CHAPTER - ONE

INTRODUCTION

Even after 62 years of freedom India remains a land of riches inhabited by the poor. The problems of poverty and unemployment and of unequal distribution are still very much in the forefront. India is in a critical stage of development and consequently and necessarily challenges are accompanied by problems. The problems are of rising needs of an increasing population in the political, social and economic environments which have not yet achieved an equilibrium. India must develop rapidly and all the impalements naturally represent a greater challenge and a hope for development and for a greater determination on the part of India’s people to face the challenge (Dewan : 1986).

The low level of living of the masses, their low income and the ever growing menace of unemployment with their cricual and cumulative causations’ in the words of Gunnar Myrdal, pose as of date, a formidable challenge to planning and growth in our county. This challenge becomes greater in the rural region abound (Subramaniam :1988).

In India, the rural poor are in pervasive conditions of chronic want and hardship. The condition of rural poor, in India, is characterized by malnutrition, illiteracy, disease, squalid surroundings and low life expectancy. Thus the rural poor are caught in a vicious circle of poverty, malnutrition, illiteracy, ill health, low productivity, lethargy and the poor are being continuously exploited by the rich and the well-to-do. It is not only a curse for those who suffer from it but a blot on the image of India, which proclaims to establish a progressive and socialist society. The incidents of poverty is more in rural areas than urban areas, and in rural areas, it is the landless, agricultural labourers and rural artisans, in general, and the scheduled castes and scheduled tribes in particular, who constitute the hard core of the poor. Its persistence in the long run way ever poised a threat to our democratic political system words like democracy and freedom have little meaning to a starving man. The raft of Fifth Five Years Plan has warned that the existence of poverty is incompatible with the vision of an advanced prosperous democratic egalitarian and just society implied in the concept of a socialist pattern of development. It holds a potential threat to the unity, integrity and independence of the country (Government of India - Draft Fifth Five Year Plan). Poverty,
inequality, unemployment, ignorance. ill-health and poor conditions of livings etc are still deep rooted in the rural areas of the country.

The problem of rural development in India, specially of Assam is multi-dimensional and complex and its abject poverty despite completion of Ninth Five Year Plans. The basic approach towards poverty alleviation over the plans was that if economic growth takes place, the problem of poverty will automatically be taken care of the beneficial effects of growth were supposed to percolate down to the lowest strata in the society. In reality; however, this trickle down to down approach appeared to be misleading since side by side with rising per capita national income growth, the magnitude of poverty was found to be rising in the country. It was realized that the problem of poverty cannot be left to be tackled by the top down planning for the general growth and the need for direct attack on poverty was strongly felt. As a result, special and deliberate programmes have been devised for abolishing abject poverty in rural areas over the planned era.

Poverty in India has become very complex with many of the variables influencing it. But the relationship among these variables is no clear. For instance, states which show high levels of calorie intake also report high infant mortality, thus blurring the relationships between malnutrition and mortality, Likewise, states which enjoy higher income may also suffer from low cereal consumption. On the other hand, Kerala, with a low per capita State income and also low calorie intake, has registered low mortality rates and the longest expectation of life.

According to the estimates of Dr. Minhas et al, the rural poor numbered 284 milion in 1990 while the number of urban poor was around 77 milion. According to the National Sample Survey (NSS) 1983-84, the population below the poverty line had shrunk to 37 per cent and according to the NSS (1987-88), the same had shrunk to around 30 per cent. However, based on the recent methodological corrections, those below the poverty line were placed at 37 percent of the total population.

In the developed countries, much of the poverty could be related to the interruption, reduction or loss of earnings from contingencies such as temporary unemployment, sickness, disability, old age, death of main earners in the family and large household sizes. This type of poverty persists even in India. Poverty in India is however, largely structural in nature.
It needs to be noted that the level of intensity of poverty in urban and rural areas are not independent of each other. Poverty in urban areas has worsened because of the exodus of the rural population to urban areas. The greater the intensity of poverty in rural areas, the larger would be this exodus. It is also equally true that rural poverty worsens when the urban based industrial and services sectors are not able to absorb and tap the potential of the growing labour force in the rural areas which suffer from poor land-man ratio.¹

The level of poverty is not therefore influenced by investments in a single area. It is influenced by the entire set of economic activities, in urban and rural areas, including agriculture and industry. Poverty alleviation schemes may be necessary to provide relief to the rural poor, but they cannot eradicate poverty even in rural areas unless other policies too aim at this laudable objective.

