

Ad-hoc Study No. 7.

The Behaviour
of
AGRICULTURAL PRICES IN ASSAM
1952-64.

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JORHAT : ASSAM

PREFACE

This study on the Behaviour of Agricultural Prices in Assam - 1952 to 1964 was taken up at the instance of the Economic and Statistical Adviser, Ministry of Food and Agriculture, Government of India. "A Note on the Price Behaviour of Rice in Assam - 1952-62" was prepared earlier and the present study is a sequel to that Note. It now covers the prices of Jute, another important crop of Assam. This is, however, the maiden attempt to have a study of agricultural prices in Assam.

The statistical data used in the study were collected from both published and unpublished records as available from the Directorates of Economics and Statistics, Ministry of Food and Agriculture, Government of India and Government of Assam. The Centre is thankful to the departments for making available the records to our investigators.

Though the present study is based on official data, certain interesting results have come out through their analysis. These results are expected to be helpful for policy decisions. But it should be remembered that the Government agencies for collection of price data are not expected to report the prices prevalent in the un-controlled or black markets. During the period of control, un-controlled prices were substantially higher than controlled prices. This might be the one of the reasons of failure of the State Trading Scheme. It is, therefore, necessary to have reliable price data of both controlled and un-controlled markets.

This study has covered the period from 1960 to 1964 when the State Trading Scheme of the State Government was in operation. Some observations are made in the text of this study.

Like all other studies of this Centre, the present one is also a joint product. Under my general guidance Shri N. Saha, Research Officer has painstakingly endeavoured to make this study interesting and fruitful. He was supported by Sarvashri C.K. Bora, Senior Research Investigator, D.K. Buragohain, Junior Research Investigator, M.D. Barkataky, Junior Research Investigator and A.P. Baruah, Senior Computer, among others, in the collection and tabular and graphical presentation of data. The mimeography was done by Sarvashri V.N. Narayana Menon, Stenographer and A.K. Chakravarty, Typist with Shri N. Deka, peon who operated the duplicating machine.

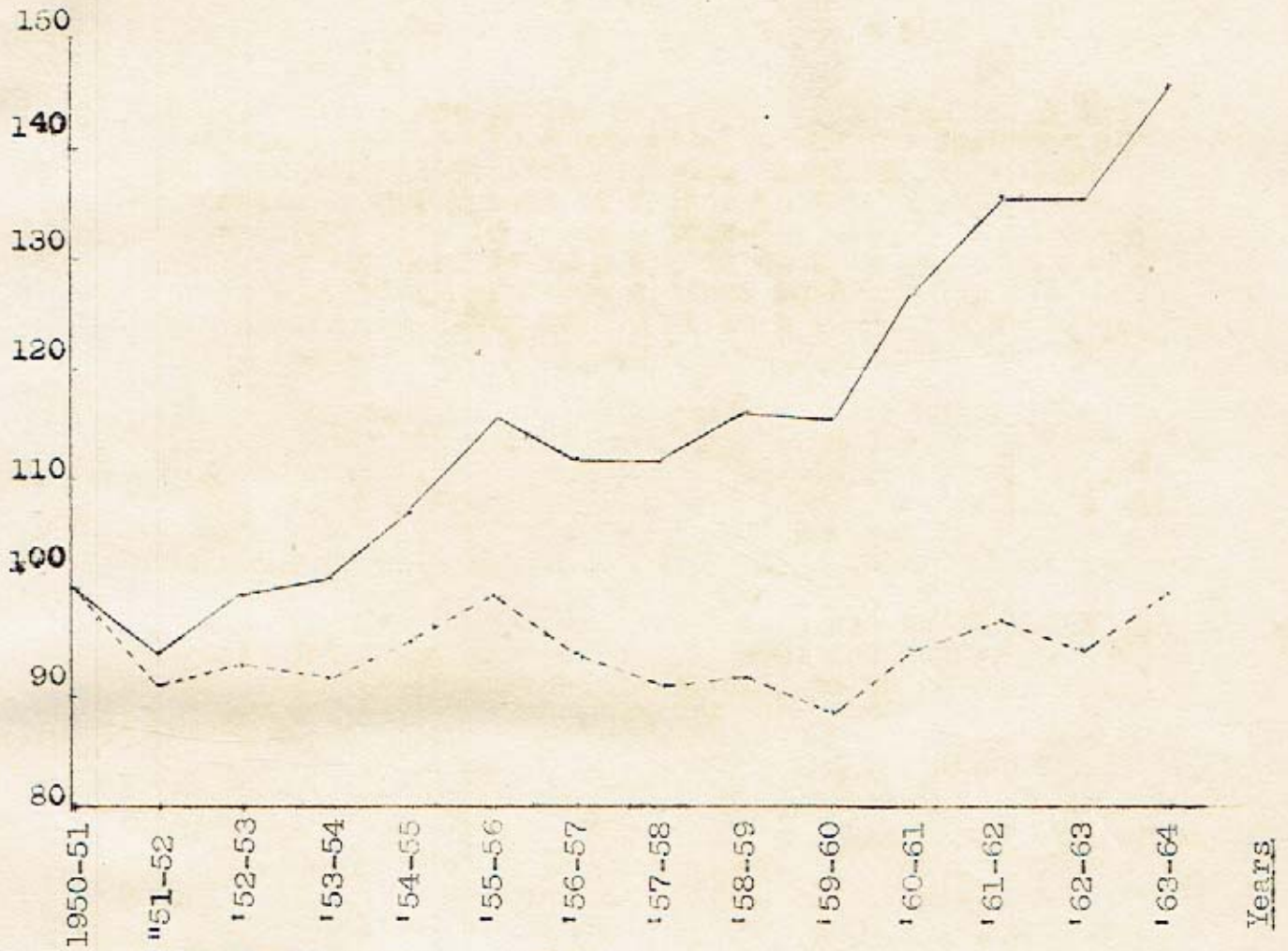
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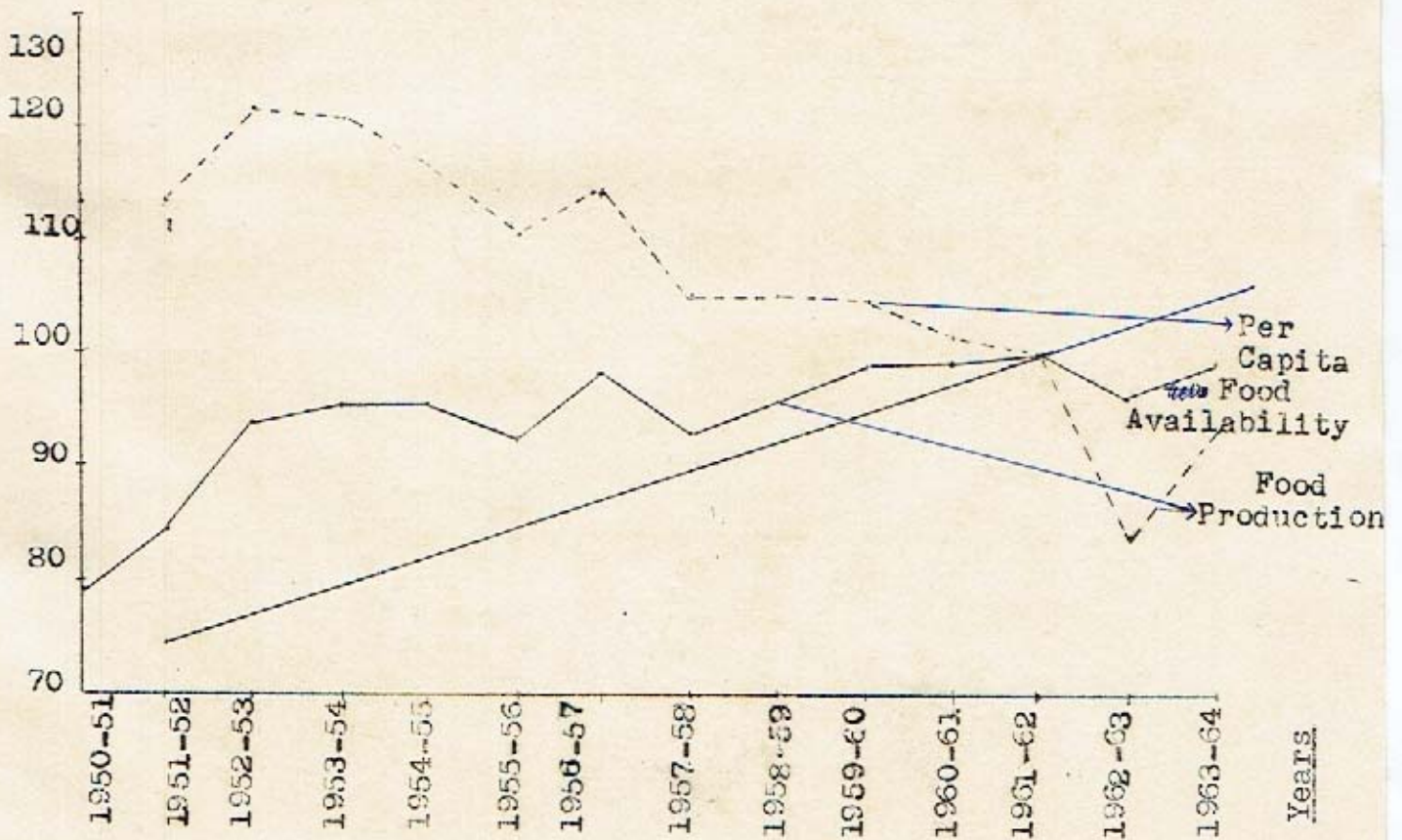
State (National) Income (—) & Per Capita Income (----)
 (Base 1950-51 = 100)

