IMMIGRANTS AND THE AGRICULTURAL CHANGES IN THE LOWER BRAHMAPUTRA VALLEY

A CASE STUDY OF DARRANG DISTRICT

By

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INTRODUCTION

During the last couple of decades the global agriculture has undergone dramatic transformation. This subsistence peasant farming to its modern and technically advanced counterparts in many areas is largely due to a pressing need of food grains specifically to eradicate the problem of hunger, under nutrition and malnutrition. The tremendous pressure exerted by population growth on arable land and the growing demand for food and agricultural raw materials are some of its pressing problems of the present day world. While doing extensive farming man has already pushed the frontier of arable land to the limit and hence agricultural production and diversification of crops by adopting new agricultural technology and practices. In recent years production of cereals has gone up in the developing countries nonetheless the numerous qualitative targets are miles ahead to be achieved.

One of the most spectacular aspects of technological revolution in agriculture is the introduction of high yielding varieties of crops which have since the outset comspicously transformed the agrarian phenomena in most of the developing countries of south east Asia. In so far as the introduction of HYV seeds during early sixties ago, the post introduction phase

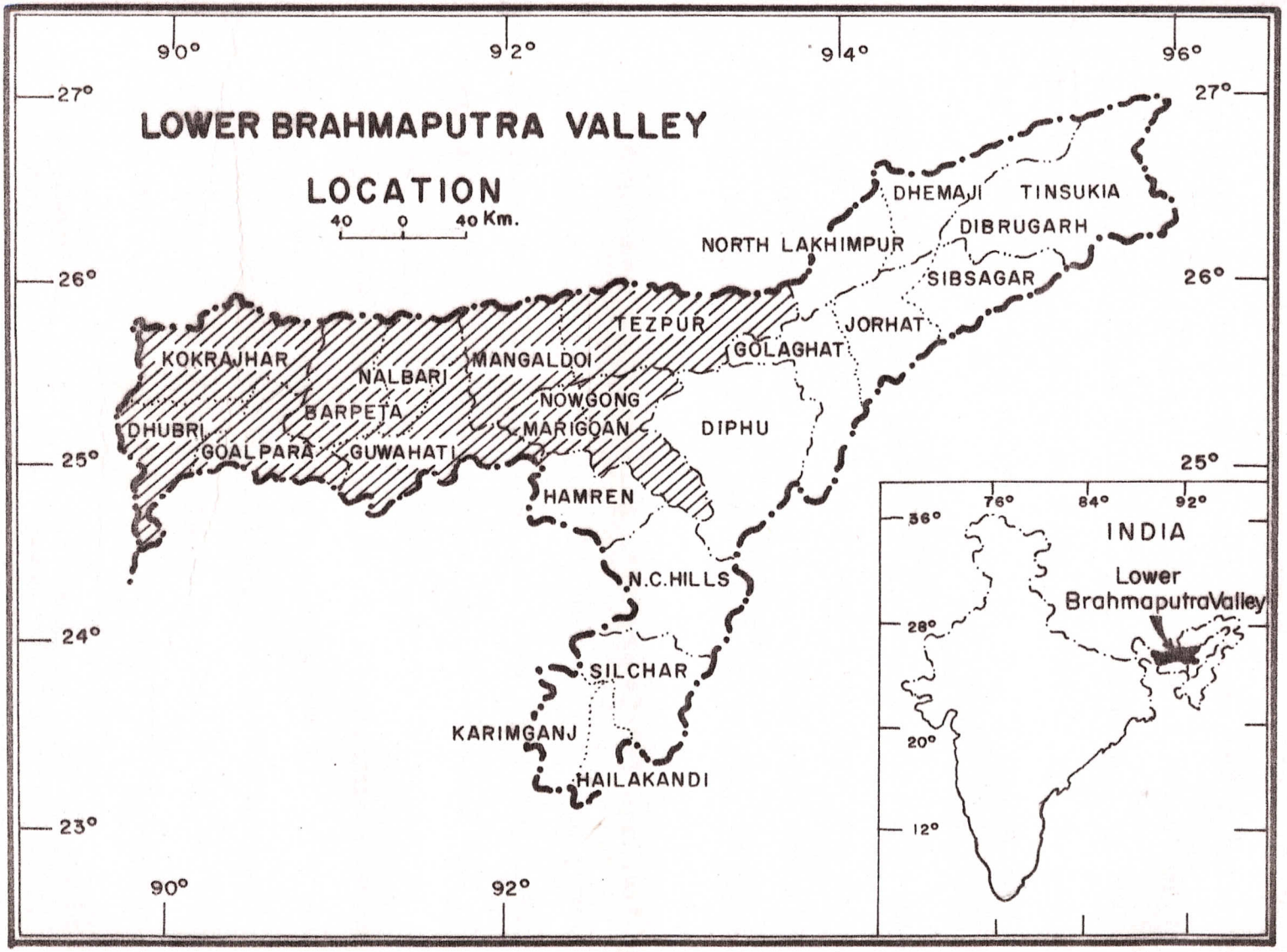
LOWER BRAHMAPUTRA VALLEY
LOCATION
40 0 40 Km.
90°
92°
94°
96°
27°
26°
25°
24°
23°
DHEMAJI
TINSUKIA
DIBRUGARH
NORTH LAKHIMPUR
SIBSAGAR
JORHAT
TEZPUR
GOLAGHAT
KOKRAJHAR
NALBARI
MANGALDOI
NOWGONG
BARPETA
DHUBRI
MARIGOAN
DIPHU
GOALPARA
GUWAHATI
HAMREN
N.C.HILLS
SILCHAR
KARIMGANJ
HAILAKANDI
INDIA
Lower
BrahmaputraValley
76°
84°
92°
36°
28°
20°
12°

