CHAPTER I
INDIA
LOCATION OF ASSAM

ASSAM

M. MEGHALAYA
T. TRIPURA
BOUNDARIES
INTERNATIONAL
STATE/ U.T.

M A P - 1.
CHAPTER - I
INTRODUCTION

1. Assam is one of the major states of the Indian Union and the most important among the north eastern states. Once its territorial jurisdiction extended upto the present Nagaland, Meghalaya and Mizoram. The present geographical area of Assam covers 78,523 km², which represents 2.4 percent of the total area of the country.

1.1 Location and Boundary:

Assam is located between 24°08‘N- 27°16‘ E Longitude. On its northern boundary, there are Bhutan and Arunachal Pradesh. Mizoram, Meghalaya and part of Bangladesh stand on its south. On its eastern boundary, there lie parts of Arunachal Pradesh, Nagaland and Manipur, while, North Bengal, Tripura and part of Bangladesh form its western boundary (Map-1).

1.2 Natural divisions:

Assam can be divided into two natural divisions — namely Plains and Hills. Each division has its own distinct geographic and socio-economic characteristics.

The Plains division consists of the Brahmaputra valley and the Barak valley having the total geographical area of 63,301 sq. km, which constitute 80.6 percent of the total
The Brahmaputra Valley has seven districts, namely Goalpara, Kamrup, Nowgong, Darrang, Lakhimpur, Dibrugarh and Sibsagar while the Barak Valley has only one district namely Cachar district.

The Hills division covers two autonomous districts of Karbi Anglong and North Cachar Hills, having a total geographical area of 15,222 Sq. Kms. It claims 19.4 percent of the total land area of Assam.

1:3 Topography:

Topography of the Brahmaputra valley is characterised by alluvial plains where the Brahmaputra river flows with more than 50 tributary rivers. It runs at a length of 450 Kms, from east to west with a width of about 5 to 8 Kms.

The topography of the Barak valley is characterised by small hillocks and marshy lands. The largest river of this valley is the Barak. The hill districts are located on the Meghalaya and the Barail ranges.

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1. On 15th August, 1983, six more districts have been created viz., Dibreri, Nokrajhar, Barpeta, Mongoldoi, Jorhat and Karimganj and on 29th February, 1984 Chandigram has been declared a new district with Chandrapur, one of its Headquaters.
1:4 **Soils:**

Soils of Assam can be broadly classified into (1) New alluvial, (2) Old alluvial and (3) Red loam and laterites. The alluvial soils are suitable for paddy cultivation. The New alluvial soils are formed by the deposits of silts by constant floods of the rivers. These soils are sandy and suitable for rabi crops like wheat, mustard and pluses. The Old alluvial soils of red loam laterites categories are found in the hills.

1:5 **Climate:**

Assam is under monsoon belt. As such, it gets fairly enough rainfall. The Monsoon generally commences in the last part of May and lasts up to the middle of October. The humidity and temperature are highest in August. The winter period is between November and February, with temperature varying between 10° to 20°C. The details of temperature, humidity and rainfall have been given in the Appendix. Monsoon is life line of the agriculturists of Assam. Because the agriculture of the state depends heavily on monsoon. But the most disturbing feature of the rainfall in Assam is its uncertainty. Moreover, it also results in water-logging in some areas and devastating floods in other areas causing heavy damages to crops every year. The damages caused by floods in Assam have been given in the Appendix.
1.6 **Land Utilization:**

Land utilization of Assam, as per 1970-71 agricultural census is given in table below:

**Table 1.1** Distribution of Land Area as per Land Utilization; Assam - 1970-71.

<table>
<thead>
<tr>
<th>Land Utilization</th>
<th>Land in thousand Hectares</th>
<th>Percentage to total geographical Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Forest</td>
<td>1964</td>
<td>25.01</td>
</tr>
<tr>
<td>2. a) Land put to non-agricultural uses</td>
<td>682</td>
<td>11.23</td>
</tr>
<tr>
<td>b) Barren and unsuitable land</td>
<td>1831</td>
<td>19.49</td>
</tr>
<tr>
<td>3. a) Permanent pastures and grazing land</td>
<td>286</td>
<td>3.34</td>
</tr>
<tr>
<td>b) Land under pine, trees</td>
<td>250</td>
<td>3.21</td>
</tr>
<tr>
<td>c) And groves cultivable waste</td>
<td>130</td>
<td>1.66</td>
</tr>
<tr>
<td>4. a) Fallow land other than current fallow</td>
<td>122</td>
<td>1.55</td>
</tr>
<tr>
<td>b) Current Fallow</td>
<td>109</td>
<td>1.38</td>
</tr>
<tr>
<td>5. Net Area sown</td>
<td>2889</td>
<td>34.13</td>
</tr>
<tr>
<td>Total Geographical Area</td>
<td>7892</td>
<td>(100.00)</td>
</tr>
</tbody>
</table>

The above table of land utilization shows that in Assam, 34.13 percent of the total geographical area was cultivated as against 50 percent for the country as a whole. Further it also shows that 25.01 percent of the land is covered by forests, which is below the national norm. Besides, a good part of the land of the state is under waterlogged areas and land covered by the rivers.

1.7 Nature of Economy:

The nature of state's economy is agrarian. This is obvious first from the occupational distribution of workers which shows the engagement of three fourths of the workers of the state in agriculture sector. Secondly, more than 70 percent of the population of Assam was found to be dependent directly or indirectly on agriculture. Moreover, agriculture contributes about 50 percent of the state domestic product.

1.8 Size of Holdings:

Assam's agricultural sector has many features which are not favourable for agricultural breakthrough and prosperity for the agriculturists. Many important aspects of the agricultural economy of Assam were revealed by the agricultural census 1975. Thus according to Agricultural
Census Assam, 1976, about 82 percent of the holdings are of up to 2 hectares size. This size-group covers marginal and small holdings together. It is to be noted that this size group accounts for 43 percent of the cropped area. Moreover, 18 percent of the households claim 57 percent of the cultivated land in Assam. These 18 percent households constituted of the medium and big farmers. This issue of inequality in distribution of land has been discussed in detail in subsequent chapters of the thesis. Further, the scattered nature of holdings combined with uneconomic fragments are another important characteristics of the agriculture of Assam. As per 1976 agricultural census, there were as many as 22534 number of operational holdings having land area of 3079573 hectares, but the average size of the holdings in Assam is only 1.37 hectares which is below the all India average (i.e., 2 hectares).