There is no doubt about the growing levels of poverty in rural areas. Studies show that between 1963-64 and 1977-78, the proportion of agricultural labour households below the poverty line for rural India as a whole increased from 52 per cent to 56 per cent.

The Rural Labour Enquiry Reports pertaining to the period, 1964-65 to 1974-75, observed that the average daily earnings in agricultural operations by men in agricultural labour households, deflated by the consumer price index for agricultural labourers, declined by 12 per cent during the ten-year period.

In the Indian context, relative poverty is less important than absolute poverty. Prof. Amartya Sen said that relative deprivation cannot be the only basis for the emergence of poverty. He observed, “there is an irreducible core of absolute deprivation in our idea of poverty which translates reports of starvation, malnutrition and visible hardship into a diagnosis of poverty without having to ascertain first the relative picture”²

¹ Dr. I. Satya Sundaram : Rural Development Himalaya Publishing House
² Ibid.
Distribution of land and other assets continue to be skewed. The rural poor standing at 30 per cent had access to 2 per cent of the assets as compared to the ownership of 81.9 per cent of the assets by the top 30 per cent. Hence, rural poverty has emerged due to the absence of access to productive assets to the rural population.

The focus on rural poverty is attributable to two reasons. First, most of Indian are poor, more than three-fourths live in its villages. Second, factors underlying urban poverty are significantly different, such as the assure of employment (Dubey et al 2000, 2002).

The first step to improve the living condition of the rural people of India was the launching of Community Development Programme in 1952. This programme, however, could not bring about the desirable results in increasing the agricultural production, removing illiteracy and improving the health and hygiene. To boast up food grains production, Intensive Agriculture Development Programme was later organised in selected districts of the country in 1961 and High Yielding Varieties Programme in 1965-66 to provide special assistance to underdeveloped section of the rural population, Small Farmers Development Agency and Marginal Farmers Agricultural Agency were organized in 1971.

By and large, all these programmes and their approaches were selective, sporadic, piecemeal or sectoral in nature. They just covered one or two aspects of rural people in the selected areas. Accordingly, they produced only marginal impact on the rural life and could not lead to the balanced and overall development of rural areas. They also caused special and sectoral unbalances in the growth of the economy. Such a situation gave, therefore, strong support to the idea of integrating all developmental activities under one umbrella. The concept of integrated rural development received wide support among the scientists of the country in the India Science Congress Session of 1975. Accordingly programme was introduced in 1970-79.

The Integrated Rural Development Programme (IRDP) is a centrally sponsored scheme funded by the center and the states on 50:50 basis. It is the single largest anti poverty programme underway in all the community development blocks in the country. It aims at providing income generating assets and employment opportunities to the rural poor for eventually enabling them to rise above the poverty line. Its target groups consists of the poorest of the rural
poor which comprise of marginal and small farmers, agricultural and non-agricultural labourers, rural artisans and Craftsmen including the scheduled caste and scheduled tribe families. It aims at the removal of poverty and unemployment in the rural areas through the adoption of family.

To begin with IRDP was the only self-employment programme. Beginning with Training of Rural Youth for Self-Employment (TRYSEM), a number of allied programmes have been added over the years such Development of Women and Children in Rural Areas (DWCRA), Supply of Improved Toolkits to Rural Artisans (STTRA), and Ganga Kalyan Yojana (GKY). The multiplicity of programmes, being viewed as separate programmes in themselves, resulted in a lack of proper social intermediate, absence of desired linkages among these programmes and the implementation being more concerned with achieving individual programme targets rather than focusing on the substantive issue of sustainable income generation. To rectify the tradition, Government have decided to restructure the self employment programmes.

A new programme known as “Swarnajayanti Gram Swarojgar Yojana (SGSY), has been lunched from April 1999. This is a holistic programme covering all aspects of self employment such as organisation of the poor into self help groups, training, credit, technology, infrastructure and marketing. SGSY is a centrally sponsored scheme funded by the center and the states on 75:25 basis.