Fig. I.

highlights a discouraging productivity pattern of the new crops specially rice in terms of both absolute and relative figures. The introduction of HYV programme with an advent of technological breakthrough has failed to a large extent to bring down the hunger, malnutirition under nutrition and social inequality to minimum in the country. The per capita output has not appreciably increased. It has simply helped to maintain the existing levels of production per capita alongside the nutrition levels in many states and union territories confronting an acute problem of population growth. The varieties have thus resulted in a change in cropping structure, their rotation, methods and agricultural operations. Consequent upon the advanced technology has quickened the formation of a commercial agriculture. The subsistence peasant farming is therefore in the process of being destroyed with the advent of this new technology. This, as an attribute can be singled out so as to identify its wide spread effects such as growth of wage labour, formation of a stratum of agricultural labourers rise of large farmers in terms of social importance and emergence of a new class of rural elites. In turn it has brought about a polarisation of social classes creating greater disparities in the income of the rural people which have in the long run led to many social tensions.

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1. K. Griffin (1973). The Political Economy of Agrarian Change. Macmillan, Oxford, pp. 46-82, 171-194.

The social structure, relation alignment and status have drastically changed with a corresponding change in the income distribution. These features in rural India are largely due to the introduction of HYV crops by the immigrants which have substituted the human labourers with a high level farm mechanization. It has however, ultimately generated a vast potential of human labour, surplus in agricultural sector thereby substantially widening the gulf of economic inequality, regional disparity and increasing the problem of unemployment.

It would be worthwhile to study and analyse the changing pattern of the agricultural practices and production in a micro region of the Lower Brahmaputra Valley which has tremendous renewable resources base and enormous agricultural potential.

The study is aimed to enquire into the change in agricultural system and impact of immigrants on agricultural change in the Lower Brahmaputra valley. The issues thus raised incorporate as to how, why and to what extent the change and the impact has been reflected in the several holding strata of the rural peasantry. What have been the absolute and relative gain in terms of output? Whether the crop production is neutral to scale or dependent on a variety of socio-economic and physical input factors?