1:9 Cropping Pattern, Production and Productivity Trend:

Assam's soil is suitable for multiple cropping. Rice accounts for over 73% of the cropped area of the state. The area under rice remained at high level up to 1976-77. However, it showed a declining trend from 1977-78. It declined from 22.4 lakh hectares to 21.1 hectares (13.2%) and 21.3 lakh hectares (12.7%) in 1976-77 and 1977-78 respectively. The
area under wheat increased by 17.07% in 1979-80 whereas area under sugarcane showed slight decline by 1.04%. Jute is grown mostly in Goalpara, Kamrup, Nowgong and Darrang districts. The inter district cropped area under jute in Goalpara, Kamrup, Nowgong and Darrang are 10.04%, 6.96%, 15.50% and 5.22% respectively, whereas the average cropped area in Assam under jute is 5.62%.

1:9:1 Yield rates:

The average yield rate per hectare in Assam is the lowest in the country. The yield rates of different crops are shown in the table below:

contd/-
Table 1: Yield rate of certain crops in Assam and India (In q. per Hect.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>1038</td>
<td>1235</td>
<td>944</td>
<td>1088</td>
<td>1042</td>
<td>1308</td>
<td>984</td>
<td>1328</td>
<td>826</td>
<td>1062</td>
</tr>
<tr>
<td>Maize</td>
<td>579</td>
<td>1203</td>
<td>562</td>
<td>1060</td>
<td>598</td>
<td>1051</td>
<td>601</td>
<td>1076</td>
<td>588</td>
<td>970</td>
</tr>
<tr>
<td>Wheat</td>
<td>1200</td>
<td>1410</td>
<td>1100</td>
<td>1387</td>
<td>1154</td>
<td>1480</td>
<td>1015</td>
<td>1968</td>
<td>1122</td>
<td>1437</td>
</tr>
<tr>
<td>Total Pulses</td>
<td>393</td>
<td>533</td>
<td>398</td>
<td>494</td>
<td>381</td>
<td>509</td>
<td>410</td>
<td>515</td>
<td>400</td>
<td>385</td>
</tr>
<tr>
<td>Oil Seeds</td>
<td>405</td>
<td>580</td>
<td>357</td>
<td>496</td>
<td>400</td>
<td>460</td>
<td>437</td>
<td>525</td>
<td>455</td>
<td>412</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>36949</td>
<td>50903</td>
<td>35805</td>
<td>53383</td>
<td>31489</td>
<td>56160</td>
<td>34621</td>
<td>50160</td>
<td>35698</td>
<td>N.A.</td>
</tr>
<tr>
<td>Potato</td>
<td>9943</td>
<td>11738</td>
<td>4823</td>
<td>11573</td>
<td>4076</td>
<td>12228</td>
<td>5087</td>
<td>12555</td>
<td>5204</td>
<td>11984</td>
</tr>
<tr>
<td>Jute</td>
<td>1305</td>
<td>1367</td>
<td>1202</td>
<td>1307</td>
<td>985</td>
<td>1210</td>
<td>1409</td>
<td>1317</td>
<td>1385</td>
<td>1308</td>
</tr>
</tbody>
</table>

N.A. = Not Available.

Source: (1) "Estimate of Area and Production of Principal Crops of India", Directorate of Economics and Statistics, Government of India,
(2) Economic Survey 1980-81, Government of India,
It is observed that the average yield rates of rice, maize and jute, in Assam declined by 8.94, 2.16 and 1.7 percent respectively over 1978-79, while average yield rates of wheat, sugarcane and potato increased by 10.54, 3.11 and 2.3 percent respectively, during the same period. The per capita production of foodgrains per annum in Assam is 124 kg., whereas per capita minimum requirement of food is 162 kg.\(^2\)

1.10 Tea:

Among commercial crops, tea occupies a very important place in the economy of Assam. It contributes 13 percent of the state income.\(^3\) Tea plantation is found in Goalpara, Kamrup, Nowgong, Darrang, Lakhimpur and Sibsagar districts of the Brahmaputra valley. The district Sibsagar has the largest share in plantation area. It provides employment to 4.3 lakh persons.\(^4\)

1.11 Industry:

Though Assam is endowed with abundant natural resources like oil, water, forests and other minerals, it is industrially

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2. Statistical Hand Book of Assam, 1980, p. IV.
backward. It has not been able to occupy a rightful place in
the industrial map of the country. It can be understood by
the growth of industries in the state. The number of registered
factories increased from 1604 in 1971 to 1093 in 1980 but
number of big industries are very few both in Public sector
and Private sector. One of the major hindrances in progress
of the industrial development is lack of adequate infrastructural
facilities which is shown below in the Table No.1:3.

**Table 1:3** Social consumption and Infrastructure in
Assam and All India.

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Year</th>
<th>Assam</th>
<th>All India</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Length of Rd. per 100 Sq. Km.</td>
<td>Kms.</td>
<td>1978-79</td>
<td>27</td>
<td>46</td>
</tr>
<tr>
<td>2. Length of Rd. per lakh Population</td>
<td>Kms.</td>
<td>1978-79</td>
<td>111.5</td>
<td>235</td>
</tr>
<tr>
<td>4. Per capita Bank Deposit</td>
<td>Rs.</td>
<td>June, 1978</td>
<td>150</td>
<td>393</td>
</tr>
<tr>
<td>6. Per capita consumption of Electricity</td>
<td>K. Wt.</td>
<td>1980</td>
<td>30</td>
<td>130</td>
</tr>
<tr>
<td>7. Percentage of Village Electrified</td>
<td>Percent</td>
<td>1979</td>
<td>15.6</td>
<td>41.8</td>
</tr>
</tbody>
</table>

Source: (1) Economic Survey Assam, 1980, p. 44.
The table given above indicates the comparatively low state of the socio-economic structure of the state. The road length per hundred sq. km. was 27 km. whereas in all India it was 46 km. the road length per lakh population in Assam was 111.5 km. whereas in all India it was 235 km.