Index



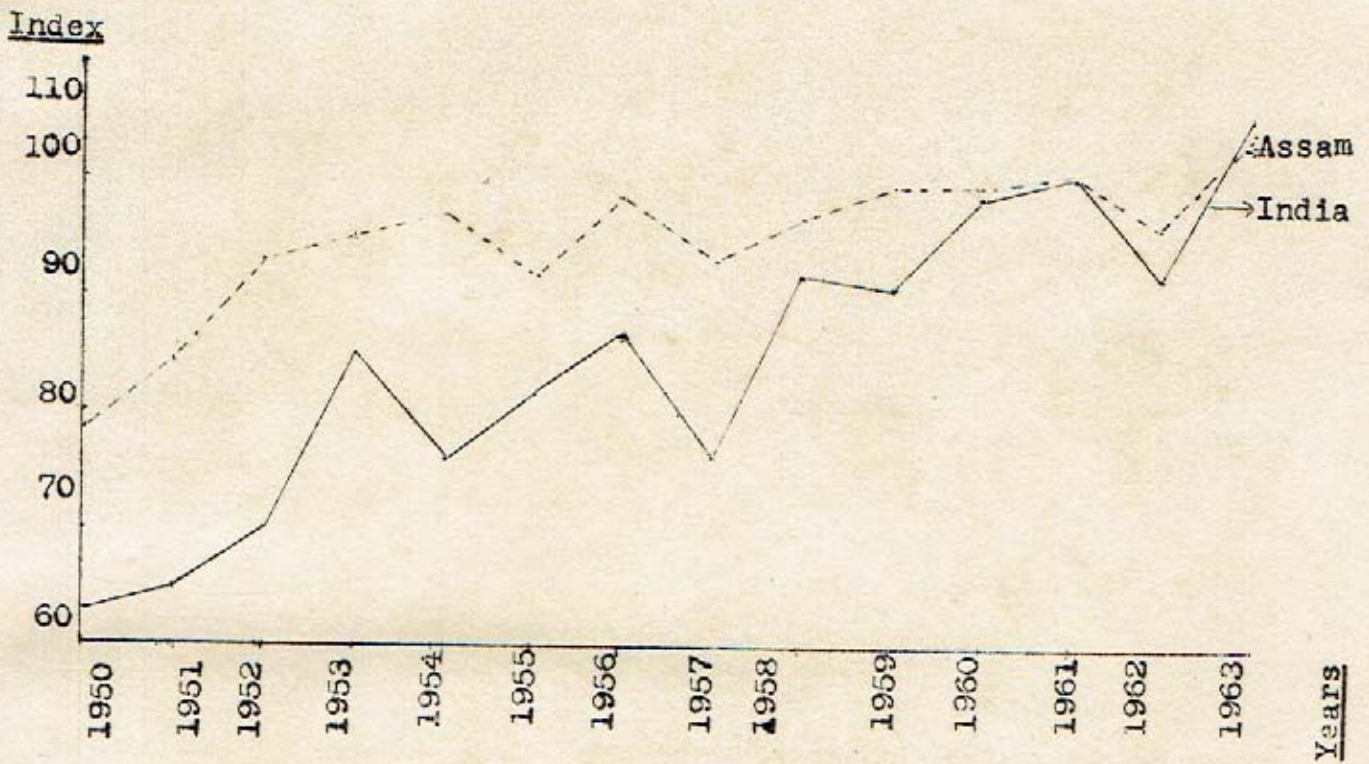
Food Production and Per Capita Food Availability
 (Base 1961-62 = 100)

