but practice broadcast method to reduce cost and effort. However, in few places transplantation method is also practiced in *Ahu* cultivation and reported higher production than that of broadcast method.

*Ahu* is sown in the month of March – April and harvested in the month of June-July in broadcast method. Apart from intermittent weeding, no other efforts are being given in *Ahu* rice production. Only those *Ahu* farmers practicing transplantation method go for irrigation.

In the year 2000-01 around 5.4 Lakh hectares of agricultural land was occupied by the *Ahu* rice cultivation. However, *Ahu* rice cropping area in Assam has declined sharply to cover 1.9 Lakh hectares only in the year 2015-16.

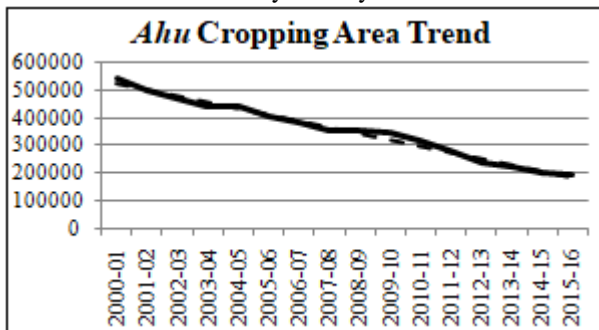


Figure 4: *Ahu* Rice Cropping Area variation in Assam in the last 15 years. The cropping area is measured in hectares

Following the *Ahu* cropping area decline, *Ahu* rice production also demonstrated the same waning trend. In the year 2000-01 total *Ahu* production in the state was 5.6 Lakh Metric Tons which come down to reach 2.6 Lakh Metric Tons in the year 2015-16.

The linear trend of decline of *Ahu* Cropping area is not the same that of *Ahu* production decline. The production trend decline has shown a steadiness indicating positive change in the productivity of *Ahu* rice over a period of time. The annual yield analysis of *Ahu* crop has shown that the productivity of *Ahu* rice in the year 2000-01 was just 1,050 Kg. per hectare which has improved to 1,364 Kg. per hectare by 2015-16.

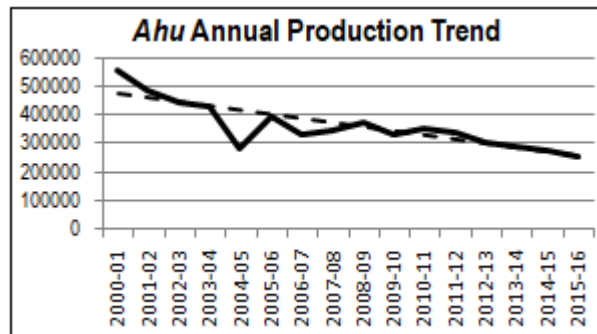


Figure 5: Production variation of *Ahu* Rice in Assam in the last 15 years. (Measured in MT)

It is a matter of investigation why the farmers have stopped practicing *Ahu* cultivation in spite of low input cost requirements, low effort and increasing productivity in the recent past.

#### 5.2 The Winter Rice (Sali)

The Winter Rice is the most widely practiced agriculture in the state of Assam. Out of 24.8 Lakh hectares of net cropping area in the state, around 18.9 Lakh hectares of land is being occupied by the *Sali* Rice.

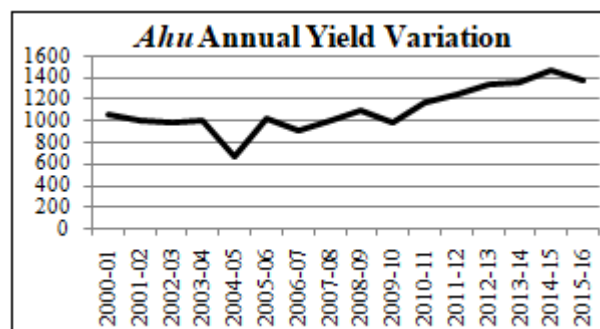


Figure 6: Yield variation of *Ahu* Rice in Assam in the last 15 years. (Measured in Kg. per Hectare)

It is a rain feed agriculture traditionally practiced in the state. All the ceremonial festivals of the Assamese Culture are based on this Agricultural practice. It is not only a livelihood activities of the communities here but also this vary agriculture is a part of the culture of the communities here. As a result this agriculture is practiced as culture of the communities in the state when it might have a very little or no livelihood benefit at all.