Banking Facility:

Banking facilities as per population per bank office in Assam is 39 per thousand population whereas for all India for each 27 thousand population there was one bank office. Regarding bank deposit, per capita bank deposit in Assam was Rs. 150, whereas in all India it was Rs. 353 similarly the per capita bank advance in Assam was less i.e., only Rs. 62 whereas in all India it was Rs. 241.

The consumption of electricity in Assam was only 30 K.Wt. (per capita) whereas in all India it was 130. In Assam 15.6% villages are electrified whereas in all India 41.8 percent villages are electrified.

1.12 Demographic Features:

As per 1971 Census, population of Assam was 146 lakhs. It has increased to 197 lakhs in 1980 as per projection. The population growth of Assam, as shown in the table has shown a

5. Registrar General, Census of India, 1981, Govt. of India.
continuously rising trend without any interruption since 1901 -
a rate of rise always above the national average.

Table 1.4  Population Trend in Assam and All India.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population in lakhs</th>
<th>Rates of decadal growth in percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assam</td>
<td>All India</td>
</tr>
<tr>
<td>1901</td>
<td>33</td>
<td>2,188</td>
</tr>
<tr>
<td>1911</td>
<td>38</td>
<td>2,520</td>
</tr>
<tr>
<td>1921</td>
<td>46</td>
<td>2,512</td>
</tr>
<tr>
<td>1931</td>
<td>56</td>
<td>2,708</td>
</tr>
<tr>
<td>1941</td>
<td>67</td>
<td>3,185</td>
</tr>
<tr>
<td>1951</td>
<td>80</td>
<td>3,610</td>
</tr>
<tr>
<td>1961</td>
<td>108</td>
<td>4,391</td>
</tr>
<tr>
<td>1971</td>
<td>146</td>
<td>5,471</td>
</tr>
<tr>
<td>1981*</td>
<td>197</td>
<td>6,800</td>
</tr>
</tbody>
</table>

Source: Census Reports of relevant years.

*Population Figure of 1981 for Assam was projected by the Registrar General, Census of India as no population census could be held because of uncertain conditions caused by the movement of foreigners issue.
From the above table it can be seen that the decennial growth rates of population in Assam were 13.18%, 21.08%, 21.74%, 19.64%, 35.19%, and 34.93% respectively in 1911, 1921, 1931, 1941, 1951, 1961, 1971 and 1981 whereas the rates of decennial growth of population for all India were 5.53%, (-) 0.3%, 11.0%, 14.2%, 13.34%, 24.8% and 24.3% respectively for the same years. The causes of this rise in population in the state can be attributed to the high birth rates. Again the continuous migration of people from other parts of India and Nepal since the British occupation of Assam and more particularly from the erstwhile East Pakistan (Now Bangladesh) after the partition of the country also can be the reasons for continuous rise in Assam's population.

The district-wise population, area and density of population etc. have been given in the Appendix. In Assam, the density of population per Sq. Km. was 102 in 1951 and it rose to 138 in 1961, then to 186 in 1971 and in 1981 it is supposed to have reached as high as 254 persons per sq. Km., where as the density of population for all India during the same respective years were 110, 134, 161, 168 and 206 per sq. Km.

As regards the density of population of Assam, it is unevenly distributed. According to 1971 census the highest density of population was reported in the Nowgong district with 302 persons per sq. Km. followed by Kamrup (289) and
Cachar (24S) districts. On the other hand the North Cachar Hills district had the lowest density i.e., 16 persons only per Sq. Km. Percentage of Male and Female in Assam was 53 and 47 respectively in 1971. The sex ratio, as per 1971 census, was 896 female for every one thousand male compared with 930 female for one thousand male for the country as a whole. At present (1980) the female ratio for Assam has increased to one 900 female for every thousand male.

1:12:1 Age composition, working force and occupational distribution:

As per 1971 census, 45.9% of the population of Assam was in the age group of 0-14 years; 48.4 percent in the age group of 15 to 59 years which is considered as working group, and the remaining 4.7 percent of the population was in the age group of 60 years and above. The working force of the state was estimated to be 40.9 lakhs which accounted for 28 percent of the total population of the state as per 1971 census.

The occupational distribution of workers shows that in 1971, 76.6 percent workers were engaged in agriculture and allied activities, in which 55.8 percent were cultivators, 9.9 percent were agricultural labourers and the rest 10.9 percent workers were engaged in allied activities in Assam.
Only 4.5 percent workers were engaged in secondary activities of which 1.3 percent were in household industries; and the remaining 18.9 percent workers were engaged in tertiary sector. This clearly shows the under-developed state of the economy of Assam.

1.13 Literacy:

The literacy of the state is 28 percent only as per 1971 census (30 percent male and 19 percent female) whereas literacy of all India during the same period was 29.45 percent.

Community:

The people of different communities live in Assam. According to 1971 census Hindu population constituted 72.51 percent of the total population of the state. This included 6.24 percent scheduled castes and 10.98 percent scheduled tribes both Plains and Hills. Muslim population in the state formed 24.56 percent of the state total, and the remaining 2.03 percent belong to other communities like Christians, Sikhs, Buddhists etc.
1.14 **Poverty:**

As per planning commission and the 32nd Round of N.S.S. report 32.65 percent of the rural population of Assam lived below poverty line, whereas in all India only 50.82 percent were below poverty line. The above estimates have been derived by using Rs. 65/- per capita per month in 1977-78 prices corresponding to minimum daily calorie requirement of 2400 per person in rural areas.

1.15 **Administrative division:**

Assam is divided into 10 districts, 23 sub-division and 74 revenue circles. There are 21,995 villages, 72 town, 160 community development block, 18 Mahakuma Parishad and 663 Gram Panchayat in Assam. (Map-2)

1.16 **Definition of Small Farmers:**

India is an agricultural country. The predominance of agriculture in India's economy and life of its people is so much that land asset is given the highest value by the people associated with rural economy; income, security and social

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*On 15th August, 1983, 6 more districts have been created in Assam, and again on 29th February, 1984, marginal land has been declared a new district with Chandigarh, Akhand as its Headquarter.*
prestige in the village areas are all proportional to the land holdings. Everyone wants land to earn more and to feel secure. It is being felt as if a villager without land is like one without caste, thus the landless are the decaste of rural society. But 70 percent of Indian cultivators are small and marginal farmers whose land holdings, however, account for 20 percent of the cultivated area. Now who is exactly a small farmer? A precise definition of the term small farmer is bristled with difficulties. There has been enough discussion regarding the definition of small farmer. Various expert committees, scholars, and agricultural economists have been given different definitions at different times and in different contexts, on the basis of different criteria like (a) the amount of land holdings, or (b) the level of income, or (c) the level of employment, or (d) a combination of some or all of the criteria. As it is not possible to discuss all these definitions, it is, therefore, necessary to review some of the important definitions so that an appropriate definition may emerge out for our study.