Index



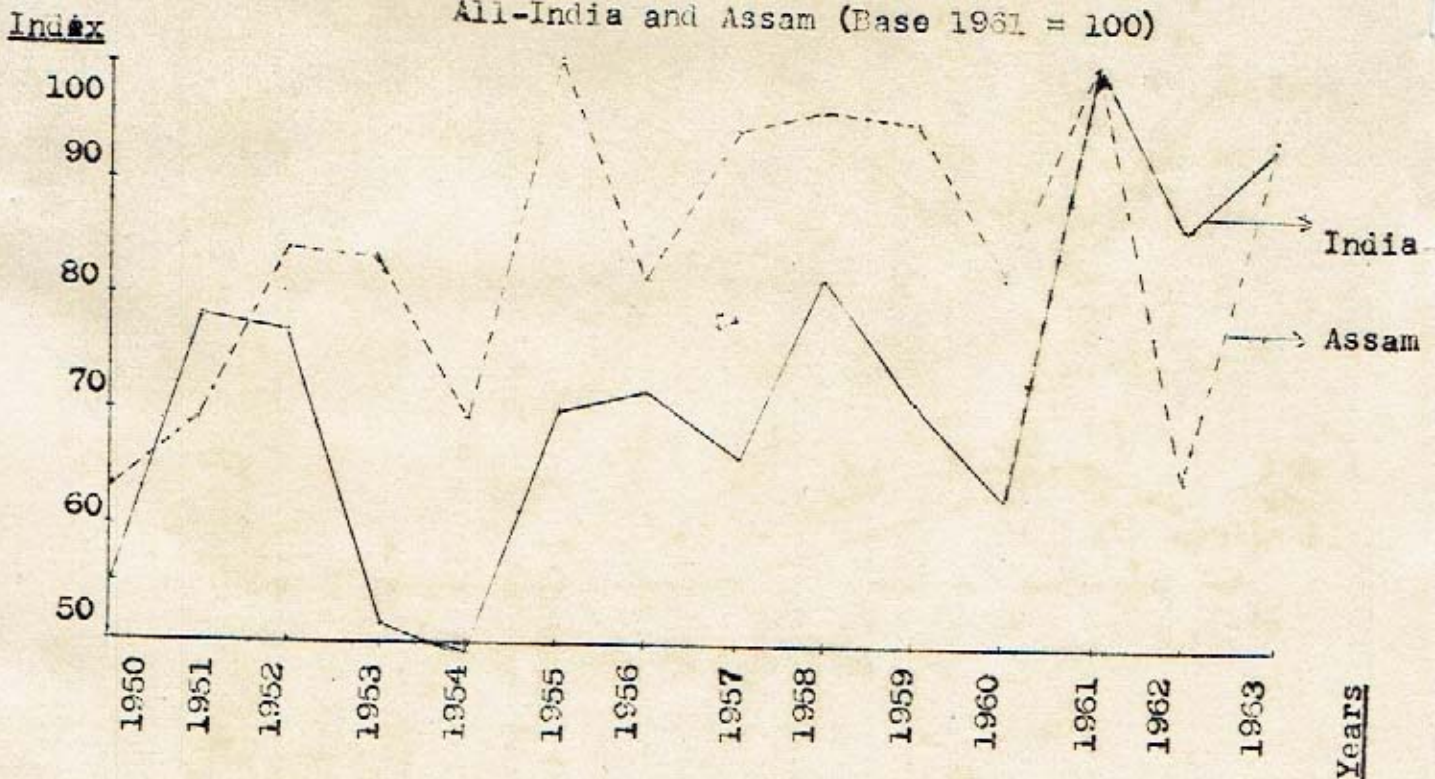
PRODUCTION OF RICE

All-India and Assam (1961 = 100)



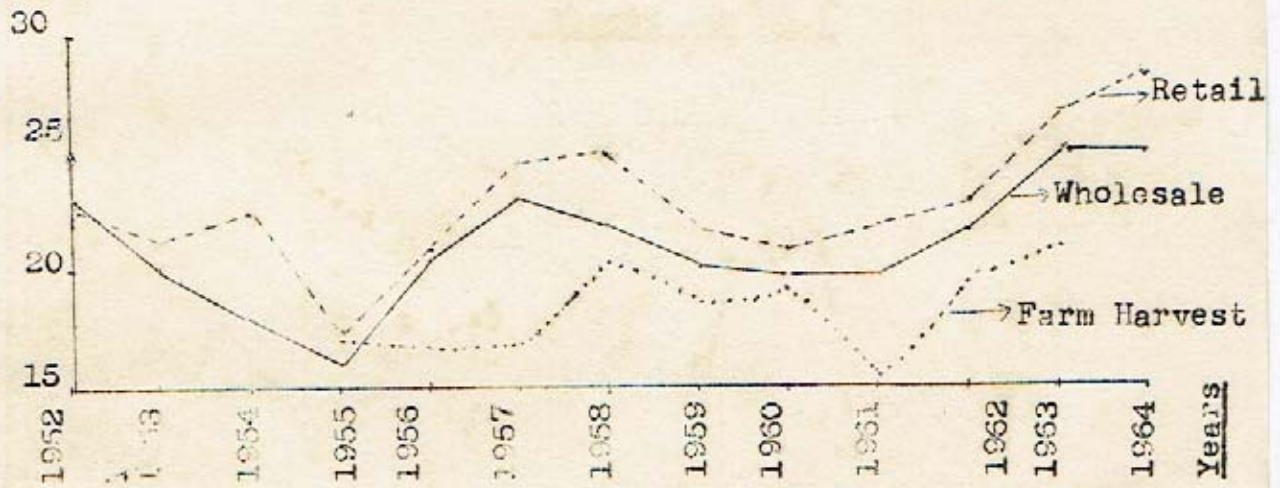
PRODUCTION OF JUTE

All-India and Assam (Base 1961 = 100)