Table 2: Yearly changes of Autumn Rice in Assam

Year	Area	Production	AY
2000-01	539665	557764	1050
2001-02	495698	487719	1000
2002-03	464497	444884	973
2003-04	441143	430374	991
2004-05	436244	286326	667
2005-06	398316	398077	1016
2006-07	379441	335708	899
2007-08	354115	347992	999
2008-09	350649	374010	1084
2009-10	346369	334655	982
2010-11	312995	355870	1155
2011-12	276486	338015	1242

2012-13	238178	308745	1317
2013-14	223332	294440	1340
2014-15	196188	280693	1454
2015-16	191322	256729	1364

Note: Area measured in Hectare, Production in MT and Yield in Kg per Hectare.

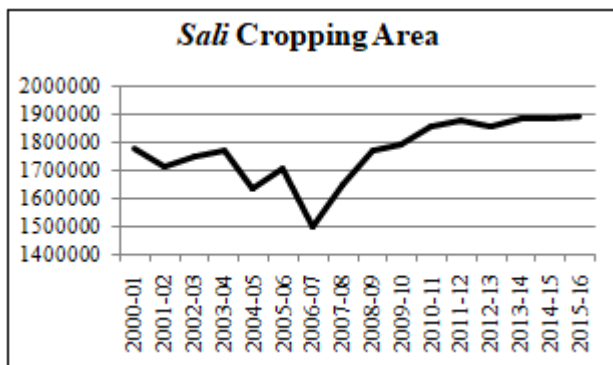


Figure 7: Sali Rice Cropping Area variation in Assam in the last 15 years. The cropping area is measured in hectares

The state has practiced Sali agriculture with varied intensities in the last decade. In the starting of the new millennium, cropping area for Sali Rice was recorded as 17,77,257 hectares with a zigzag variation of cropping area for next few years. In the year 2006-07, Sali cropping area had a sudden drop by around three lakhs hectares to reach 14,98,335 hectares only. However, from the next year onwards the Sali cropping area has increased gradually in the recent past. As per the last record available with the Department of Agriculture Government of Assam, Sali Cropping area in the State has reached 18,88,683 hectares in the year 2015-16.

Annual Sali Rice production was also proportionately influenced by the changes in the Cropping area of the crop. In the year 2000-01 the annual Sali Rice production in the state was 27.6 Lakhs Metric Tons which is reduced proportionately with the decrease of the cropping area and reached as low as 19.5 Lakhs Metric Tons only in the year 2006-07. It eventually started growing again from the next year onwards to reach 37.3 Lakhs Metric Tons in the year 2015-16.

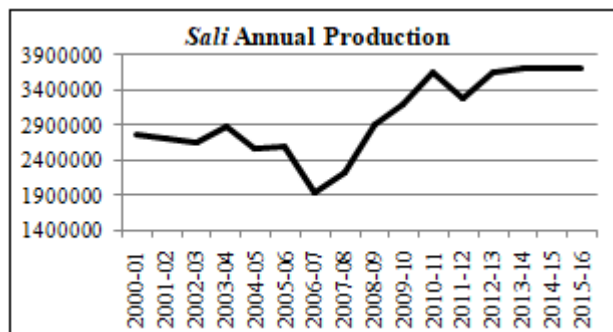


Figure 8: Production variation of Sali Rice in Assam in the last 15 years. (Measured in MT)

The analysis of change in the productivity of Sali Rice in the state has demonstrated some positive transformation in the recent past. In the year 2000-01 the productivity of Sali rice

in the state was merely 1,576 Kg. per hectare and it has gradually increased to reach 2,003 Kg. per hectare in the year 2015-16. It is to be noted that all the three variables analyzed here are showing some stagnancy from the year 2013-14 to 2015-16 with extremely nominal variations. The fluctuation of one variable is replicated in the other two variables too.