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In 1951, the planning Commission applied the term small farmers to the small owners of land and observed that the expression "small and middle owners of land can not be defined precisely but for most purposes, it might be sufficient to consider owners of land not exceeding a family holding as small owners." In this context, the family holding is defined as an operational holding being equivalent according to the local conditions and under existing conditions of technique either to plough unit, or to work unit, or to income unit, of family of average size working with such assistance as is customary in agriculture. The concept of family holding, therefore, involves the application of various norms like (1) full utilization of a minimum amount of capital (a plough unit), (2) adequate employment for the cultivating family (a work unit) and (3) minimum amount of net annual income to the family (in one unit). The size of the holding arrived at, by applying each one of the above norms, need not necessarily be the same even though in some cases it might coincide.

In 1951, when this definition was formulated by the Planning Commission. It was thought that this definition would introduce certain amount of vagueness and would not be of much help to identify the small farmers properly. Therefore,

to avoid vagueness and to identify them quickly at the village level, the Rural Credit Survey Committee of the Reserve Bank of India, 1954 suggested a classification of cultivators into four groups, — big, large, medium and small — on the basis of deciles. In each of the selected village, all cultivators are to be listed in the descending order of the size of the cultivated holdings. Then they are to be divided into ten equal groups. The cultivators in the lowest three deciles are to be termed as small farmers. The cultivators in the first decile are to be termed as big cultivators, the cultivators in the next two deciles are large cultivators, and the cultivators in the middle four deciles are to be called as medium cultivators.

Although seemingly it is an unobjectionable and quite reasonable definition, it has quite a few limitations. In this type of classification only 30 percent of the cultivators are considered as small farmers. There is no justification for this. Apart from this, the main limitation of this type of classification is that the village data are added to arrive at district figures and the district figures for the state figures without taking into account the range of the size of the cultivated holdings in each decile or the

various factors that determine the productivity of land.

Due to the difficulties and limitations mentioned above, the All India Rural Debt and Investment Survey conducted by the Reserve Bank of India in 1961-62 adopted the value of owned assets as the basis of classification of the cultivators. The value of the total assets include (1) Ownership right in land, (ii) Special right in land, (iii) buildings, (iv) Live-stocks, (v) Implements, machines, transport equipments (bullock-cart etc.), (vi) Durable household assets, (vii) Dues receivable or loan advanced in cash and kind and (viii) Specialised items of financial assets, National Saving Certificates, Government Security, shares and debentures of Companies and Co-operative institutions, deposits with banks and private money lendings. On the basis of the above principle the cultivators were divided into seven asset groups:

(1) Less than ₹ 500/-
(2) ₹ 500/- to ₹ 1000/-
(3) ₹ 1000/- to ₹ 2500/-
(4) ₹ 2500/- to ₹ 5000/-
(5) ₹ 5000/- to ₹ 10,000/-
(6) ₹ 10,000/- to ₹ 20,000/-
(7) ₹ 20,000/- and above,
The small asset groups are identified as small farmers for two reasons:

First, a large proportion of the total value of the assets are accounted for by value of land. Secondly, the value of the total assets indicates ownership of relativity of small size of lands. Both these factors suggest low farm business income. But the real difficulty is faced in drawing the dividing line, that is, whether the cultivator with total asset up to Rs. 1000/- or Rs. 5000/- are to be treated as small farmers. Any decision on this, is likely to be extremely arbitrary. Therefore, the classification of farmers on the basis of their assets was given up by the All India Rural Credit Review Committee of the Reserve Bank of India in 1969.

The All India Rural Review Committee, 1969 felt that an uniform definition of small farmers for the whole country was not possible. Factors like size of holdings, tenurial status, poor quality of soil, lack of irrigation facilities, scanty, distribution of rainfall etc. do have a role in working out line definition of small farmers. It therefore, classified the small farmers into three different categories.

11. All India Rural Review Committee, 1969, Reserve Bank of India, p. 538.
(i) Viable
(ii) Potentially viable
(iii) Non-viable or marginal farmers mainly on the basis of land holdings.

The viable farmers are those small farmers who own 2 to 3 hectares of land and are generally self-sufficient.

The potentially viable small farmers are those who own 1 to 2 hectares of land. According to all India Rural Review Committee such farmers can be made self-supporting if adequate credit support is provided to them through suitable institutional agencies. The term "self supporting" is used in a very restricted sense by the Committee to refer to the capacity of a family to earn a net income of Rs. 1200/- (or a gross income of Rs. 2400/- at 1960-61 prices) from land resources. This is likely to put a family of normal size consisting of five persons (husband, wife and three children) above the poverty line which is defined as per capita income of Rs. 20/- per month at 1960-61 prices.

The non-viable farmers or marginal farmers are those farmers who own land up to 1 hectare but incapable of supporting under existing conditions of production even if financial support is given to them through suitable institutional agencies of credit. During the Fourth and the Fifth Plan period,
Government of India as well as the State Governments accepted this classification, and definitions of different categories of small farmers given by the All India Rural Credit Review Committee with minor modification. During the plan periods Government of India as well as most of the State Governments used the term "small farmers" to refer to the potentially viable farmers, who own land between 1 to 2 hectares and the term marginal farmers refer to non-viable farmers who own land up to 1 hectare. These definitions of small farmers are based essentially on the criterion of land holdings and some times qualified by certain amount of off farm income restriction. Therefore, in recent years it is being increasingly felt in the Government circles that the definitions of small farmers and marginal farmers based on this criterion of land holding alone is not suitable for identification of such farmers. It should be suitably qualified by some employment and income criteria.¹²

Further, again in 1971-72 the All India Debt and Investment Survey classified the cultivators according to their assets in the following four categories;

Table 1:8 Classification of Farmers as per value assets.