Before going into details, it will be worthwhile to discuss about the conceptual framework of agricultural change of any natural or social phenomenon, upon which the study is based on.

The relative existence over space has always formed an interesting study for both social and natural scientists. For an analysts however it is the spatial/behavioural aspects of such phenomena that stands as the primary concern. This relationship between man on the one hand and space and time on the other, if studied in the spatio-temporal dimensions brings out the dynamics of the spatial pattern of agricultural change.

There are a variety of phenomena whose scientific study of agriculture is very rare. The new technological innovation study in agricultural sector draws special attention to raise and improve the standard of living in a society which is predominantly agricultural in character. Agriculture being the backbone of a country's economy is also as the basic sector, an indicator of the overall socio-economic development. The modernization of an agrarian society i.e. the technological change from the contemporary to modern can be brought about only when the orthodox ideas conservatism and superstitions, of the rural lot are absolutely wiped out by means of adequate scientific

education and training. The advanced technology employed in agricultural sector can also be helped to accelerate the production and productivity of field crops to a considerable extent.

The main objective of the present study is to find out the pattern and extent to which the influence of immigrants among the indigenous farmers of the Lower Brahmaputra valley. Secondly, it seeks an answer as to the distribution of output of the impact of immigrants in agricultural sector. Thirdly, an attempt has been made to distinguish, identify and trace out the factors which in fact constrain and encourage their way of influence.

Study Area

The present study area is confined to the districts of Goalpara, Kamrup, Darrang and Nowgong of the Lower Brahmaputra valley. As a climatic region, Brahmaputra valley is unique itself. It records over 400 cm of rainfall annually. The soil is highly fertile being formed by the fluvial deposits of Brahmaputra and its tributaries. The agro-climatic conditions have made the valley an area of monoculture of rice in which more than 70 p.c. of the gross cropped area is devoted to this crop.

Lower Brahmaputra Valley has been selected as an area of study primarily because of its distance socio-economic and cultural character (as compared to the rest of the valley). Reasons are many, but suffice it to say that the influx of immigrants has contributed significantly to the complexity of agricultural landscape. The study contents that the elements of the distribution of phenomena are known and concern itself with the problem connected with the impact of immigrants in the agricultural system of the valley.

The change of agriculture and its distribution pattern in social and economic context in the region can also be considered as a spatial phenomenon whose influence will highlight the various physiographic, socio-economic and cultural barriers. Since this part of study deals with data and information in a time series and there are numerous limitations in procuring them. The study about the immigrants impact on agricultural change is a difficult task. The economic pattern of the immigrants and local rural farmers has been the focus of the study because of its physiographic and socio-economic personality.

Hypothesis

1) What is the extent of distributional pattern of agriculture in Lower Brahmaputra valley?

2) Whether the physical attributes of the region are conducive for the agriculture and attract the immigrants in the area?

3) Whether the socio-cultural economic change is created by the immigrants in the area or not.

4) The major influence and change in the agricultural practices and output will be identified.

5) It will be tested the production and improvement of agricultural system whether similar to the indigenous and immigrants.

6) Whether the Lower Brahmaputra Valley has adequate facilities for agricultural activities where maximum changed can be identified with the influx of immigrants.

7) Whether the immigrants cultivators are using any new seeds and improved technology in agricultural system than the indigenous cultivators which creates inequality in the distributional pattern of land and output.

8) Whether the immigrants are completely dominated the entire agricultural system of the valley in terms of output and economy.

Data Base

The whole study has been done with the help of the primary and the secondary data and information and also field study.

Most of the chapters are based on the secondary sources like Directorate of Agriculture, Government of Assam. Other relevant data on immigration and agriculture has been collected from the Census of India. The field survey in the sample villages of Darrang district was conducted in the form of questionnaires.