Table 3: Yearly changes of Winter Rice in Assam

Year	Area	Production	AY
2000-01	17,77,257	27,59,652	1,576
2001-02	17,14,736	27,13,493	1,607
2002-03	17,48,715	26,70,560	1,550
2003-04	17,69,203	28,77,372	1,651
2004-05	16,36,049	25,74,284	1,598
2005-06	17,07,340	25,94,392	1,543
2006-07	14,98,335	19,50,144	1,321
2007-08	16,46,992	22,38,765	1,380
2008-09	17,73,211	29,24,223	1,674
2009-10	17,89,161	32,13,979	1,824
2010-11	18,58,559	36,49,129	1,993
2011-12	18,75,601	32,97,592	1,785
2012-13	18,57,410	36,55,430	1,998
2013-14	18,80,737	37,09,081	2,002
2014-15	18,82,756	37,17,906	2,005
2015-16	18,88,683	37,27,039	2,003

Note: Area measured in Hectare, Production in MT and Yield in Kg per Hectare

When the cropping area increases, the production is also increases along with productivity (production per hectare). It is obvious that when cropping area increases production also increases. But productivity increase on the same trend implies influence of some external factors that not necessarily have much to do with the cropping area increase or decrease. These external factors could be the change in agricultural input and mechanization, change in climate, situation of natural disaster, change in market forces or even the change in socio-political domain.

### 5.3 The Summer Rice (Boro/Irri)

The summer rice cultivation practice was not a widely used rice production system for the communities of Assam. It is a recent addition to the agricultural practices of the state which had started in the late 1990s with path breaking government initiatives for promotion of second cropping by launching of Samridhi Krishak Yujana (SKY) through which Shallow Tube Well (STW) irrigation and agricultural mechanization was promoted in a big way in the state. Locally, this cropping is known as Boro rice in upper Assam districts and Irri in Lower Assam and in Borak valley districts of Assam.

K.C. Talukdar and B.C. Beka recorded that “The proportionate area of summer rice in the gross cropped area (GCA) in the state was found to shift at different magnitudes during the period 1951-1998. It was 0.15 per cent in 1951, which increased to 3.56 per cent in 1990 and further to 7.00 per cent in 1998”. In this research summer rice cropping area was recorded as 12.44 percent of the GCA in the year



2000-01 which was increased to 16.30 percent in the year 2015-16. In the year 2000-01 *Boro* Cropping area was recorded as 3.29 Lakh hectares and eventually it was increased to 4.05 Lakh hectares in the year 2015-16. The growth curve of summer rice is not smooth over the period of last fifteen years. Cropping area reduced from 2002-03 to 2006-07 and 2009-10 to 2012-13.

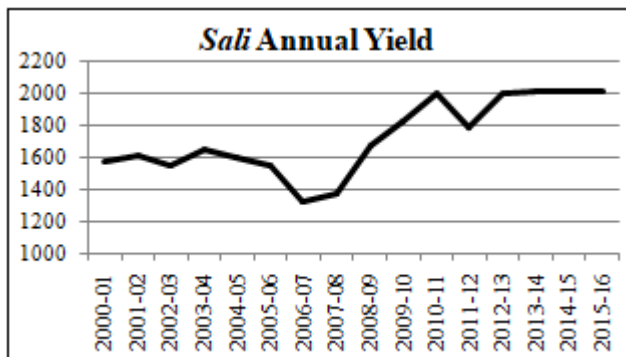


Figure 9: Yield variation of *Sali* Rice in Assam in the last 15 years. (Measured in Kg. per Hectare)

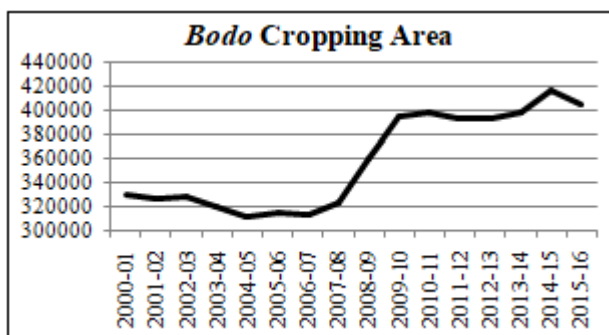


Figure 10: *Boro* Rice Cropping Area variation in Assam in the last 15 years. (Measured in hectares)

However, annual production of *Boro* rice in Assam has comparatively a smooth trend of growth, perhaps, induced by the proportionate growth of productivity. In the year 2000-01 the total annual production of *Boro* Rice in Assam was 6.8 Lakhs Metric Tons in the year 2000-01 and went up to 11.4 Lakhs Metric Tons in the year 2015-16. Similarly the productivity of *Boro* Rice was 2,068 Kg per hectares in the year 2000-01 and increased to 2,981 Kg per hectare in the year 2013-14. However, in the next two consecutive years the productivity is marginally and gradually declined to 2,940 kg per hectares to 2,818 kg per hectares successively.

