

Rice Production and Requirement Scenario in Assam- A District Level Analysis

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Paper no: 138 **Received:** 7 January, 2014 **Revised:** 15 March, 2014 **Accepted:** 17 May, 2014

Abstract

Paddy area (25.45 lakh ha) occupies more than 90% of the net cropped area (28.11 lakh ha) and 61.18% of the gross cropped area (41.60 lakh ha) during 2011-12 in Assam. Production of rice in the state was 50.45 lakh MT during 2011-12. Being the single major source of agricultural GDP, rice plays a significant role in the state economy. In Assam, rice has been the major food in the consumption basket. However, the growth scenario of rice in the state has yet to gain the required momentum. Considering the unparallel population growth in the state, the matter requires greater attention. The population of Assam has increased at an alarming rate in the last three decades. With this trend, rice requirements for the state would be 120.0 lakh tonnes by 2020. Drought, submergence and flash flooding, low resource base of farmers, and lack of proper infrastructural facilities are varied obstacles to obtain higher rice productivity in rainfed areas. There is no other way but to increase the per capita productivity of land, as there is limited scope of increasing crop area due to rapid urbanization in the state. There is need to motivate, mobilize and activate the extension programme for adoption of modern technology in every nook and corner of the state.

Keywords: Rice, production, requirement, surplus

Assam is traditionally a rice growing state. Rice has been the major staple food in the state, which was grown almost entirely on rainfed condition (Bhowmick *et al.*, 2005). The crop has enormous diversity in the region, which has resulted due to highly variable rice growing ecosystems. Besides, the region is inhabited by a large number of ethnic groups whose preferences also vary from one another. All these factors are responsible for evolution of a large number of varieties in the state. Some of the special classes of rice in the state include *joha* or aromatic rice, *bora* or waxy rice and *chokuwa* or soft rice. Although the rice yield is increasing gradually, the gap between state average (1986 kg/ha) and the national level (2240 kg/ha) during 2010-11 is also posing a serious future policy challenge (Department of Agriculture, Assam, 2011). Gaps in productivity also coincide with the food unavailability situation in the region. Considering the above facts, the present paper attempts to explore the rice production and consumption scenario in Assam.

Methodology

The study has been conducted based on secondary data. There are 27 districts in Assam and all these districts have been taken into consideration for the present study. The total production of paddy in 2011 of these twenty seven districts has been collected from the Directorate of Agriculture, Government of Assam. The total volume of paddy of each district has been converted into rice by assuming 65 % recovery of paddy to rice. The district level population of 2011 has been collected from population census report. The consumption requirements prescribed by Indian Council of Medical Research (ICMR) i.e. 427 grams of rice/day for adult and 227 grams of rice/day for minor has been considered for calculation of consumption requirements. The consumption requirement of rice per year has been calculated accordingly.

Results and Discussion

The district level population of Assam in 2011 is presented in Table 1. It can be seen that the total population is highest in Nagaon district (2826006) followed by Dhubri (1948632) and Sonitpur (1925975) districts in 2011. The lowest population has been recorded in Dima Hasao district (213529).

Table 1: Population statistics of Assam (numbers), 2011

District	Adult	Minor	Total Population
Baksa	667641	286132	953773
Barpeta	1185233	507957	1693190
Bongaigaon	512847	219792	732639
Cachar	1215423	520896	1736319
Chirang	337273	144545	481818
Darrang	635663	272427	908090
Dhemaji	481654	206423	688077
Dhubri	1364042	584590	1948632
Dibrugarh	929424	398324	1327748
Dima Hasao	149470	64059	213529
Goalpara	706271	302688	1008959
Golaghat	741072	317602	1058674
Hailakandi	461482	197778	659260
Jorhat	763907	327389	1091295
Kamrup (Rural)	1062041	455161	1517202
Kamrup (Metro)	882293	378126	1260419
Karbi Anglong	675696	289584	965280
Karimganj	851901	365101	1217002
Kokrajhar	620899	266100	886999
Lakhimpur	728451	312193	1040644
Marigaon	670497	287356	957853
Nagaon	1978204	847802	2826006
Nalbari	538943	230976	769919
Sibsagar	805177	345076	1150253
Sonitpur	1348183	577793	1925975
Tinsukia	921864	395084	1316948
Udalguri	582938	249831	832769
Assam	21818489	9350785	31169272

Source: Population Census, 2011

The total requirement of rice by districts in 2011 has been presented in Table 2. It has been found that the requirement of rice varies directly with the population. Accordingly, the requirements of rice have been recorded highest in Nagaon with highest population and lowest in Dima Hasao with lowest population.