The field and on the spot collection of data by a direct interview with the farmers of the Lower Brahmaputra Velley (Darrang district) have been executed in the following way.

a) Social Setting - To know the social conditions of the farmers and compare them with the non-immigrants villages of the district. The size of the family and living condition etc. of the people are known through the social setting.

b) Holding Size - The landholding size of the farmers in terms of area operated, area owned, fragmentation of fields, pattern of land utilization, cropping pattern and concentration of crops, levels of productivity of the field crops.

c) Consumption levels of inputs - Information concerning the advanced economic inputs such as fertilizer, pesticides, irrigation, tractor, diesel pump etc. The response of each farmers has been filled up against the respective question asked.

Criteria of Sample Study

Generally for a standard study dealing with socio-economic aspects about 10 - 15 percent of the universe is taken as the sample. But looking at the time, finance and several socio-cultural constraints in the valley only nine sample villages were selected and studied.

In the field study of these nine villages the author has to take lots of help from the local inhabitants of the immigrant villages. During the period the political instability and the problems of foreigners were the main problems to conduct such sensitive studies. All the time the villagers remained curious to know whether the incoming stranger is a government agent, politician, missionary workers, a social reformer or simply a research scholar.

About 324 (three hundred and twenty four) questionnaires were completed from the selected villages representing immigrants and indigenous farmers. It is hoped that a generalization on the basis of this sample taken can give a satisfactory and sufficiently reliable picture of the agricultural change among the immigrants and the indigenous farmers. The sample farmers adopting HYV rice in their farms have been therefore taken into consideration to see the change in agricultural change.

Methodology

The study planned and designed within an environmental-cum-socio-economic framework begins with an assessment of the physiographic background of the region. The agricultural operation being implicit phenomena within the agro-climatic set up of the Brahmaputra valley, various climatic indices have been prepared for a better understanding of the area in terms of environmental conditions.

In the third chapter an attempt has been made to understand the population growth and its characteristics by the immigrants during the last 50 years into the Brahmaputra Valley.

Chapter four is primarily an attempt to find out the concentration of high yielding varieties of crops and their productivity patterns among the farmers of the two different ethnic groups. Here is an attempt to explain the productivity variation of high yielding varieties in space. For this purpose regression analysis have been adopted as the tool to measure the composite effect of these variables on the yield per hectare. The inter-relationships of the variables have been tested through bivariate correlation coefficients. It also suggests whether a new variable is worth considering or not thereby helping to keep a watch over the changes in the values of regression coefficients and their standard errors.

The fifth chapter studies the general agricultural situation of the selected district. The effect and cause relationship between the environmental parameters and per hectare yield with the growth of population. Nelson's Method of crop combinations have been adopted to measure the districts' cropping pattern and crop combination. In the Darrang disteict there is a significance increased from 1.88 lakh hectare in 1961 to 2.75 hectare in 1981, a 46.28% increase over the last two decades. There is a change in cropping pattern due to increased in food crops. The technological changes and implements of high yielding varieties of seeds are the main cause in agricultural development of the district.

The sixth chapter embodies the socio-economic and cultural factors. The concentration is more on immigrant farmers and indigenous farmers comparative study of problems and prospects of landuse in the study area, the social setting of the farm households has been assessed and evaluated. The comparative relationships have been found out between the yield and the social variables. The variables include - family size, religion, age of the cultivator, formal education, number of working members of fragmented fields of the two different ethnic groups of farmers.

In the seventh chapter the overall impact of the immigrants on the agricultural situation has been discussed and concludes them with it. It has been discussed how the immigrants influenced the local farmers for multi-cropping. It has been also noticed that how the demographic pressure created by the immigrants depressed the rural economy.

IMPACT OF IMMIGRANTS ON AGRICULTURE AND CONCLUSION

Environment influences on man is inseparable from very history of humanity. It is the highest form of interaction between life in general and environment. In the similar way, impact of immigrants on the agriculture of the Lower Brahmaputra valley is very much there in the very history of the development in agriculture. It is highest form of interaction between immigration in general and agriculture.