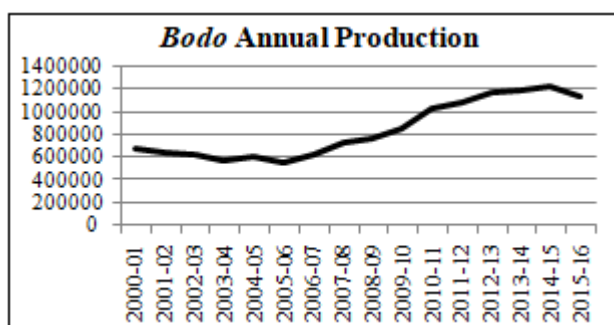


Figure 11: Production variation of *Boro* Rice in Assam in the last 15 years. (Measured in MT)

*Boro* Rice production is a cost intensive agricultural practice but comparatively, this practice is flood disaster risk free. This cropping is expanding pretty fast in the flood prone areas. *Boro* rice is also rewarding in terms of productivity.

When the best production of *Sali* Rice was recorded as 2,005 kg per hectare, the best production of *Boro* rice is recorded as 2,981 kg per hectare. The *Boro* rice is also harvested in the month of June/July providing competitive advantage in the market scenario.

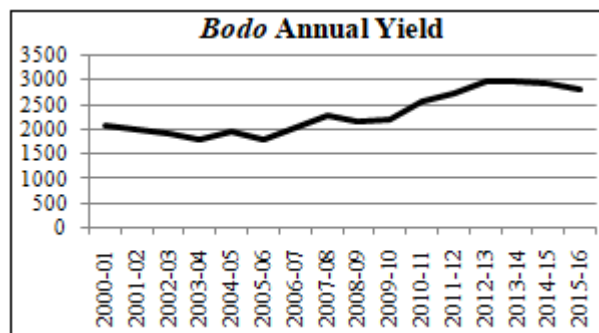


Figure 12: Yield variation of *Boro* Rice in Assam in the last 15 years. (Measured in Kg. per Hectare)

Table 4: Yearly changes of Summer Rice in Assam

Year	Area	Production	AY
2000-01	329255	681027	2068
2001-02	326000	653036	2003
2002-03	327468	622358	1901
2003-04	319480	573189	1794
2004-05	311437	610136	1959
2005-06	314671	559969	1780
2006-07	312471	630162	2017
2007-08	322889	731851	2267
2008-09	360266	771753	2142
2009-10	394442	859790	2180
2010-11	398785	1027575	2577
2011-12	393620	1080072	2744
2012-13	392640	1164333	2965
2013-14	399132	1189858	2981
2014-15	416353	1224046	2940
2015-16	404982	1141336	2818

Note: Area measured in Hectare, Production in MT and Yield in Kg per Hectare

However, the extension of *Boro* rice is limited by two factors. First, it is mostly practiced in the flood prone areas and secondly, the small farmers with low landholding rarely go for this cultivation because of its initial cost prohibitive nature of farming. However, the landless farmers and the daily wage laborers are getting more income opportunities because of *Boro* Rice production in the state.

## 6. Comparative Analysis of Second Cropping

The agricultural field of the state of Assam is an asset for the country which is rich in nutrient, highly fertile along with inexhaustible surface as well as ground water availability. Keeping such cultivable land barren is a major wastage of natural resources. However, the reduction of cropping area in the state is indicating mismanagement of the countries

assets as well wastage of opportunities.

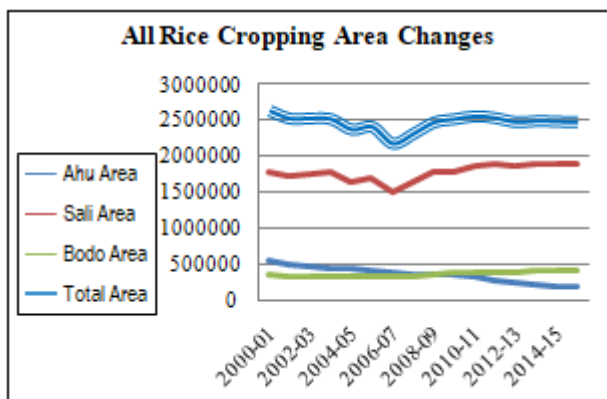


Figure 13: Yield variation of Boro Rice in Assam in the last 15 years. (Measured in Kg. per Hectare)