II

CONCEPT AND MEASUREMENT OF POVERTY

In order to ascertain the determinants of rural poverty, it is imperative to explain how poverty is measured. In estimating poverty levels, defining poverty line is the first step. A poverty line demarcates the poor from the non-poor. It is identified as the minimum required consumption level of food, clothing, shelter, transport and healthcare. Three distinct measures of poverty have been used by most studies, following the popular Foster-Greer-Thorbecke (1984) poverty measure for a given population. First, the headcount index defined as the percentage of the population who live in households with a per capita consumption below the poverty line. Second, the poverty-gap index defined by the mean distance below the poverty line expressed as a proportion of that line. This
measure reflects not only the incidence of poverty, but also its depth. Third, the squared poverty-gap index defined as the mean of the squared proportionate poverty-gaps. Unlike the other two measures, it reflects the severity of poverty, as it is sensitive to inequality amongst the poor.

In India, a task force constituted by the Planning Commission in 1977 defined the poverty line for the country as a per capita consumption expenditure level, which meets the average per capita daily calorie requirement of 2,400 kcal in rural areas and 2,100 kcal in urban areas, along with a minimum level of non-food expenditure. Using the 28th Round NSS data, the task force estimated that, on average, consumer expenditure of Rs 49.09 per capita per month, in 1973-74, met the calorie requirement of 2,400 kcal per capita per day in rural areas. This monetary equivalent was set as the rural poverty line, and those with per capita expenditure below this level were defined as poor. The rural poverty line defined at the national level was used in all the Indian states.

However, this methodology ignored price differentials that existed across states. Hence, in 1989, the Planning Commission constituted an Expert Group, which estimated separate poverty lines for each state. Furthermore, it used the Consumer Price Index of Agricultural Labourers, a state-specific cost of living index, for updating the rural poverty line. This expert group methodology is followed in our study where state-specific rural poverty-headcount rations are calculated from state-specific poverty lines and distribution of persons by expenditure-groups.

The first step in estimating the incidence of poverty is to define a poverty line. The “Task Force of Projections Minimum Needs and Effective Consumption Demand” of the Planning Commission (1979), used and average energy (nutritional energy) requirement norm to define the poverty line. Since calorie is the unit of energy, the norm used was in terms of calories. The Task Force estimated the average daily per capita requirements for rural and urban areas by using the specific calorie allowances recommended by the Nutritional Expert Group (1968) for population groups of different age groups, sex and activity. In this manner, the Task Force attempted to capture in the average norms factors such as age, sex and occupational differences in the daily calorie requirement of the population. The calorie norms, thus, derived were rounded off to 2,400 calories per capita per day for rural areas and 2,100 calories per capita per day for urban areas.
The monetary equivalents of these norms were obtained by using: (i) data on the quantity and value of items of household consumption and (ii) the calorie content of the items of food consumed by population groups belonging to different per capita expenditure classes with appropriate conversion factors. The Task Force, thus, estimated, on the basis of the observed consumer behaviour in 1973-74, that, on an average, a consumer expenditure of Rs. 49.09 per capita per month was associated with a calorie intake of 2,400 calories per capita per day in rural areas and Rs 56.04 per capita per month with a calorie intake of 2,100 per capita per day in urban areas. In other words, the poverty line was defined as the per capita expenditure level at which the average per capita per day calorie intake is 2,400 calories for rural areas and 2,100 calories for urban areas. This poverty line serves as a cut-off line for separating the poor from the non-poor if the distribution of population with per capita expenditure below the level defined by the poverty line is counted as poor. The proportion of the poor to the total population is the Poverty Ratio (PR) or the Head Count Ratio (HCR). PR or HCR measures the incidence of poverty. It is, thus, defined as:

\[
\text{Incidence of Poverty} = \frac{\text{number of people below poverty line}}{\text{total population}} \times 100
\]

It is expressed as a percentage. This is useful for comparing the poverty situation in two areas like the rural and urban areas or different States or the situation in an area in the year 2005 compared to, say, 1995.