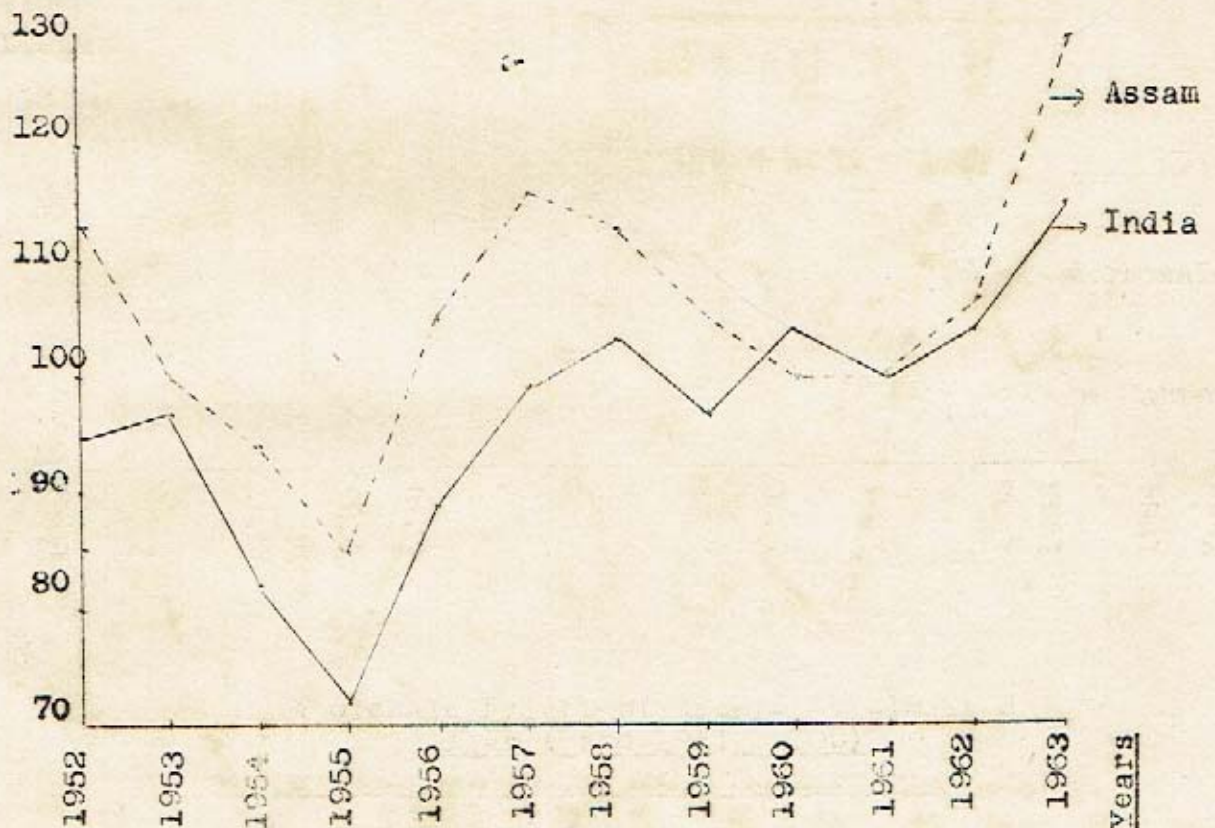
Farm Harvest, Wholesale and Retail Prices
of Rice in Assam
(In Rupees per Md.)

Prices



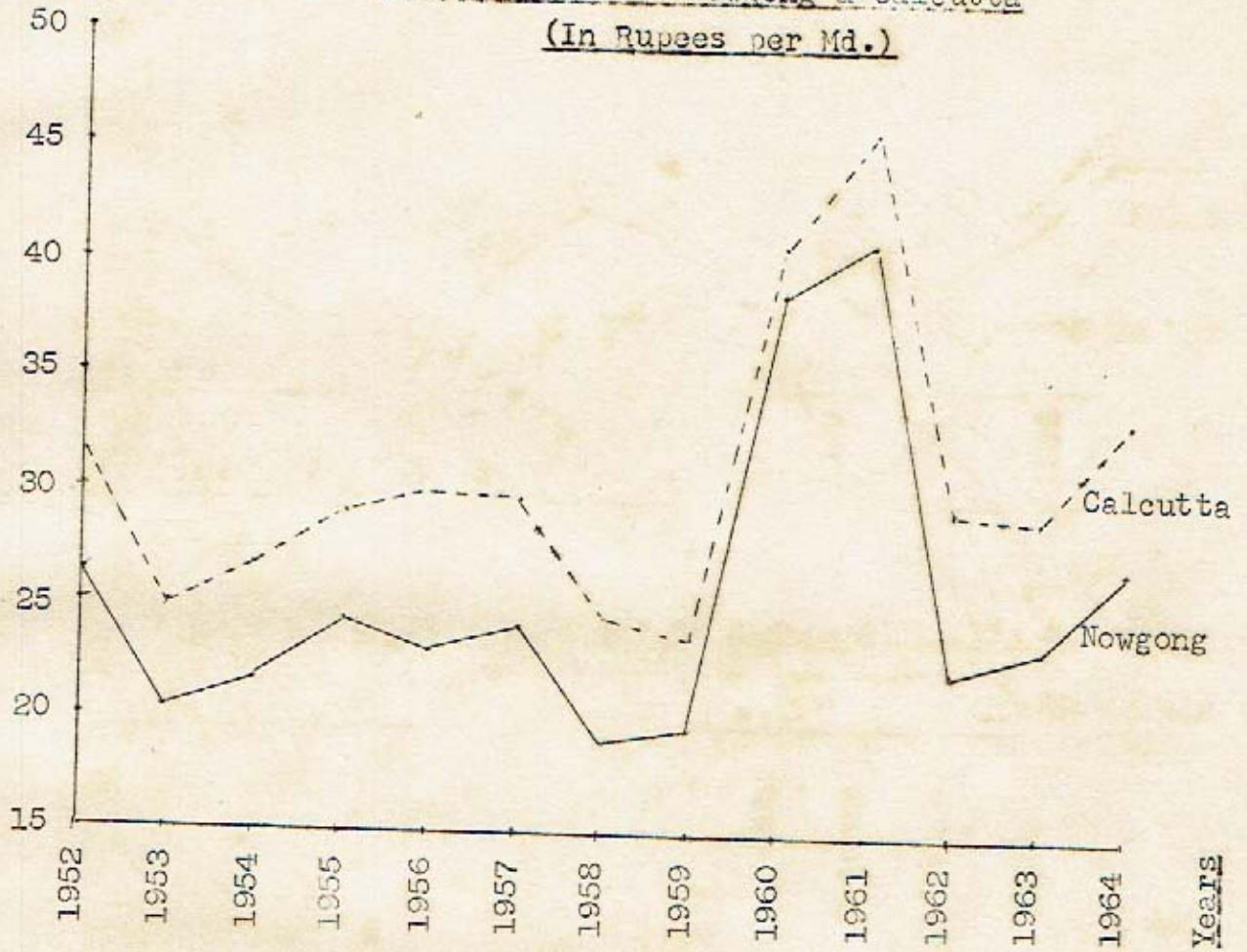
Wholesale Prices of Rice - All-India &
Assam (Base 1961 = 100)

