



TRENDS OF AREA, PRODUCTION AND YIELD OF FOOD GRAINS IN NORTHEAST INDIA: AN OVERVIEW

Ajoy Limboo

Department of Economics, Dibrugarh University

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ABSTRACT-----

The Northeast India comprises of eight Indian states viz., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The agricultural sector plays a dominant role in the economy of Northeast India, contributing significantly to food security and rural livelihoods. The objective of the present study is to provide an overview of the trends in area, production, and yield of food grains in Northeast India over a specified period. This study is both descriptive and empirical in nature and primarily based on secondary data. Among the states of the Northeast, Assam is the highest in production and area under food grain crops and Mizoram is the lowest in the same. The estimates of yield have been recorded that in Manipur, the yield is the highest almost every year in this period. The study observed significant fluctuations in the overall production of food grains across the region.

KEYWORDS: *Northeast, Agriculture, Area, Production, Yield, Food grain-----*

INTRODUCTION

The North – Eastern region of India is consisted of eight states, namely, Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Tripura, Nagaland and Sikkim. Like the rest of the country, agriculture is the dominant sector of the NER, contributing about 50 per cent of the region’s income. The contribution of agriculture to the state domestic product is substantial in most of the states nearing or exceeding 50 per cent. The tourism and construction sectors in some states contribute towards lowering this proportion while mining is a specific contributor in one of the states. However, the level of agriculture productivity is low as compared to the national average. The NER’s agricultural scene is blemished by low usage of High Yielding Variety seeds and fertilizers and inadequate irrigation, infrastructure and credit facilities that gives the region a distinct advantage, as almost the entire region is organic by default.

In case of food grains, India is likely to produce 31572 million tons of food grains in 2021-22, 1.6% higher than in the previous year, with an expected record production of rice, maize, gram, pulses, rapeseed and mustard, oilseeds and sugarcane. However the North-East region produces only 3.10 per cent of national food grains production and still continues to be a net importer of food grains even for its own consumption. The productivity of land in here as compared to its potential is low.

In the North-East region (NER) of India rice is the most important food grain crop which is grown on a large scale followed by other food grains, such as maize, millet and wheat, although to a lesser extent. These food grains are an important source of nutrition and income for farmers in the region and contribute to the overall food security of the region.

OBJECTIVES

1. To study the state wise area of food grains in Northeast India
2. To analyze the growth trends of production of food grains
3. To estimates the yields of food gains in the northeastern states

DATA AND METHODOLOGY

The present study explains the trends of area, production and yield of food grains in Northeast India. This study is both descriptive and empirical in nature and primarily based on secondary data. The secondary data on production, area and yield are from 2004-05 to 2020-21 and explained in tabular form. The relevant data in relation to this study have been collected from the Handbook of Statistics on Indian states, 2021-22, published by RBI, Reports on agriculture and Horticultural Statistics published by Department of Agriculture and Farmers welfare, Ministry of



Agriculture and Farmers welfare, GOI. State wise storage capacity of food grains in Northeast India is also discussed in this study.

RESULT AND FINDINGS

The dynamics of area, production and yield of total food gains in North-East region is presented in Table 1, 2 and 3 state-wise.

Area Trend of Total Food Grains

TABLE 1: STATE-WISE AREA OF TOTAL FOODGRAINS

(Thousand Hectares)

States	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Arunachal Pradesh	192.6	198.7	202.0	200.3	203.8	198.6	200.6	205.2
Assam	2575.5	2597.5	2380.0	2518.0	2670.8	2695.6	2766.5	2763.2
Manipur	185.3	177.8	177.8	183.6	195.6	188.7	264.1	279.2
Meghalaya	136.6	125.8	128.6	130.7	132.5	132.2	132.6	133.0
Mizoram	66.0	74.0	68.5	67.1	65.8	59.6	53.7	49.2
Nagaland	255.8	263.1	294.4	302.0	283.9	282.1	298.8	295.1
Tripura	255.4	256.9	262.6	247.1	251.3	254.6	275.3	278.6
Sikkim	73.9	74.1	74.1	81.0	79.6	78.4	76.2	69.0

TABLE 1: STATE-WISE AREA OF TOTAL FOODGRAINS (Continued)

(Thousand Hectares)

States	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Arunachal Pradesh	208.6	214.3	216.5	221.8	203.5	226.7	228.2	228.8	229.0
Assam	2691.5	2659.9	2700.5	2683.1	2667.0	2643.0	2629.8	2487.7	2558.2
Manipur	174.8	283.1	285.0	269.9	304.2	297.0	293.2	207.6	284.7
Meghalaya	132.7	134.0	139.7	140.0	140.9	141.0	142.0	140.8	137.5
Mizoram	23.8	48.4	46.8	48.5	46.2	45.4	45.5	45.6	46.5
Nagaland	305.3	309.5	314.6	321.2	329.5	336.5	335.4	340.6	342.6
Tripura	267.5	271.1	273.7	294.9	317.4	318.6	312.9	308.0	313.6
Sikkim	68.9	64.9	64.7	62.5	62.7	56.4	55.1	55.2	54.7

Source: Horticultural Statistics at a Glance, National Horticulture Board, Ministry of Agriculture and Farmers Welfare, Government of India, 2012-22

Table 1 shows area under food grain crops in the Northeastern states between 2004-05 and 2020-21. Among the states of Northeast, Assam is the highest in area under food grain crops and Mizoram is the lowest in the same. The table 1 reveals that the area under food grains for the states like Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland and Tripura has increased throughout the time period and for the states Mizoram and Sikkim, it has decreased but both in a fluctuating manner. However the change is not very highly significant.