The interaction of immigrants and the development in agriculture is closely linked with the problems of development in places which lag behind other economically, technically and culturally. This is an environmental problem. In the Brahmaputra valley the environment has a vital role to play in the development of agriculture. The environment itself invites people from all over the country.

During the last decade, the Brahmaputra Valley's population has increased from 10.8 million in 1961 to 14.6 millions in 1971. This increase has an effect on agriculture in the valley. The increasing population settled on arable and char lands of the Brahmaputra valley. The percentage of landless labourers and rural unemployment too increased which has resulted to socio-economic, cultural and political problems. The

present political turmoil in the Brahmaputra valley is the result of such a phenomenal increase of immigrant population. The rapid increase in population has reduced the arable land and land-man ratio on the one hand and have brought basic changes in the crop landuse and socio-economic structure on the other which is transforming the cultural values of the inhabitants of the region. Although net cropped area and gross cropped area have increased marginally during the last decades, the per capita share in each of the two categories of land has decreased substantially, because of growth of population. This not only a natural but maximum migrants from the Bangladesh and Nepal.

The Brahmaputra valley is surrounded by hills, therefore, encironment plays a vital role in agricultural activity. Agriculture largely suffers due to the frequent occurrences of natural hazards like large scale floods and water logging as the rainfall pattern is very erratic. Though flood is a serious problem, but it fertilizes the agricultural fields through silt deposits.

High growth of population due to continuous influx of migrants has created complex problems in the Lower Brahmaputra valley. As 70% of the household consists uneconomic holdings

and share croppers. The land per capita income comes to 0.5 hectare in the valley. But the available per capita agricultural land was 0.27 hectare in 1961 and it was decreased to 0.20 hectare in 1971 as against 0.30 and 0.25 hectare respectively for the country as a whole. The tragic part of the fact is that most of the local people are not in a position to compete with the immigrants who have tremendous ability for hard work. The hard working immigrant settlers from Bangladesh with abilities in the field of agriculture have attained much better production than the autonomous in the rural areas of the Lower Brahmaputra Valley. The poor section of the original inhabitants has gradually become poorer because of sole dependence on agriculture.

The pressure of population on land in rural areas of the Lower Brahmaputra Valley is increasing gradually due to immigrants from Bangladesh.

Another vital problem created in this region by the major section of the immigrants is that they do not like to be assimilated with the original inhabitants. By ignoring language and culture of the original inhabitants most of the immigrant settlers have arranged schooling of their children in their own language which hampered the process of integration. This may be viewed in the light of the fact that out of every five persons in the valley (1971) one is an immigrant.

Further the gradual increase of theft, social crimes like murder, arson etc. have some relations with the influx of destitute people from outside. Research studies reveal that major crimes in this region is committed by immigrants. This process which leads to disruption in the social set up in the region.

In the economic fields too, it is observed that the major part of the trade and commerce is in the grip of immigrant settlers. The migrants from Bangladesh have played an important part in the improvement of agricultural production but in the agricultural economy of the Lower Brahmaputra Valley. Due to over population of migrants the per capita consumption also increased.

In the case of agricultural production rate or the zone of high yield and high spread is considered the most efficient zone. In the Lower Brahmaputra valley rice is the high yield and important crop. Agricultural production can be increased to a considerable extent by increasing the use of high level of input to increase the per hectare production. But at the same time if the growth of population also increases, then the high per hectare production does not help in the countries economy. Immigrant is the main problem in

the valley where large number of immigrants from Bangladesh occupied the entire agricultural zone. There may be read in increase in production but it is quite insignificant in comparison to the population growth.

The net effects of Immigrants

Large scale immigration imposes shock demands upon the economy for in excess of the demands imposed by the rapid population growth resulting from a high rate of natural increase. The increase in aggregate demands that results from immigration is normally regarded as a cost of disadvantage of immigration even though it may be short term cost.

However, immigration was found to have widespread indirect effects throughout the economy. It seems likely that immigrants cause fundamental changes in the economy.