Index

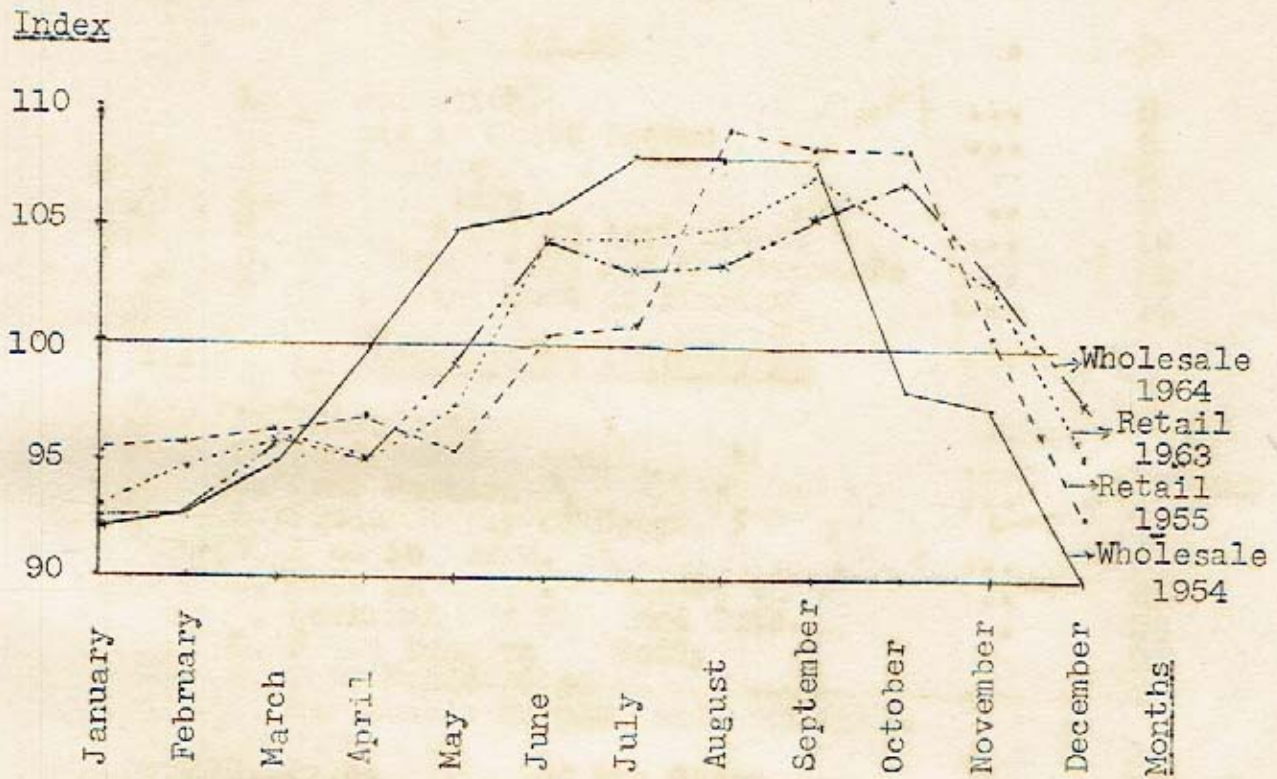


Prices

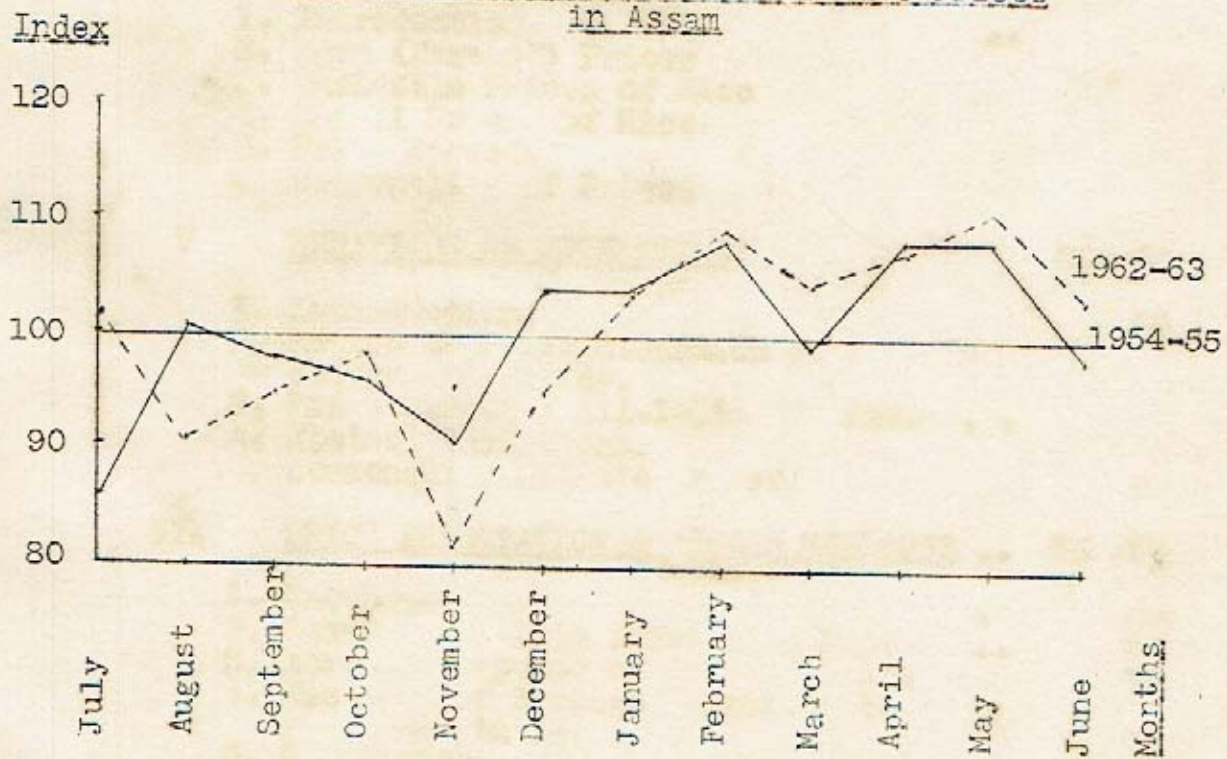
Prices of Jute : Nowgong & Calcutta
(In Rupees per Md.)