Production Trend of Total Food grains

TABLE 2: STATE-WISE PRODUCTION OF TOTAL FOODGRAINS

(Thousand Tonnes)

States	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Arunachal Pradesh	226.9	240.9	245.7	248.5	255.8	308.87	333.7	362.5
Assam	3618.2	3677.8	3060.0	3470.0	4143.0	4481.2	4876.5	4663.3
Manipur	447.8	398.5	398.5	421.8	415.0	338.9	592.7	669.8
Meghalaya	225.2	183.1	231.5	231.8	234.3	239.2	239.0	249.1
Mizoram	124.6	129.8	56.3	19.1	58.9	62.3	66.9	68.0
Nagaland	403.5	424.8	434.2	473.2	514.2	354.2	568.3	566.5
Tripura	556.4	563.6	630.0	633.3	634.7	647.9	712.4	729.9
Sikkim	103.9	100.3	100.3	111.6	107.3	117.3	110.3	103.2



TABLE 2: STATE-WISE PRODUCTION OF TOTAL FOODGRAINS (Continued)

(Thousand Tonnes)

States	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Arunachal Pradesh	369.6	384.6	409.0	327.5	343.3	359.1	365.2	373.2	377.1
Assam	5280.6	5096.8	5458.8	5358.6	4952.5	5525.9	5465.9	5236.4	5487.5
Manipur	336.7	492.6	429.3	435.7	525.1	706.5	495.0	421.4	697.1
Meghalaya	265.0	320.0	353.8	357.7	360.1	361.8	260.7	360.8	353.3
Mizoram	41.8	72.8	75.3	77.4	75.2	74.2	76.9	76.5	80.7
Nagaland	600.6	624.6	649.6	515.8	536.9	552.3	558.1	565.4	570.2
Tripura	725.2	726.7	761.5	818.3	859.6	855.4	836.3	853.3	867.6
Sikkim	106.0	102.4	102.2	94.1	101.3	93.9	92.0	92.1	91.8

Source: Ministry of Agriculture and Farmers Welfare, Government of India, 2021-22

Table 2 reveals there is an increase in production of food grains in every state other than Mizoram and Sikkim from 2004-05 to 2020-21. The increase is however not in a continuous way. Among the states production of food grains is the highest in Assam and in Mizoram; it is the lowest in almost every year. The dominant features of hill and mountain farming in Mizoram like small land holdings, sloping marginal farmlands and cultivation under rain fed farming put Mizoram in the lowest place.

Yield Estimates of Total Food Grains

TABLE 3: STATE-WISE ESTIMATES OF YIELD - TOTAL FOODGRAINS

(Kg. per Hectare)

States	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Arunachal Pradesh	1178	1212	1216	1241	1255	1555	1663	1767
Assam	1405	1416	1486	1378	1551	1662	1763	1704
Manipur	2417	2241	2241	2297	2236	1796	2244	2397
Meghalaya	1649	1455	1800	1774	1783	1809	1803	1873
Mizoram	1888	1754	822	285	998	1045	1246	1382
Nagaland	1577	1615	1482	1567	1811	1256	1902	1920
Tripura	2179	2194	2399	2563	2526	2545	2587	2620
Sikkim	1406	1354	1354	1378	1351	1496	1448	1495

TABLE 3: STATE-WISE ESTIMATES OF YIELD - TOTAL FOODGRAINS (Concl'd.)

(Kg. Per Hectare)

States	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Arunachal Pradesh	1772	1795	1889	1476	1687	1584	1600	1631	1644
Assam	1962	1916	2021	1997	1857	2091	2078	2105	2145
Manipur	1926	1740	1506	1468	1726	2379	1788	2030	2448
Meghalaya	1997	2389	2532	2555	1846	2565	1835	2562	2570
Mizoram	1756	1506	1607	1595	1619	1634	1691	1676	1736
Nagaland	1967	2018	2065	1606	1629	1641	1664	1660	1664
Tripura	2711	2680	2783	2775	2709	2685	2673	2770	2767
Sikkim	1537	1577	1579	1507	1616	1665	1669	1669	1676

Source: Ministry of Agriculture and Farmers Welfare, Government of India, 2012-22

In the above table 3, per area harvest, that is, yield of food grains of the Northeastern states are revealed for the time period 2004-05 to 2020-21. The estimates of yield show that in Manipur, the yield is the highest almost in every year in this time period. When many states in India are gradually moving away from their traditional agriculture-based to industry or service-oriented economy, Manipur continues to depend on the agricultural sector, especially the rice crop. The crop's yield level is found to be much higher than that of the national level, but the irrigation system in Manipur is not fully developed and therefore, has to depend on the rain water.



CONCLUSION

North-Eastern region produced a total of 5.2 million tons of food grains from an area of 3.78 million hectares during 1998-99 as revealed in the reports of Department of Agriculture and Farmers Welfare. Thus, the average productivity of the region during the above period has been around 1377 kg/ha, which is much below the national average of 1620 kg/ha. The population growth is higher than the growth in food grain production in the region. The region faces a deficit of 2 million tons of food grains, which is met by imports from other parts of the country. It drains the capital out of the region. This can, however, be curbed by making the region self-sufficient in food grains. The grain harvest of NE region in the post-Green Revolution era has continued to rise till now; yet per capita production flattened because of population growth.

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