<table>
<thead>
<tr>
<th>Category</th>
<th>Value Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal Farmers</td>
<td>upto Rs. 2500/-</td>
</tr>
<tr>
<td>Very Small Farmers</td>
<td>Rs. 2500/- to Rs. 5000/-</td>
</tr>
<tr>
<td>Small Farmers</td>
<td>Rs. 5000/- to Rs. 10,000/-</td>
</tr>
<tr>
<td>Large Farmers</td>
<td>Rs. 10,000/- and above</td>
</tr>
</tbody>
</table>


The percentage of farmers under the above four categories to their total number and average size of the land owned per thousand under each categories are given in the following table.

Table 1:8 Distribution of farmers into different categories all India. (In percentage )

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage to total number of cultivators</th>
<th>Average size owned land per household (Hect.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal Farmers</td>
<td>18.5</td>
<td>0.32</td>
</tr>
<tr>
<td>Very Small Farmers</td>
<td>18.2</td>
<td>0.82</td>
</tr>
<tr>
<td>Small Farmers</td>
<td>23.1</td>
<td>1.39</td>
</tr>
<tr>
<td>Large Farmers</td>
<td>40.2</td>
<td>3.76</td>
</tr>
</tbody>
</table>

The Reserve Bank of India (1978), in its study on small farmers used gross income as the criterion when it defined the small farmers as one whose income did not exceed Rs. 3,000/- (in 1967-68). According to this approach, the Reserve Bank of India considered all those whose farm income did not exceed Rs. 3,000/- (in 1967-68) as small farmers.

In its evaluation of the SFDA (Small Farmers Development Agency) in 1972-73, the Reserve Bank of India (1975) defined the small farmers as one whose gross farm income was between Rs. 1200/- to Rs. 3600/-. This range was based on its estimation of potential viability. It was felt that those with gross farm income exceeding Rs. 3600/- were already viable. This definition was an attempt to be in line with the concepts promoted by the All India Rural Credit Review Committee (1969).

A new direction to the study of small farmers was given by C.H. Shah. He carried out extensive study of economic potentialities and almost all aspects of the small

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14. SFDA has been discussed in details in subsequent chapters.
farmers in the Charotar tract of Gujarat. He redefined the small farmers on the basis of net income, instead of using the size of holding as a dividing line which is otherwise convenient for many purposes. He divided farmers into three categories: big, medium and small on the basis of the income level. Income level was, however, determined through some norms developed by referring to local situation. These norms took into consideration different cropping patterns, social and climatic conditions and availability of irrigation and translated them into acreages which varied from region to region.

V.S. Vyas, D.S. Tyagi and V.N. Misra endeavoured to make a proper definition of small farmers in the context of the new strategy for agricultural development or what is known as the programme of high yielding varieties concentrating on two areas of Gujarat, they investigated into the factors that influenced the adoption of new technology. Following Khuero and Hanumanth Rao, Vyas and his colleagues examined the relationship between the gross income and the total cost which included the cost of family labour but excluded the rental value of land separately for cultivators who adopted

17, Ibid, p. 127.
new technology and those who did not. They observed that those adopting new technology would become viable even for a much smaller holdings. They examined an alternative by employing varying level of efficiency in regard to the adoption of new technology and they found that a great deal of saving can be effected in land by adopting new techniques.

Professor G. Parthasarathy also made a valuable contribution in arriving at a suitable definition of small farmers. His findings relate to 20 districts of Andhra Pradesh. He observed that the small farmers constituted a large proportion of the total cultivating families, the proportion varying from 64 to 92 percent in the state. He accepted the consumption requirement of Rs. 1200/- per family as the dividing line.

In this context a number of alternative indices would be considered: (a) all assets; (b) land; (c) output; (d) volume of business transactions measured either by marked quantity or purchased inputs; (e) employment potential; (f) farm business income; and (g) cost per unit of output in relation to an optimum. All these indices could be judged in relation to the average of each district. Or alternatively, a particular

level for the state as a whole could be chosen by some method and those below it could be identified as small. He rejected the first alternative since the level of average would vary from district to district and considered that data relating to small farmers based on such an index would be misleading for purposes of allocation of resources between the districts for the benefit of small farmers. He then chose one single level for the state as a whole to identify the small farmers. The level of minimum requirements of the household. The concept of minimum requirement is not unfamiliar in recent agricultural policy. A 'family holding' was sought to be expressed in terms of this. A figure most commonly seen is Rs. 1200/- per annum for the household. Farm management investigation suggests that farm business income is around half of the gross value of output. Hence a level of Rs. 2400/- gross value of output could be taken as minimum necessary. Hence, the minimum acreage required to give gross value of Rs. 2400/- could be derived from each district. All household below this minimum size could be categorised as small. And holding with current gross values varying between Rs. 800/- to Rs. 2400/- will be categorised as "small farmers and small farm".

Under the 'Page Scheme', the small farmers and the agricultural labours have been clearly defined. For instance,
"A small farmer is a cultivator, cultivating land, personally with a holding up to 5 (five) acres or whose tax assessment does not exceed Rs. 1800/- per annum".

1612 Leeds economists Edwin H.H. and Thomas, E (1972) have framed a definition of small farmers in the context of India. According to them, small farmers are those who do not possess optimum risk bearing ability.

In a less developed economy, where small farmers are predominant, the problem of risk is borne by the farmers who belong to large and medium income groups. It is a well known fact that the risk bearing ability depends not only on the financial capacity but also on the knowledge of operation and technique. Small farmers in India are traditional farmers who do not dare to accept any contingency by going out of their known experience.

1613 The concept of small farmer is common to all the developing countries. Even in developed country like U.S.A., there are small farmers who mainly consist of Negros and the

22. Ibid, p. 38.
poor whites. The term small is relative. It is based on land holdings. Small holdings, say less than 5 acres of wet land or 10 acres of dry land. Lesser holdings means lesser income and, therefore, the small farmers are poor.

1;16;14 The definition of small farmers used by the government of India in the small farmers Development Programme, however, was purely on the basis of landholding and irrigated status. A small farmer is defined as one who has ownership of dry-land 1 to 2 hectares and marginal farmers as one owning less than 1 hectare of land.