Seasonal (Monthend) Index of Whole Sale & Retail
Prices of Rice in Assam



Seasonal (Monthend) Index of Jute Prices
in Assam



CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
I. <u>INTRODUCTION</u>	... 1 -4
1. Scope.	... 1
2. Methodology and Sources of data.	... 1
3. Reliability of data....	... 2
II. <u>THE ECONOMY OF ASSAM</u>	... 5 -16
1. Introduction.	... 5
2. Trends in State Income.	... 6
3. State Budget.	... 9
4. Plan Outlays.	... 9
5. Growth Rates in Agriculture.	... 10
6. Food Production and Requirements.	... 12
7. Prices and Cost of living.	... 14
III. <u>DEVELOPMENTS IN AGRICULTURE</u>	... 17 -37
1. Introduction.	... 17
2. Land Utilisation.	... 17
3. Crop Pattern.	... 19
4. Productivity of Crops.	... 20
5. Rice in Assam.	... 22
6. Jute in Assam.	... 26
7. Marketing of Rice and Jute.	... 28
8. State Trading in Paddy.	... 29
9. Fair Price Shops.	... 32
10. Marketable Surplus and Marketed Surplus.	... 33
11. Price Policy of the State Govt.	... 37
IV. <u>BEHAVIOUR OF RICE PRICES</u>	... 38 -55
1. Introduction.	... 38
2. Farm (Harvest) Prices.	... 39
3. Wholesale Prices of Rice.	... 42
4. Retail Prices of Rice.	... 47
5. Price Spread.	... 50
6. Seasonality of Prices	... 52
V. <u>BEHAVIOUR OF JUTE PRICES</u>	... 56 -64
1. Introduction.	... -56
2. Review of Price Situation of Government Policy.	... 58
3. Price Trends : All-India and Assam	... 60
4. Spatial Variations.	... 62
5. Seasonality of Jute Prices.	... 63
VI. <u>PRICE EXPECTATION & ACRAGE RESPONSE</u> ..	65 -74
1. Introduction.	... 65
2. Response of Jute Acreage to Prices	... 68
3. Acreage Response of Rice to Prices	... 70
4. Response of Acreage Relatives to Price Relatives.	... 71
5. Conclusion.	... 73
VII. <u>CONCLUSION</u>	... 75- 80
<u>STATISTICAL STATEMENTS</u>	... I - LIX

CHAPTER ONE

INTRODUCTION

1. Scope

1.1. The study on agricultural prices in Assam forms a part of a more comprehensive study of agricultural prices in India. Similar regional studies are also undertaken by different Agro-Economic Research Centres of the country. This study covers the period from the beginning of the First Five Year Plan in 1951-52 upto the end of December, 1964.

1.2. The term, 'agricultural price' has a wide connotation. It includes prices of both factors and products of agriculture at different levels of marketing. Here in this study the term has been used in a limited sense. It connotes for the purpose of this study the prices of the products only. As prices of all the agricultural crops are not available in a continuous series, this is confined to the study of Rice and Jute, the two most important crops of this state.

2. Methodology and Sources of Data

2.1. For the study of prices of crops, a few markets have been selected on the basis of the availability of price data. The data used in this study are collected from the Directorate of Economics and Statistics, Ministry of Food and Agriculture, Government of India as published in their

annual publication, 'Agricultural Prices in India', and supplemented by unpublished data from the same sources. The second important source of data is the Directorate of Economics and Statistics, Government of Assam. The sources of data have been quoted in appropriate places.

2.2. The price analysis is confined to Farm (harvest) Prices of Paddy, Wholesale and Retail prices of Rice and Wholesale prices of Jute. The price analysis are again confined to the study of trends and seasonal and spatial variations. For the purpose of uniformity price indexes have been constructed with annual average of 1961 prices.

2.3. Before taking up the study of Prices of Rice and Jute in Chapter **IV** and **V** respectively, an attempt has been made here in ~~Chapter III~~ to give a bird's eye view of Assam's economy. In Chapter ~~III~~ a somewhat close analysis is made of the developments in Agriculture in Assam. These discussions are expected to throw some light on the chief indicators of economic developments having impact on agricultural prices. For the analysis of the State's economy, the data have mostly been collected from the publications of the Directorate of Economics and Statistics, Government of Assam.

3. Reliability of data

3.1. It is very difficult to comment on the reliability of data collected from secondary sources. But without a word on their limitations and reliability, there may be misgivings in the minds of the readers. It is to be appreciated that the whole process of collection, processing and presentation of data by an agency is bound to be complex. The collection of price data of agricultural commodities has certain grave limitations, particularly when there is

a chance of **subjective** evaluation by reporting agencies due mainly to the absence of proper gradation of commodities and standardation of weights and measures in the markets.

3.2. Here in this study prices of coarse variety (common) of winter Sali Rice have been studied. It has been observed that in certain cases only the prices fixed for the fair price shops, while in others the open market prices have been reported. Fair price shops does not cover even 5% of the state population and as such they are not representative of the price of the variety under study. It has been observed that the index of seasonal variations (standard deviation) have been markedly less in the cases where fair prices have been reported. (It is less than 1 in such cases). Similarly in the case of Jute there has been confusion over the gradation into middle and bottom. But one redeeming feature of Jute prices is that it relates only to one Centre (Nowgong) in Assam and the same agency might have collected the data.

3.3. The data on the selected indicators of the economy of Assam have mainly been taken from the publications of the State Directorate of Economics and Statistics. It is to be noted that there have been vast improvements in the coverage and publication of data in Assam. But the index numbers of different time series data constructed by the Directorate are not based on the same base year, as for example, State (National) income is based on 1950-51, Agricultural production on 1956-57, wholesale prices on 1953, consumers prices (working class) on 1949, thus impairing their strict comparability.

1. Cf. Basic Statistics Relating to Assam's economy
- 1950-51 to 1961-62.

3.4. Another aspect of available data is that the estimate of productivity of crops is mainly done through eye-appraisal method except in Rice, in which case the sample crop cutting surveys have ^{been} carried out since 1951-52 to estimate the productivity ². Again, the area under crops is reported generally by Land Records staff like Mandals (equivalent to Patwaris) or Kanungoes. It has been found in the course of the Village Surveys conducted by this Agro-Economic Research Centre that the land record staff do not give due importance to this additional work and there is much scope for improvement of the quality of data. Another defect of such reporting is that they do not include the area under illegal occupation done with or without connivance of such petty officials.

3.5. It has also been noted that there are certain very important gaps ⁱⁿ statistics relating to the Hill Districts of Assam. In these districts, the prevalent system of agriculture is jhuming, a form of shifting cultivation in hill slopes. Under this, multifarious crops are grown from the same field and it is very difficult to ascertain the area ^{under} each crop. As such data on area and production of crops in the Hill districts are to be viewed with these limitations in mind.

CHAPTER TWO

THE ECONOMY OF ASSAM.

1. Introduction.

1.1. Assam with her sister States and Territories of North-East India has a unique position in Indian Union being bounded on all sides by foreign countries like Burma, Pakistan and Tibet (China) and connected by a narrow corridor passing through the foothills of the Himalayas in West Bengal. This peculiar isolation on the one hand, and the hostility of the two neighbours, on the other, have underlined the importance of the rapid economic growth of this region.

1.2. Assam occupies about 122 thousand square kilometres (47,091 square miles) of Indian territory with 118.3 lakhs of population in 1961. She is divided into eleven administrative districts of which seven belong to the Plains and 4 to the Hills. The Hill Districts occupy more than 48% of the total geographical area with only 11.1% of the State population. Thus the average density in the Plains Districts is quite high with 167 persons per square kilometre against only 22 persons in the Hills. In the 1961 Census, Assam recorded the highest rate of population growth (except Tripura where there was heavy influx of refugees) with 34.45% between 1951 and 1961. While in the Hills Districts, there might be some under-enumeration in 1951, in the Plains Districts, this unusual growth rate may be ascribed partially to immigration from Pakistan. The decennial growth rates of population in the districts of Goalpara (39.32%), Kamrup (38.39%), Darrang (39.64%), Lakhimpur (38.85%) and Nowgong (36.51%) are markedly higher than those of the districts of Sibsagar (24.45%) and Cachar (23.53%). It can, therefore, be safely said that the natural growth rate (births-deaths) of Assam should not go beyond the average growth rate of India (21.50%). The additional increase is mainly through immigration

to Assam from East Pakistan and other States of Indian Union. While the Pakistani infiltrators are mostly agriculturists and have settled in the rural areas, the immigrants from other States and the refugees are concentrated in the towns.