Consumption

Obviously, private consumption expenditure will increase as the population expands through immigration. However, this increase may be less than proportionate to increase in numbers because demand for such items such as consumer durables may only become effective after a period of saving and or if finance is available. Indirectly immigration may rise per capita

consumption by the existing population.[1] If immigration results in a higher level of economic activity, extra income will be available for consumption spending. Again, however, the actual increase in consumption depends on how much of the extra income is saved and or taxed away.

Private Investment

In the absence of unused productive capacity, the increased demand associated with immigration will be met by acquiring new plan and equipment. Immigration, by adding to the labour supply, allows increased production. However, unless productive equipment was originally under-utilized or investment is undertaken, the productivity of labour will fall as the existing capital stock is divided between more workers.

The actual increase in investment depends on whether productive resources can diverted from other forms of production. Immigration, by stimulating inverstment, reduces the average age of the capital stock. As investment embodies current technology this results in productivity gains.

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1. Peter, J. Brain, et.al. 1979. Population, Immigration and the Australian Economy, London, p.14.

However, by making labour easily available, immigration reduces the incentive to technical change. This is less likely if directly or indirectly immigration raises production costs. This would occur if increased demand result in a shortage of productive factors other than labour. It would also result from increased wage claims intended to compensate for price increases. Inflationary pressure may encourage the substitution of capital for labour thus resulting in the adoption of new technology, raising productivity and facilitating the payment of higher wages while maintaining profits.

Government Expenditure

As government expenditure varies with needs, it will increase with population growth. However, if immigration raises total current expenditure while preventing per capita expenditure from increasing, this reduces the increase in living standard. Current expenditure on education may be taken as an example.

Immigration added to the pressure on the education system but certainly did not create them. Immigration by encouraging economic growth and raising per capital income resulted in increased tax revenue which could have been used to finance increases in both aggregate and per capita government expenditure.

Population growth, especially through immigration, also results in the need for additional government expenditure on social capital. Again, the relevant question is whether immigration has retarded the increase in social capital per person.

Immigration problem of a Brahmaputra valley is generally confined to its socio-cultural and political aspects. But for a fuller understanding of the problem appreciation is necessary also of the socio-economic impact of immigration on the economy[2] of the state, particularly its rural economy. By the 1971 census, 91.9% of the population of the state is rural and 76.7% of the working force is engaged in agriculture. The corresponding national averages are 81.13% and 72.05% respectively.

While immigration into the fertile and resource-rich Brahmaputra Valley is a long historical process, it is since the beginning of this century that it started gathering pace and assumed unbroken continuity. The 1931 Census[3] described that the large scale influx of farm settlers from East Bengal as "The most important event in the state of Assam in the first quarter of the present century."

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2. Parameswar Sharma (1982). Immigration and its Impact on the rural economy of Assam: A socio-economical appraisal, p.
3. Census of India, 1961.

The immigrants from Bangladesh and Nepal account in the 1961 Census at 90% and 97% respectively. The largest concentration of them are in Goalpara, Nowgong, Kamrup and Darrang districts of Assam.

Immigration has contributed to the big spurt in population growth in two ways through direct addition to the population and by raising the natural rate of increase of population of the state through higher fertility rate and preponderance of persons of the reproductive age group in the age composition of the immigrants population. The fertility rate of Bangladesh is traditionally high.

The long continuous immigration of far labourers from Bangladesh is the result of the operation of several pull and push forces.[4] In the early stage of the process the low density of population in Brahmaputra valley abundance of virgin fertile land, open uncultivated char's and the benign land tenure system acted as powerful pull forces while mounting pressure on land, the oppressive zamindari system provided equally powerful push forces. As per the 1901 Census of Assam, the densities of population per square mile in the four districts of Brahmaputra valley which are presently most affected by

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4. Parameswar Sharma, Op.cit., p.

immigration were as follows: Goalpara - 117, Kamrup - 153, Darrang - 100, and Nowgong - 68. In Nowgong by the 1971 Census has the highest density in the state. The tagging of Assam to East Bengal in 1905 and the development of rail communication in this state increased spatial mobility and further speeded up the process of migration.