1;16;15 The Government letters states that “It is not possible in view of the limitations of finance and the known strategies, to take all the small farmers. It is, therefore, proposed to confine attention to those small farmers who are potentially viable to become surplus producers with improved techniques, and input support irrigation etc. No uniform definition can be laid down in terms of size of holdings for this category. Their

24. Letter No. 11-21/69 Agr. Cr. dated 19.11.1969 of the Ministry of Agriculture and Irrigation, Govt. of India (1971), pp. 7-9 to all the SFDA/MFAL Agencies of the States.
25. Ibid.
size may vary from area to area according to the productivity of land. It has, therefore, been left to each project implementation agency to determine the class of farmers which can be eligible for the assistance in the project area.

The Department of Rural Development, Ministry of Agriculture and Irrigation revised the definitions of marginal farmers and agricultural labourers as follows:

(a) Marginal farmers are those having holding of not more than 1 hectare (2.5 acres). This limit will be generally for irrigated areas. In other areas the limit may be raised depending on the availability of irrigational facilities, the type of soil, the cropping pattern and other relevant factors. While selecting farmers participants efforts should be made to cover all those with holdings upto 1 hectare first.

(b) Agricultural Labourers are those who are having a homestead, and earning 50 percent or more of their income from agricultural wages.

The National Commission on Agriculture in 1973 noted that the small farmers were then being defined as those having between 1 to 2 hectares of irrigated land and 1 to 3 hectares

26. Letter No. 15-1/70 Agr.-Credit dated 16.5.70 as granted Ministry of Agriculture and Irrigation, Govt. of India, (1971).
in dry areas, and marginal farmers are those having below
1 hectare of land. The Commission on the basis of a review
studies recommended that the maximum limit of holdings for
small farmers should not be more than 2 hectares, and marginal
farmers above 1 hectare. The Commission did not specify
ceiling for irrigated and unirrigated land. However, the
composite projects during the Fifth Plan were asked to define
small farmers with landholding below 2 hectares of any dry
land or 0.50 hectares of Class I irrigated land. At present,
the last definition is being followed in all special plan
projects in agricultural sector.

1:16:18 Operations vs. Ownership holdings:

Another aspect of identification of small farmers
related to land holdings is in respect of tenurial status of
landholdings. In the early years of the SPDA/MPAL no specific
mention was made whether the ceiling on land holdings,
suggested for identification was in respect of operational
holdings or ownership holdings. However, the importance given
to updating of records of rights suggests that it was intended
to help share-croppers, also to be identified as beneficiaries
of the programme.\textsuperscript{28}

\textsuperscript{28} National Commission on Agriculture, 1973, pp. 19-20, Interim
Report on Reorientation of Progress, SPDA/MPAL Agencies.
In 1973, however, Ministry of Agriculture and Irrigation, Department of Rural Development, Government of India, New Delhi, made explicit that operational holding should be taken as the criterion. The government letter states, "The Agencies (SFDA/MFAL) have been advised to adopt the operational holdings rather than recorded rights in land records for identifying small farmers, marginal farmers and agricultural labourers. Identification was related to operational holdings as it would be a more realistic and easily verifiable.

But again nine months later, on the eve of the Fifth Plan period, however, the suggestion given by the Commission on National Agriculture, Ministry of Agriculture and Irrigation, Department of Rural Development, advised all the Agencies (SFDA/MFAL) to adopt ownership holdings as the criterion for identifying small farmers, marginal farmers and agricultural labourers. The letter mentioned in the footnote runs as follows:

"As suggested by the National Commission on Agriculture, each project will be a combined Agency to cover both small/marginal farmers having holdings below five acres. The definition

29. Letter No. 17-26/73 dt. 17-4-73, New Delhi (Identification/Survey) New Delhi, Ministry of Agriculture & Irrigation, Govt. of India.
30. Vide letter No. 11011/2/74 dated 1-5-June, 1974, The Commission on National Agriculture, Ministry of Agriculture & Irrigation, Department of Rural Development."
of small farmers/agricultural labourers to be adopted will be as follows:

**Small Farmer**:

Cultivators with land holdings below five acres in case of Class I irrigated land as defined in the land ceiling legislation the ceiling will be 2.5 acres.

**Marginal Farmers**:

Cultivators having land holdings up to 2.5 acres in case of Class I irrigated land as defined in land ceiling legislation of the state, the ceiling will be 1.25 acres.

**Agricultural Labourers**:

Cultivators without any land holdings but having homestead and deriving more than 50 percent of their income as agricultural wages are to be considered as agricultural labourers.

The small/marginal farmers and agricultural labourers should themselves be cultivators. The land holding limits will be applied on the basis of ownership holdings, ownership being taken to mean transferable or heritable rights. The family should be taken as a unit for this purpose and such family normally living together as a household.
obviate 'Benami' transfer. In respect of share-croppers and tenants such of them as have recorded rights, should be identified as small and marginal farmers. "As the identification process was made on the basis of the size of holdings, many defects and anomalies came up to the surface, and after a review, the Government of India, in August 1973, suggested the following additional criteria to be adopted to avoid diversion of the resources of the agencies (SPDA/MPAL) who to be cannot really be deemed small and marginal farmers". 31

(1) Such farmers can be identified on the basis of land holdings limit but who have income from non-agricultural sources exceeding the income from the land may be excluded from the purview of SPDA/MPAL.

(2) Farmers who have a steady income of Rs. 200/- and above per month from non-agricultural sources may not be considered for any assistance under the programme.

(3) Such of the farmers who are not engaged in cultivation themselves, partly or fully, may also be excluded from the programme even for identification on the basis of land-holdings limit.

A Reserve Bank Study Team which examined the working of the SFDA of Purnea (Bihar) suggested that a viable farmer might be defined as one whose agricultural income minus expenses of cultivation was sufficient to maintain himself and his family. "The team held the view that since productivity of land differed from area to area and from level of technology or intensity of cultivation to another, viable farmer was to be defined with reference to the person's income from agriculture inclusive of activities allied to agriculture like diary, poultry etc. and not the size of holdings."

In 1977, it was decided by the Ministry of Agriculture and Rural Development, Government of India that for the purpose of identification of small/marginal farmers having horticulture/plantation crops within the prescribed average limits should be identified irrespective of their land under orchard/plantation crops. It is, however, necessary to ensure that small farmers with flourishing horticulture lands are not given subsidy. Each project may, therefore, laydown a cut off point in terms of acreage within the overall ceiling of 2 hectares. In deciding this, income limit under the debt relief legislation in the state may be taken as the indicative limit.