1.3. Assam is mainly a rural State. Even in 1961 only 7.69% of her population lived in towns against only 4.65% in 1951. The rate of urbanisation is, of course, quite impressive as during the decade, 1951-61, the urban population increased by 122.53%. Amongst the districts, the highest rate of urbanisation is recorded by Kamrup with 197.10%, followed by Goalpara (151.40%) and Lakhimpur (146.21%). In Statement I in the Appendix, districtwise data on area, population, density and decennial rate of population growth and urbanisation have been given.

2. Trends in State (National) Income:

2.1. Against an unprecented growth of population, the economic growth as reflected in the State (National) Income is not encouraging. The Index Numbers of State (National) Income and Per Capita Income--both at current and constant prices--are presented in Table 2.1 for three points of time corresponding to the end of the First and Second Plans and third year of the Third Plan with 1950-51 as the base.

TABLE 2.1

INDEX NUMBERS OF STATE (NATIONAL) AND PER CAPITA INCOME.

	(Base 1950--51)		
	1955-56	1960-61	1963-64
1. <u>State Income.</u>			
(a) At current prices	107.7	142.7	177.0
(b) At 1948-49 prices	114.7	126.8	145.2
2. <u>Per Capita Income.</u>			
(a) At current prices	94.3	107.0	122.0
(b) At 1948-49 prices	104.9	99.2	104.6

It will be evident from Table 2.1 that in between 1950-51 and 1960-61, the State (National) Income rose only by 26.8% at constant prices. This is reflected in the decline in the per capita income at constant prices which has gone down by about 1%. In between 1955-56 and 1963-64, the per capita income remained almost in the same level. This is to be viewed against the implementation of the two Five Year Plans with a total outlay of Rs. 79.61 crores and completion of the 3rd year of the Third Plan.

2.2. The State (National) Income data from 1950-51 to 1963-64 are presented in Statement II in the Appendix. This slow rate of growth of State (National) Income will be apparent from the share of different sectors of the economy. In Table 2.2, the percentage distribution of State (National) Income by industrial origin is given. It will be found that Agriculture (including Animal Husbandry, Fishery and Forestry and excluding Tea industry) continues to contribute the major share. While its importance is on the decline the benefit has not gone to Industrial sector, viz. Mining and Manufacture. That the Other Services have been gaining advantage over Agriculture and Industry, is an indication that the growth of the State economy is not in the right direction.

TABLE 2.2
PERCENTAGE DISTRIBUTION OF STATE INCOME BY INDUSTRIAL ORIGIN.

	(At current prices)			
	1950--51	1955-56	1960-61	1963-64 ²
1. Agriculture etc.	55.4	47.0	45.5	44.4
2. Mining & Manufacture.	27.8	30.3	27.1	26.7
3. Commerce, Transport communication.	9.7	12.0	14.6	14.7
4. Other services	7.1	10.7	12.8	14.2
TOTAL:	100.0	100.0	100.0	100.0

Source: Directorate of Economics and Statistics, Assam.

² Quick provisional estimate.

Contribution of Industries

2.3. The Index Numbers of State (National) Income at current prices from Mining and Manufactures rose with 1950-51 as the base, to 116.3 in 1955-56, 139.4 in 1960-61 and 170.0 in 1963-64. The Index of General Wholesale Prices during these periods rose to 151.2 in 1960 and 149.1 in 1963 with 1953 as the base. Thus the actual industrial growth seems to be quite nominal. It is evident from the State (National) output at constant prices (1948-49 prices) which rose to 64.4 crores in 1955-56, to 71.8 crores in 1960-61 and Rs. 86.6 crores in 1963-64 (provisional estimate) from Rs. 55.4 crores in 1950-51. With 1950-51 as the base, the index numbers will be 116.2 in 1955-56, 129.6 in 1960-1961 and 156.3 in 1963-64 (Provisional). Thus in between 1950-51 and 1960-61, the annual rate of growth of industrial production in real terms is less than 3%, though subsequently the rate has been exhilarated approaching to 5%.

Contribution of Agriculture.

2.4. In 1961 Census, 64.7% and 3.6% of the total working population have been recorded as cultivators and agricultural labours respectively. The percentage of total population dependent on agriculture is thus about 70% against 82.31% of the total population of the State living in 25,702 villages³. Agriculture contributed 55.4%, 47.0%, 45.5% and 44.4% of the State (National) Income at current prices (Table 1.2) in 1950-51, 1955-56, 1960-61 and 1963-64 (provisional estimate) respectively. As agriculture occupies such an important position in the State's economy, the economic progress of the State lies much in the development of agriculture.

³ According to 1961 Census

3. State Budget.

-9-

3.1. The Receipts and Expenditures of the State Government are given in Statement III and IV in the Appendix. During the period from 1951-52 to 1964-65, the total receipts and expenditures of the State Government increased by about 6 times. With 1951-52 as the base, the Index Numbers of Revenue and Capital receipts of the State Government rose to 208.0 in 1956-57, 356.0 in 1961-62 and 529.0 in 1964-65 (Budget Estimate). Against a nominal surplus budget in 1951-52, the State Budgets have continued to be deficit in subsequent years, the overall deficit rising at an increasing rate from only Rs. 7 crores in 1956-57 to about Rs. 11 crores in 1964-65 (Budget estimate). Another aspect of the State Budget is that in the Revenue Account, Tax-revenue accounts for 48.72% of the Budget in 1964-65--of which 13.55% represents State share of Central Taxes. The balance comes from other State revenue (10.83%) and Central grants (40.45%).

3.2. These developments have come about with the increased tempo of development works and extension of social and health services. Expenditures on general services rose by about 374.6%, social services by 604.0% and Development services by 604.0% in 1964-65 from those in 1951-52. The net capital expenditure rose from only Rs. 52 lakhs in 1951-52 to Rs. 6,81 lakhs in 1964-65. This tremendous increase in expenditure has not been equally matched by taxation and production which could only have eased the rising trends in prices.