Whatever might have been the immediate impact of their arrival on the socio-cultural environment of the state, the early migrants from East Bengal had by and large made tangible contribution to the economy of the state as recorded in the Census of India, 1971 report on Assam. The mostly settled on the wasteland and brought about a degree of diversification in the farm output by introducing their two favourite crops - Aman and Jute. There was some increase in overall agricultural production, though achieved mostly through extensive agriculture. They popularised better grades of garden crop. Most of all, the larger chunk of these migrants like the tea garden labourers who had come earlier assimilated in the Assamese society.

Partition marked a watershed in the history of the immigration problem of Assam. Not only what previously had been internal migration took on due character of foreign

immigration the large scale influx of population from East Pakistan produced a steep rise in the population curve. Pressures built up in the major sectors of the economy. Especially marked is the impact on the agricultural sector. A major indicator of the mounting pressure in the sector is the rapidly tumblering land-man ratio. In a single decade 1961-71 the size of the per capita agricultural holding in Assam declined by 26% against the national average declined 16.7% during the same decade.

Relative position of Assam among the states in respect of average size of ownership holding and percentage of agricultural households owning no land.

State	Average size of ownership holdings (hect)	P.C. of household owning no land
Assam	1.26	27.77
Andhra Pradesh	1.84	6.84
Bihar	1.23	8.63
Gujrat	3.44	14.74
Maharashtra	3.57	16.03
Orissa	1.42	7.84
Rajasthan	4.98	11.84
West Bengal	1.08	12.84
All India	2.00	11.60

Source: National Sample Survey 17th round (September 1961 to July 1962).

The above table brings out the acuteness of the land problem in Assam. It spot-lights two revealing facts - the average size of the ownership holding in Assam was not only significantly lower than the national average but was one of the lowest among the states. The percentage of landless agricultural households was also not only more than double the national average but was the highest in the country. Incidentally there was practically no problem of landlessness among agricultural households in Assam before partition and the radical transformation in the position came about in less than a decade and half of freedom. The fact points to the rapid increase in the rate of immigration in the post partition decades.

Another indication of the moving demographic pressure on land is provided by the growth rate of density of population per 100 hect. of land under food crops. For the period 1961-71 as estimated by Dr. K. Alam of Gauhati University. This rate was 74% for Assam against 32% for the country as a whole. This rate incidentally was the highest among the neighbouring states. According to National Sample Survey 26th round, 82.60% of the operational holdings in Assam in 1971-72 were uneconomic. This figure which comes close to the estimate of the State Planning Board in the Draft Fifth Plan that 77.38%

of the rural population of the state lived below poverty line provides an unmistakable pointer to the extreme backwardness of the states agrarian economy.

In a revealing comparison of the growth rates of population and foodgrains output in Assam during 1951-68 in a paper entitled "Population and Foodgrain oust in India" (Economic Development in South Asia, Edited Robinson and Kidron, Macmillan, 1970), Ashok Mitra shows that while the annual compound growth rate of population in Assam during the period was 2.99% of the highest among the states, the compound growth rates of foodgrains and non-foodgrains out in Assam during the same period were 0.71% and 1.49% respectively, the lowest among the states. There findings are corroborated by those of K.N. Raj in his study "Some Questions Concerning Growth, Transformation and Planning of Agriculture in the Developing Countries" (ibid) for the same period. A recent survey by a researcher of the Gokhale Institute, Pune shows continuation of the trend.

As the combined result of the unrelenting pressue of population on land and lack of diversification of the rural economy, there has been a steady increase in disguised unemployment in the agricultural sector. An indicator of the trend

is to be found in the state government's evaluation report on SFDA/MFAL in the Nowgong district 1975. This district is a main seat of immigration from Bangladesh and in the 1971 Census it recorded the highest density of population among the districts of the state. According to the report during the period 1961-71, there had been a sharp decrease in the number of land owning and tenant cultivators, associated with corresponding increase in the number of landless agricultural labourers in the district.