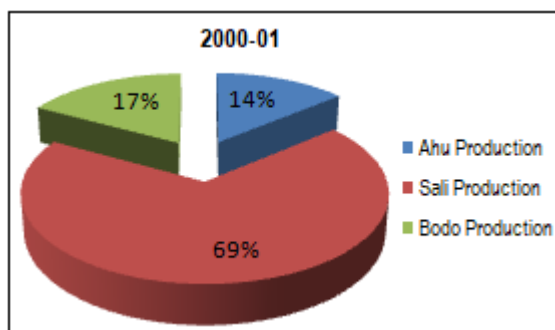


Figure 14: Yield variation of Boro Rice in Assam in the last 15 years. (Measured in Kg. per Hectare)

Out of the three crops that cover the agricultural land of the state, the first crop, i.e. Winter Rice (*Sali*) is dominating the net cropping area of the state. Every variation in the *Sali* cropping area largely influences the net cropping area of the state. The cropping area of Second Crops, i.e. Autumn Rice (*Ahu*) is showing decline for the last 15 years whereas the Summer Rice (*Boro*) is showing marginal increase in its cropping area.

In the year 2000-01 total production of *Ahu* Rice was 14% of the total rice production in Assam which has reduced to 5% over a period of last 15 years. Whereas *Boro* rice production was 17% and increased to 22% in the same period.

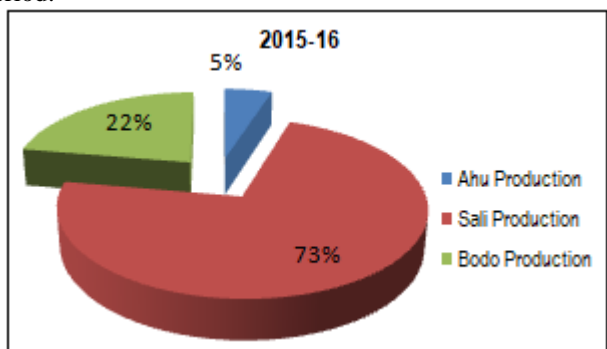


Figure 15: Yield variation of Boro Rice in Assam in the last 15 years. (Measured in Kg. per Hectare)

It is to be noted that in the year 2000-01 the contribution of second crop to the total rice production of the state was

around 31% of the total rice production. However, after 15 years the contribution of second crop to the total rice production has come down by 4 percent to reach 27% only.

All the attempts for enhancing the second crop in the state are perhaps not as successful as it is expected to. The fast reduction of autumn rice production is really hampering the proportionate growth of the rice production in the state.

### 7. Rice Requirement in the state of Assam

The assessment of rice requirement in the state is generally made on the basis of the average of per capita per day rice consumption. Whereas the consumption pattern of rice is also different from different areas. The per capita rice consumption in the rural area is more than the average per capita rice consumption in the urban area. The consumption of rice in the hilly rural area is also more than the plain rural area. Secondly, on the basis of age group also consumption pattern varies. Children and old age population do not have as much of rice consumption as that of a person of the age group 18 to 50 or so. In assessment of food grain requirement in a state, people also tend to overlook the food grain requirement of domestic animal and poultry products. The consumption and variation of rat population also is an important component to assess while assessing the food grain requirement in a state. During bamboo flowering rat population increases phenomenally influencing the rice consumption by it. In some cases bamboo flooring in a location is made responsible for the famine also.

Rice consumption in Assam is also dependent on the demographic change in terms of cultural background. The increase in the population of the state due to migration of people from the eastern and southern India to the state make really not much difference in the rice consumption pattern. Whereas, migration of central India, North India and Western India population to the state of Assam really influence the rice consumption pattern as these population is mostly non-rice eaters, The increase in such population in the state increases the flour consumption and do not affect the rice requirement in the state.

Table 5: Yearly changes of Rice Requirement in Assam

Year	Population	Requirement of Rice in MT
2001	26,656,000	4,424,896
2002	27,082,496	4,495,694
2003	27,515,816	4,567,625
2004	27,956,069	4,640,707
2005	28,403,366	4,714,959
2006	28,857,820	4,790,398
2007	29,319,545	4,867,044
2008	29,788,658	4,944,917
2009	30,265,276	5,024,036
2010	30,749,521	5,104,420
2011	31,169,272	5,174,099
2012	31,667,980	5,256,885
2013	32,174,668	5,340,995
2014	32,689,463	5,426,451
2015	33,212,494	5,513,274
2016	33,743,894	5,601,486

However, per capita per year food grain requirement is the common basis of calculating food grain requirement of a country. In India also all planning is being done on the basis of per capita food grain requirement. As per the Centre for Policy Studies, average Annual Consumption of Cereals in India per capita per year is 166 Kg.