32. Review of the SFDA, Purnea District, Bihar, Reserve Bank of India. 1975.
According to the World Agricultural Census (Assam), farmers having holdings below 8 bighas are taken as marginal farmers, holdings of the size of 8 to 15 bighas are taken as small farmers, and farmers operating less than three bighas are classified as landless cultivators. Thus the holdings of the size of 2 hectares or more may be classified as medium and large farmers. The above mentioned census shows that nearly a third (33.19 percent) of the total holdings in Assam are sub-marginal and these cover only 5.88 percent of the total area. Marginal holdings constitute 23.85 percent of the total holdings of the state, the proportion of such holdings in different districts is found to be more or less the same, ranging from 22.09 percent in N.C. Hills to 25.21 percent in Darrang district.

Out of the various definitions of small and marginal farmers discussed above, the definition given by the World Agricultural Census 1971 on the basis of land holding is acceptable with slight modification since it has the merit of stability in land reform. Though it is feared that taking up operational holding as the criterion of land base, the categorisation of farmers into groups, in practice, it is found more sound and practicable. The ownership holding base of

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identification possess more ills than good rather it is a brake in the developmental works raising various questions on legality of possessions etc., where operational holding base has justification on the principle of the land to the tillers. Professor Dantwala's famous article on "Problems of Small farm and not of small farm"\(^{35}\) remind us to give much importance to the small farmers than to the small farm and thereby to convert the small farmers from social and economic liability to a productive asset.

Neither the income approach nor does the asset approach generalise the entire economy. For example in Punjab and Haryana where land is very fertile small farmers are well-to-do than their counterparts in U.P., Bihar, Assam, etc. Moreover because of fertility and pressure of population on land, the cost of land varies as such assets also varies consequently it is not possible to generalise a definition of small farmer within this frame works.

It has been aptly remarked that Assam is land of small farmers.\(^{36}\) Keeping all these facts in consideration, for our present study, operational holdings has been taken as the basis of categories of farmers into different group

\(^{36}\) Dr. P.C. Goswami, Agricultural Development of Assam, Agricultural University, 1951-1975, Jorhat, p.147.
are which-as follows:

Below 1 Hectare = Marginal Farmers
1-2 Hectares = Small Farmers
2-10 Hectares = Medium Farmers
10 Hectares & above = Large Farmers.

Before making an effort to study the problems of small farmers in the state of Assam it will be relevant to measure the size of small farmers in Assam in comparison with that in other states. From this measurement we will be able to know the relative importance of the small farmers in the agricultural economy of the state. The measurement will be made regarding the proportion of the cultivating households of small farmers compared with other groups, number and proportion of operational holdings accounted for by the small farmers with other groups of farmers. Lastly, we will know the cultivated area by size groups of operational holdings. The measurements in all these three respects are given in the following tables. It is important to mention in this connection that the relevant data have been taken from the two world agricultural censuses (1971 and 1976).
Moreover from the survey undertaken by the author in 1981-82, the size of small farmers according to our definition has been estimated, and the consolidated figures for the whole of the area also are presented in the tables below. For the purpose of comparison, the relevant data of All-India have also been given except for year 1981-82.

Table 1:7  The proportion of cultivating households in All-India and Assam.

<table>
<thead>
<tr>
<th>Category of Households</th>
<th>Period</th>
<th>Assam</th>
<th>All-India</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Marginal Holdings (Below 1 Hectare)</td>
<td>1970-71</td>
<td>57.0</td>
<td>50.6</td>
</tr>
<tr>
<td></td>
<td>1976-77</td>
<td>59.6</td>
<td>54.6</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>53.59</td>
<td>-</td>
</tr>
<tr>
<td>II. Small Holdings (1.0-2.00 Hect.)</td>
<td>1970-71</td>
<td>23.8</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>1976-77</td>
<td>22.7</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>30.2</td>
<td>-</td>
</tr>
<tr>
<td>III. Medium Holdings (2.0-10.0 Hect.)</td>
<td>1970-71</td>
<td>18.8</td>
<td>26.5</td>
</tr>
<tr>
<td></td>
<td>1976-77</td>
<td>17.4</td>
<td>24.4</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>15.30</td>
<td>-</td>
</tr>
<tr>
<td>IV. Large Holdings (10 Hects. &amp; above)</td>
<td>1970-71</td>
<td>0.4</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>1976-77</td>
<td>0.3</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>1.91</td>
<td>-</td>
</tr>
</tbody>
</table>

(3) For 1981-82 Our estimates from the Survey in selected villages of Assam.
From the above table it is thus clear that the proportion of the marginal holdings is the largest followed by small holdings, medium holdings and large holdings. In comparison with all India, it is very significant that the proportion of marginal and small holdings in Assam are larger than that in All-India, while it is the reverse in the case of medium and large holdings. The above table shows a significant fact that in the case of Assam the proportion of small farmers registered a sharp rise between 1976-77 and 1981-82. The rise was effected by a fall in the proportion of other groups. Thus during the period 1976-77 and 1981-82, the fall in proportion of marginal holdings is very significant. Our explanation that may be given for this fall is that because of lack of necessary resources and being compelled by acute poverty many of the marginal farmers sold out their lands and became landless.

The fall in the percentage of medium and large holdings is mainly due to the implementation of land ceiling Act\(^{37}\) which compelled the large holders to surrender a portion of their land.

Moreover, many of the land owners of these groups are not the actual tillers. Thus, the lack of the direct

\(^{37}\) The Assam Fixation of Ceiling of Land Holding Acts, 1956 (Amended in 1966 and 1972). The present Ceiling of Land Holding is only 50 bighas of land to one family.
connection with the land combined with land tenancy acts also led to the reduction of their proportions in the state.

In comparison with other states, it can be observed that the proportion of marginal farmers is the largest not only in Assam but also in such states as Andhra Pradesh, Bihar, Himachal Pradesh, Kerala, Orissa, Tamilnadu, U.P. and West Bengal. The small holdings come next to marginal holdings in Assam and states like Himachal Pradesh, Orissa, Tamilnadu, U.P. and West Bengal. The proportion of medium farmers is relatively large only in the states like Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra and Rajasthan whereas the proportion of large holdings is comparatively significant only in the states like Gujarat, Haryana, Madhya Pradesh and Maharashtra. (Detail in Appendix).

contd/-
Table 1:8  Area (in Proportion) of Operational Holdings in different categories in Assam and All-India.