With increase in surplus labour in Assam Agriculture, there has been corresponding increase in the unemployment rate. As calculated by A.K. Neog and M. Barkataky, the magnitude of unemployment in the rural sector in Assam has increased by an alarming 40% during the period 1951-71, which incidentally was the peak of the influx. A study of agricultural productivity per worker in Assam during the period 1951-52 and 1976-77 by Dr. K. Alam shows a continuous decline and a distinguished unemployment problem.

Whether evidence in suppor of the depressing effect of immigration on the agricultural economy of the state is to be found in the following result of a study by K. N. Nihan entitled "Agricultural labourers and Poverty" in Economic and

Political Weekly, July 10-17, 1982. The study reveals that during the decade and a half from 1956-57 to 1970-71, the per capita real income of non-cultivating wage earners recorded as 12% decline in Assam against varying degree of increases in all other states ranging from 8% in West Bengal, 34% in Orissa, 57% in Andhra Pradesh, 73% in Gujarat, 74% in Kerala, 90% in Punjab, to 109% in Rajasthan and a National average of 59%.

The depressing effect of immigration on farm wage is significantly most pronounced in areas where there is already a high concentration of immigrant population. In course of a socio-economic survey in the Goalpara district in 1975 the present writer noted in some villages in the Dhubri sub-division e.g. Solmari and Golokganj, the prevailing farm wage was as low as Rs. 1.50 plus the mid-day meal, against rates ranging upto Rs. 8 in parts of the state like the Sibsagar district when immigration is thin.

A further indicator of the growth retarding effect of explosive population growth since the sixties in the failure of the planning process to bring about the desired shift in occupational distribution from agricultural to non-agricultural occupations. During the first two decades of planning, the share of agriculture in the state income declined from 66%

(two-third of the total) to 49% (half), while the share of agriculture in the labour force increased from 7% to 77% . The trend also found expression in the decline in agricultural productivity, as pointed out in the Draft Fifth Plan for Assam. Between the two periods 1951-54 and 1969-72 the value of the agricultural output per worker at constant prices declined from Rs. 508.77 to 355.27, a 30.2% decline.

Another major area of the states economy in which exploding population growth by immigration was severly pressed on natural resources is the forestry sector. Once a heavily forested state, Assam has suffered rapid shrinkage of its area under forest as a result of the combined impact of encroachment depreservation and destructive exploitation of forest resources. The large scale occupation of forest land for agriculture is directly and indirectly the result of the demographic pressure generated by the influx. At present the total geographic area of the state only 21% is under reserved forest. This is very much below the national minimum of 33.3% under productive forest prescribed of the National Forest Policy.

Like the native population of the state, the immigrant population from Bangladesh and Nepal have an overwhelmingly

non-industrial background, and are mostly drawn from the rural proletariat. In consequence, their arrival has not brought any gains to the economy in either capital resource or accretion of higher skills, nor contributed to the creation of an environment of change essential to industrialization and modernization.

The relentless demographic pressure created by the large scale and continuing immigration has depressed the rural economy of the state resulting in intensification of the twin problems of poverty and unemployment among the rural masses. Superimposed on a situation of underdeveloped and stagnation, unrestricted immigration in the region, as observed by Dr. B.N. Ganguli in his "Population and Development" (S. Chand & Co. Pvt. Ltd., 1973) has produced a conflict situation, especially that immigration has carried with it the threat of upsetting the demographic balance and bring the ethnic or linguistic composition of the population. Even to stabilize the rate of population growth at a reasonably low level, indespensable to prevent the meagre gains of planning from being diluted by the humane tide, effective ways must be found to stop further immigration, rigorously enforce limitation of the size of the rural family and possibly also relieve the rural economy of its surplus manpower.