Table 2: Requirements of rice by districts in Assam in 2011

(in MT/year)

District	Adult	Minor	Total requirement
Baksa	104055	23707	127763
Barpeta	184724	42087	226811
Bongaigaon	79930	18211	98141
Cachar	189430	43159	232589
Chirang	52566	11976	64542
Darrang	99071	22572	121643
Dhemaji	75068	17103	92171
Dhubri	212593	48436	261029
Dibrugarh	144855	33003	177859
Dima Hasao	23296	5308	28603
Goalpara	110076	25079	135155
Golaghat	115500	26315	141815
Hailakandi	71924	16387	88311
Jorhat	119059	27126	146185
Kamrup (Rural)	165524	37712	203237
Kamrup (Metro)	137510	31330	168839
Karbi Anglong	105311	23993	129304
Karimganj	132773	30250	163023
Kokrajhar	96770	22048	118818
Lakhimpur	113533	25867	139399
Marigaon	104500	23809	128309
Nagaon	308313	70245	378558
Nalbari	83997	19138	103134
Sibsagar	125491	28591	154082
Sonitpur	210121	47873	257994
Tinsukia	143677	32735	176412
Udalguri	90854	20700	111554
Assam	3400521	774759	4175280

Source: Calculated based on ICMR standard

Table 3: Status of surplus/deficit of rice (tonnes) in Assam in 2011

District	Production of Paddy	Availability of Rice	Requirement of Rice	Gap (+ve /-ve)
Baksa	160856	104556	127763	-23207
Barpeta	314276	204279	226811	-22532
Bongaigaon	100581	65378	98141	-32763
Cachar	225323	146460	232589	-86129
Chirang	77487	50367	64542	-14175
Darrang	188325	122411	121643	768
Dhemaji	98711	64162	92171	-28009
Dhubri	227100	147615	261029	-113414
Dibrugarh	162958	105923	177859	-71936
Dima Hasao	21664	14082	28603	-14521
Goalpara	196858	127958	135155	-7197
Golaghat	246271	160076	141815	18261
Hailakandi	108459	70498	88311	-17813
Jorhat	181879	118221	146185	-27964
Kamrup (Rural)	70609	45896	203237	-157341
Kamrup (Metro)	280425	182276	168839	13437
Karbi Anglong	237348	154276	129304	24972
Karimganj	150587	97882	163023	-65141
Kokrajhar	192738	125280	118818	6462
Lakhimpur	246414	160169	139399	20770
Marigaon	191079	124201	128309	-4108
Nagaon	352779	229306	378558	-149252
Nalbari	166991	108544	103134	5410
Sibsagar	222519	144637	154082	-9445
Sonitpur	359567	233719	257994	-24275
Tinsukia	128576	83574	176412	-92838
Udalguri	122194	79426	111554	-32128
Assam	5032574	3271173	4175280	-904107

Source: Authors' calculation based on secondary data collected from Department of Agriculture, Government of Assam

The gap between the availability and requirement of rice has been presented in Table 3. It has been observed that out of the twenty seven districts, there is a perceptible gap in between the availability and requirement of rice among twenty districts in Assam. Karbi Anglong district has recorded highest rice surplus district where as Kamrup (Rural) stood as the worst district in respect of rice availability. However, other seven districts viz., Darrang, Nalbari, Kokrajhar, Kamrup (Metro), Golaghat, Lakhimpur and Karbi Anglong have recorded surplus in terms of availability and requirement of rice. It has also been observed that NFSM-Rice mission has been successful in all these rice surplus districts except Kamrup (Metro) and Golaghat. Another significant feature is that the requirement of rice is felt short in Nagaon and Sonitpur districts due to massive population even these districts have recorded higher production of rice. The deficit of rice is further complicated due to the problems of natural calamities like flood, drought etc. and lack of appropriate infrastructure at the field level.

Conclusion

There is a huge gap in between the availability and requirement of rice in almost all districts in Assam except few districts. Therefore, there is a need to take immediate steps in order to increase the area, production and productivity of rice in the state. However, the Department of Agriculture, Government of Assam is implementing various schemes such as Bringing Green Revolution in Eastern India, National Food Security Mission (Rice), Rashtriya Krishi Vikas Yojana and Mission Double Cropping etc. to increase the rice production in the state. Further, the government of Assam has been taking several measures to supply rice to the people of the state through public distribution system under various schemes like 'Below poverty Level', 'Above Poverty Level', 'Antodyoya Anna Yojana' etc. Apart from that the schemes exclusively meant for increasing rice production should be properly implemented and the area under HYV rice should be encouraged and irrigation needs to be expanded for better production. Beside, the introduction of hybrid seeds can be considered as war footed action to augment and stabilize the rice production. Rice production methods like System of Rice Intensification (SRI) may be adopted to reduce the cost of production and increase the yield of rice.

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