4. Plan Outlay.

4.1. Assam had a total Plan provisions of Rs. 21,67.48 lakhs in First Plan and Rs. 57,93.69 lakhs in the Second Plan of which Rs. 20,50.80 lakhs (94.62% of the total provision) and Rs. 52,51.67 lakhs (90.64% of total provision) were actually spent. Against this, the Third Plan has made a total provision of Rs. 120 crores. In Statement V in the Appendix, sectorwise actual outlay of the First and Second Plans and the Provision of the Third Plan are presented.

Considering the available resources in the background of an undeveloped state of the economy, actual expenditures in the first two plans for mining and manufactures were too meagre, accounting only for 0.5% and 8.0% of the total expenditure in the first two Plans. The Third Plan provision for industry and mining of Rs. 9.75 crores representing 8.1% of the total Plan provision of 120.00 crores are also quite nominal. Agriculture and Community Development were given due importance and the quantum of expenditure rose by more than 3 times in the Second and 5 times in the Third Plan from that of the First Plan.

5. Growth Rates in Agriculture.

5.1. Though agriculture has thus been given high priority in the plans, the over-all growth of agriculture in the State is quite halting. In a recent study on the pattern of agricultural growth in India⁴, it has been found that Assam, amongst the States with the exception of Orissa, has the lowest rate of growth. The growth rates (with index numbers) in agriculture from 1952-53 to 1961-62 for Assam have been given in Statement VI in the Appendix⁵. The summary Table 2.3 gives the linear growth rates of Rice, Jute, total foodgrains and Non-foodgrains and All-crops of Assam and All-India⁵.

TABLE 2.3

Linear Growth Rates in Agriculture, 1952-53 to 1961-62 Assam and All-India.

Crops	Assam			All India		
	Area	Production	Productivity	Area	Production	Productivity.
All crops	1.55%	1.34%	(-)0.20%	1.31%	3.23%	1.76%
Foodgrains	1.56%	0.57%	(-)0.90%	1.10%	2.66%	1.45%
Non-food-grains.	1.52%	2.00%	(+)0.42%	2.38%	4.40%	1.74%
Rice	1.54%	0.58%	(-)0.87%	1.49%	3.29%	1.63%
Jute	2.22%	2.52%	(+)0.42%	3.74%	4.82%	0.88%

Source: Growth Rates in Agriculture, Ministry of Food and Agriculture.

4. Growth Rates in Agriculture, E.S.A., Ministry of Food & Agrl. Govt. of India, December, 1964.

5. Op. Cit. Tables 6, and Appendix- 5 13

This means that while population has been growing at the rate of 3% per annum, agricultural production has been growing by only 1.34%. This should be viewed against 3.23% for All-India and 5.62% for the Punjab in respect of agricultural production. A further analysis will show that whatever growth has been recorded in production has come mostly from growth in area, which means that new land has been brought under cultivation. It is also clear that the productivity of agriculture in general has been declining. The decline in food-grains productivity is the highest at about 0.9% per annum.

5.2. If a still longer view is taken of the growth in agriculture from 1949-50 to 1963-64, the position will look distressing. The available data on the index numbers of production in Assam with 1949-50 as the base are presented in Statement VII in the Appendix. Table 2.4 summarises the data.

TABLE 2.4.

Index Numbers of Agricultural Production, Assam (Base 1949-50)

Years	Rice	All Food-grains.	Jute	All-Non-Food crops	All crops
1950-51	81.06	81.39	72.12	89.19	85.72
1955-56	94.34	94.33	122.10	96.96	95.79
1961-62	102.21	102.16	121.77	111.45	107.33
1963-64	106.70	106.86	113.85	103.57	105.04

Source: Directorate of Statistics, Assam.

To understand these slow growth rates, one should of course, have a historical perspective. The agricultural year, 1950-51 is the worst in the recent past. The great earthquake of 1950 caused extensive damage to standing crops. After earthquake came floods of high magnitude. This is why agricultural production fell by about 15% in 1950-51. The overall position was so bad in the

the State could hardly recover from the shock. At the end of the Second Plan in 1961-62, the agricultural economy seemed to have come out of the impasse. Nevertheless, the over-all performance of agriculture, particularly in food production, during the planned period is not so encouraging as one should expect.

6. Food Production and Requirements.

6.1. While discussing growth rates in agriculture, it was found that the agricultural economy of Assam is highly food-oriented. Food crops occupy more than 80% of the total cropped area and contribute income of similar magnitude to the total agricultural income of the State. In Statement VIII in the Appendix, data on area and production of different food crops for the period from 1951-52 to 1963-64 have been given. It will be apparent that Rice is the main food crops. Against 4633 thousand acres under all food-grains Rice occupied 4557 acres in 1963-64.

6.2. In Table 2.5 a rough food budget of Assam has been given. The mid-year population for inter-censal years has been taken from the estimates done by the Registrar General of India⁶. The post-censal estimate has been done at 2% compound rates of growth. On the whole, the population of Assam has been growing at the compound rate of 3% per annum. Against that the food production has been growing at about 0.5% annually. This continuing gap in the growth of population and food production has created a large deficit in the food budget of Assam. Making a provision of 12½% of the total production as seed requirements, wastage and damage in store, the net availability of food from production in the State is given in column 4 of Table 2.5. Against the available food supply, the annual requirement of food has been calculated at 16 ounces (453.6 grams) per capita per day and given in column 5 of the same Table. If the food

6. Ref. Statistical Abstract of Indian Union, 1962, C.S.O.

production data as presented in Statement VIII in the Appendix are true, Assam has been a deficit State all-through the period from 1951-52 to 1963-64.

TABLE 2.5.

Population, Food Production and Food Requirements of Assam.

(Production in thousand tons)

Years	Population estimated (Million)	Production Food (Thousand Tons)	Net availability	Food requirements (Thousand Tons)	Surplus(+) or Deficit(-)
1951-52	8.83	1482	1297	1439	- 142
1952-53	8.99	16.42	1437	1465	- 28
1953-54	9.17	1675	1466	1494	- 28
1954-55	9.39	1674	1465	1530	- 65
1955-56	9.64	1625	1422	1571	- 149
1956-57	9.93	1721	1506	1618	- 112
1957-58	10.25	1638	1433	1670	- 237
1958-59	10.61	1689	1478	1729	- 251
1959-60	10.99	<u>1731</u>	1515	1791	- 276
1960-61	11.41	<u>1734</u>	1517	1859	- 342
1961-62	11.63	1756	1536	1895	- 259
1962-63	11.86	1515	1326	1933	- 607
1963-64	12.10	1737	1520	1972	- 452

6.3. Supply from Central stock: Data on the supply of foodgrains from outside the State is not available for the whole period of study. In Table 2.6 is given the supply of foodgrains to the State from Central Stock from 1956 to July, 1964. Though the data in Table 2.5 and 2.6 are not strictly comparable, it can be said that inspite of the Central supply, there were large gaps between demand and supply of foodgrains. This rising demand against dwindling supply might have been the main cause behind the

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122