As per the census report, the population of Assam in the year 2001 was 2,66,56,000 and hence the maximum rice requirement in the state could be estimated as 44,24,896 Metric Tons. The Rice production of the state on that year was recorded as 38,54,248 indicating deficit of 5,70,648 Metric Tons. The scenario got changed in the year 2011 when census report recorded the population of Assam as 3,11,69,272 indicating rice requirement for the year as 51,74,099 Metric Tons and the department of Agriculture, Government of Assam, recorded the rice production of Assam as 47,15,678 Metric Tons. At this stage Rice deficit in the stage has come down by more than 1.12 Lakh MT to reach 4,58,421 only. The decadal growth of population of Assam in the state was recorded as 16.93% whereas the decadal growth of Rice production in the state in the period was recorded as 22.35%. The rice production growth in the state is much more than the population growth.

Based on the decadal population growth report, the annual population growth is estimated and extrapolated on the same rate to understand roughly the year wise population growth of Assam from 2000-01 to 2015-16 and tabulated herewith. The rice requirement per year as per the population is also assessed in the Table 5.

## 8. Out-State Rice Supply to Assam for Welfare or to eradicate the local Rice Market

Various government welfare programs supply rice to the communities of Assam in highly subsidized rates. In some of the schemes it is supplied absolutely free of cost. Rice is supplied free of cost under the schemes of Mid-day-meal (MDM) to schools, Supplementary Nutrition Programs (SNP) to the *Angan Wadi* Centers (AWC) etc. The highly subsidized rice supply to Assam included Rice for Antodaya Anna Yujana (AAY), Below Poverty Line (BPL) and Above Poverty Line (APL) card holding families. The monthly food grain allocation by the Department of Food, Civil Supply and Consumer Affairs was in the tune of 1.3 Lakh Metric Tons per month. However, along with the National Food Security Act 2013, the food grain supply to the citizens changed per person per house hold basis from just flat household basis. The allocation is also divided into two categories namely, Antodaya Anna Yujana (AAY) Rice and Priority Household (PH) Rice. Along with these changes the Rice Allocation by the Food, Civil Supplies and Consumer Affairs department has increased the supply of Rice to Assam by another 37 thousand Metric Tons. At present, against AAY scheme 24,199.525 MT and against PH scheme 109,136.235 MT total 1,33,335.76 MT Rice is being supplied to Assam every month.

## 9. The Demand and Supply of Rice to Assam

**Table: 6** Year wise Excess of Rice Supplied to Assam

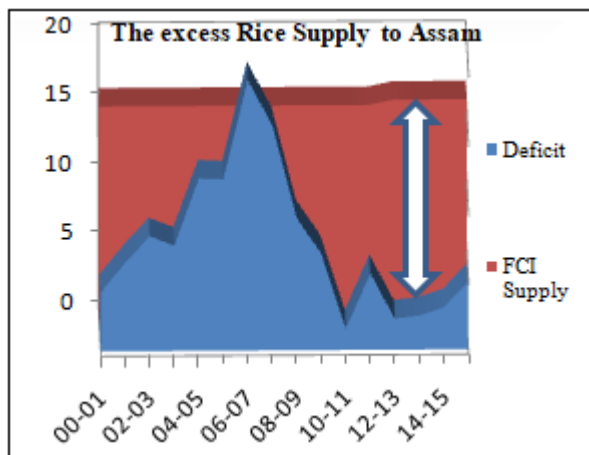
Year	Production	Deficit	FCI Supply
2000-01	3,998,443	426,453	156,2678
2001-02	3,854,248	641,446	156,2678
2002-03	3,737,802	829,823	156,2678
2003-04	3,880,934	759,773	156,2678
2004-05	3,470,746	1,244,213	156,2678
2005-06	3,552,438	1,237,960	156,2678
2006-07	2,916,014	1,951,030	156,2678
2007-08	3,318,608	1,626,309	156,2678
2008-09	4,069,986	954,050	156,2678
2009-10	4,408,424	695,996	156,2678
2010-11	5,032,574	153,517	156,2678
2011-12	4,715,678	553,391	156,2678
2012-13	5,128,508	224,866	160,0029
2013-14	5,193,379	245,649	160,0029
2014-15	5,222,645	303,407	160,0029
2015-16	5,125,104	489,365	160,0029