<table>
<thead>
<tr>
<th>Category</th>
<th>Period</th>
<th>Assam</th>
<th>All-India</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Marginal Holdings</td>
<td>1970-71</td>
<td>17.7</td>
<td>9.0</td>
</tr>
<tr>
<td>(below 1 Hect.)</td>
<td>1976-77</td>
<td>19.3</td>
<td>10.7</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>15.7</td>
<td></td>
</tr>
<tr>
<td>II. Small Holdings</td>
<td>1970-71</td>
<td>23.0</td>
<td>11.9</td>
</tr>
<tr>
<td>(1-2 Hect.)</td>
<td>1976-77</td>
<td>23.3</td>
<td>12.8</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>24.1</td>
<td></td>
</tr>
<tr>
<td>III. Medium Holdings</td>
<td>1970-71</td>
<td>44.4</td>
<td>48.2</td>
</tr>
<tr>
<td>(2.0-10 Hect.)</td>
<td>1976-77</td>
<td>43.4</td>
<td>50.1</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>52.88</td>
<td></td>
</tr>
<tr>
<td>IV. Large Holdings</td>
<td>1970-71</td>
<td>15.0</td>
<td>30.9</td>
</tr>
<tr>
<td>(10 Hect. &amp; above)</td>
<td>1976-77</td>
<td>14.0</td>
<td>26.4</td>
</tr>
<tr>
<td></td>
<td>1981-82</td>
<td>5.32</td>
<td></td>
</tr>
</tbody>
</table>

(2) For 1980-81 our estimates from Survey conducted in selected villages of Assam.

The table given above shows that the proportion of area of operational holdings of marginal farmers of Assam has decreased by 3.6 percent in 1981-82 over 1976-77 whereas the proportion of area of small farmers has increased from 23.3% to 26.1% i.e., registering a rise of 2.8%. The reason of the
fall in the marginal holdings can be said to be the growing poverty and deteriorating economic conditions of the marginal farmers. It is a fact that marginal size farm is uneconomic. They lack the necessary credit base. As such, when they find that the tiny land may not support then they gradually sell the land to other and virtually became agricultural labour.

Again the rise in the proportion of the small farmers may be said that some marginally non-viable farmers could become viable small farmers, so far as medium farmers are concerned the proportion showed a rise from 43.4% to 52.88, i.e., 9.48% rise which is very considerable. It is because of the fact that most of the medium farmers who were leasing out lands showed themselves as cultivators because of fear of law. At the same time as per Assam Land Ceiling Act, medium farmers had to surrender the land in excess of the limit prescribed. In paper they might have surrendered but actually the land is still under their possession. As our basic criterion of classification of the farmers is operational holding, this higher proportion has been observed.

So far as big farmers are concerned, their proportion of holdings in Assam decreased from 14.0% to 5.32%. Because they were mostly absentee landlord class, they took less interest in cultivation. Thus they tried to dispose of the land.
From the above tables, it is thus clear that the land ownership pattern both in All India and Assam shows skewed distribution. Thus the degree of inequalities in the distribution of land ownership can be gauged from the fact that in 1970-71, 57% of the households of marginal farmers in Assam possessed only 17.7% of the land area. During the same period 23.8% of the households of the small farmers in Assam had 23% of the cultivable land. The marginal and small farmers together constituted 80.6% of the households but possessed only 40.7% of the land, while Medium and Big farmers constituted 19.2% of the households but possessed 59.4 percent of the land. In the year 1976-77, 59.6 percent of the marginal farmers possessed 19.3% of land in Assam. The small farmers households were 22.7% but possessed 23.3% of the land. The marginal farmers and small farmers constituted 76.6 percent of the households but possessed only 42.6% of land. And Medium and Big farmers who constituted 17.7% of the farming household possessed 57.4 percent of the land.

In All India, the marginal and small farmers households constituted 69.6% and 72.62% respectively in 1970-71 and 1976-77 but possessed only 20.9% and 23.5% of land respectively. whereas the medium and big farmers in all India constituted 30.4% and 27.4% respectively in during the same period (i.e., 1970-71 and 1976-77 ) but possessed 79.1% and 76.5 percent of
land. In our surveyed villages also the same inequalities in the land holding patterns are evidenced where small farmer holdings constituted 30.2% of the total and possessed only 26.1 percent of land. If we take together the holdings of marginal farmers (53.39%) also, they (marginal farmers and small farmers) together constitute 83.79% of the total surveyed households but they possess only 41.8 percent of land. According to our survey (1981-82) the medium and big farmers constitute 16.21 percent of households but account for 58.2 percent of the operational holdings.

Design of the Survey and Field Work:

A field survey had to be conducted in order to collect data regarding the various aspects of the economic life of the small farmers in Assam. The main items of enquiry covered by our survey are distribution of households, population and land operated, proportion of workers and non-workers of small farmers households, educational standard and literacy, possession of durable consumer goods, live-stocks, agricultural implements housing conditions, income and expenditure of the small farmer households. Thereby the poverty level of the small farmers understudy has been measured.
so far as the design of survey is concerned, we adopted a multi-stage sampling method. Seven districts of the Brahmaputra valley with all this sub-divisions were covered by the survey. At the first stage of sampling out of the total number of development blocks of a sub-division, a number of blocks were selected on the basis of stratified random sampling. Then at the second stage out of the total number of a selected block, 2 villages were selected for the survey on the basis of simple random sampling and at the last stage out of the total number of households of a selected village, 50 households (approximately) were selected on the basis of stratified random sampling which covered all categories of households. In this way total out of 17 sub-divisions of 7 districts 34 blocks were selected and out of these blocks 68 villages were included in the sample and out of these sampled villages, 3378 households were selected for our survey. The sampling units were these households survey. (Map - 3)

The field work was directly conducted by the author. The schedules were mainly canvassed by the local educated people like primary school teachers, block office clerks and senior students of the village school. Apart from canvassing schedule, relevant data were collected by intensive interview taken by the author with the various block officials, S.D.C.s, Managers of Co-Operative Societies and Commercial banks and
also village elders. The period of the survey was approximately between April 1981 to July 1982. The scheduled used for the survey have been given in the appendix(3).