It is observed earlier that the rice production growth rate is around 6.5% more than the population growth rate in Assam. The year wise production of Rice in the state and corresponding deficit of it is being analyzed. It is observed that the deficit of rice was increasing from the year 2001 to reach peak in the year 2007. However, the deficit is being declined sharply after that year due to higher rice production in the state itself. It is to be noted that the production of the state is varied every year, but the supply of rice to Assam is being predetermined and fixed. As a result the rice supply become much more than the rice demand in the state hampering its local market value.

It is to be noted that the rice supplied to Assam is either distributed free or in an extremely subsidized rate. It is to be noted that more than 99% of the supplied rice to Assam is procured not from Assam but from other states of India.

## 10. System of Rice Procurement

The Central Government extends price support to wheat and paddy through FCI and State Agencies. Procurement at Minimum Support Price (MSP) is open ended i.e., whatever food grains are offered by the farmers, within the stipulated procurement period and which conforms to the quality specifications prescribed by Government of India, are purchased at MSP (and bonus/incentive, if any) by the Government agencies including FCI for central Pool. Some States also declare State bonus on wheat and paddy over and above MSP.



**Figure 16:** Yield variation of *Boro* Rice in Assam in the last 15 years. (Measured in Kg. per Hectare)

The State Governments are encouraged to adopt decentralized procurement system for wheat, paddy and rice. Under Decentralized Procurement Scheme (DCP), food grains are procured and distributed by the State Governments themselves. Under this scheme, the designated DCP States procure, store and issue food grains under welfare programs and other welfare schemes of the Government of India. The decentralized system of procurement has the objectives to ensure that Minimum Support Price (MSP) is passed on to the farmers, to enhance the efficiency of procurement and to encourage procurement in non-traditional States, thereby extending the benefits of MSP to local farmers as well as to save on transit losses and costs. This also enables procurement of food grains more suited to local taste for distribution under the welfare schemes.

Unfortunately the State of Assam has not adopted DCP for Rice when states like A&N Islands Bihar, Chhattisgarh, Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu, Uttarakhand, West Bengal, Andhra Pradesh and Telengana has adopted DCP for Rice and some other states have adopted DCP for wheat too.

It is observed that the farmers of Assam get around Rupees 1,000 only for per quintal of Paddy in the Market. Whereas the MSP recorded for Paddy in the year 2014-15 was Rupees 1,410 for common paddy and 1,450 for Grade 'A' paddy.

In a regime of non DCP, non MSP and access supply of Rice to the state, the farmers of Assam are the worst sufferers and its reflection is definitely observed in the reduction of net cropping area, migration of youth to the outer states and in many other social issues.

## 11. Conclusion

The government policies of the state and absolute lack of coordination among various relevant government departments have spoiled the local market demand of the indigenous Rice in the state. Implementing DCP in the state of Assam will definitely be remunerative for the Farmers of the state. It will also enhance rice production, cropping area, employment opportunity, rural income and proper utilization of the natural resources of the state.

The rice production-procurement ratio for the state of Assam is less than 1%, whereas, the ratio is more than 70% for the states like Haryana and Punjab. It is to be noted the staple food for these states are not Rice. Hence, production of Rice for these states is not just livelihood activities, but also an economic activity directed towards trade and market. Presumably, with more political presence in the National Politics, such states push through the initiatives that protect their farmers' economic interest. However, the political representation of the state of Assam is found to be reluctant to deal with those policies that hamper the interest of the farmers whom they represent.

State like Orissa is found to appeal to the central government to amend the procurement norms successfully so that the rice of Orissa is procured in MSP. However, no such initiatives are being observed in the state of Assam.

Rice is a water intensive crop that requires around 3 to 5 thousand liters of water per kilogram of rice production. Assam is fortunate to have abundance of the water resource both with surface and shallow sub-surface occurrences. Unfortunately, without utilizing this natural resource of Assam, the national policies are made such a way so that rice is produced in the water scarce states and supplied to already water rich state of Assam.

## 12. Acknowledgement

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## Author Profile



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