The computation of the poverty line for the base year (1973-74) has been done with prices of items in the base year. This is, therefore, updated for changes in prices over time. This is, then, used with distribution of population by different per capita consumer expenditure classes available from time to time from periodic surveys of the NSSO on household consumption to arrive

3. Ibid.
4. Ibid, P- 52.
at estimates of the number of the poor and the poverty ratio for subsequent years.

The measurement of poverty described above, namely, the poverty ratio or the head count ratio, is simply the proportion of the number of people below the poverty line in the population. This ratio, however, dose not make any distinction within the broad category of the poor on the basis of their actual levels of consumption and deprivation. Consequently, the poverty ratio fails to capture the depth and severity of poverty in an adequate manner. A measure developed for this purpose is the Poverty Gap (PG) Index. The PG Index calculates the total shortfall of consumption below the poverty line, per capita of the total population. This is, then, expressed as a percentage of the poverty line. It can also be calculated as:

\[
\text{PG Index} = \text{Poverty Ratio} \times \frac{\text{Poverty line} - \text{Per capita consumption of the poor}}{\text{Poverty line}} \times 1
\]

More comprehensive measures of the severity of poverty are the Squared Poverty Gap (SGP) and the Sen Index (SI). We shall not go into formulae for these measures except to observe that: (i) SGP is not PG x PG, (ii) it possesses the properties of both the Poverty Ratio and the Poverty Gap Index and (iii) in addition, it also captures the extent of variation in the levels of consumption of the poor. It is, however, sensitive to measurement errors at the shortfall in average consumption of the poor from the poverty line as well as the inequality in consumption among the poor.  

Indicators Covering Income and Non-income Dimensions of Poverty:

Poverty Ratios (PR) and measures related to PR provide a composite picture of people whose per capita consumption expenditure is below the level of per capita consumption expenditure corresponding to the basket of commodities constituting the desired minimum. These do not, however, provide a complete picture of the extent of deprivation or, alternatively, the state of

5. Ibid, P- 52.
well-being of the population. These are rooted in calorie consumption and do not say anything about several other factors that shape living standards, like: (a) the health status of the population like longevity, overall mortality, infant mortality, maternal mortality (mortality of women arising from child birth and related causes) and morbidity (prevalence of diseases) and in general, access to health services, (b) the nutritional status, (c) the educational status and (d) the living environment like housing access to safe drinking water and sanitation as also pollution-free air and water resources. Attempts have been made to capture these aspects in alternative measures of poverty.

a) The Human Development Index (HDI) and the Human Poverty Index (HPI)

As discussed in unit 3, the UNDP has been preparing Human Development Reports (HDRs) and making estimates of the Human Development Index (HDI) for different countries since 1990. The HDI incorporates three most critical and socially useful choices, viz.  

i) the choice to lead a long and healthy life;  
ii) the choice to acquire knowledge; and  
iii) to have access to the resources needed for a decent level of living.

The countries are ranked in order of the value of the HDI.

HDR also presents estimates of Human Poverty Index (HPI). This being a measure of deprivation, HPI makes use of the following for the three areas of choices referred to above:

i) Proportion of population not expected to survive beyond 40 years;  
ii) Adult illiteracy rate; and  
iii) (a) Percentage of population without sustainable access to an improved water source; and (b) Percentage of children aged 5 or below who are underweight for their age.

The National Human Development Report, 2001 prepared by the Indian Planning Commission follows the framework of human development adopted in the UNDP HDR. It presents estimates of HDR for 1981 and 1991 for the country and different States and Union Territories. It also gives estimates of HDI for 2001 for the country and for 15 major States. Estimates of HDI for the other States and
Union Territories could not be prepared due to lack of comparable data for these States for 2001.

b) **Gender-related Development Index (GDI) or Gender Equality Index (GEI)**

The Human Development Index (HDI) that we have discussed so far is based on indicators reflecting economic, educational and health attainments of the population. It does not, however, reflect gender-based disparities in such attainments. Gender-based discrimination is prevalent in every society–developed or not–to a lesser or greater degree. Such discrimination results in a higher incidence of poverty in the female population than in the male population, in whatever manner we measure poverty. Gender-related Development Index (GDI) or Gender Equality Index (GEI) seeks to reflect gender disparity in human development. This will help to focus attention on aspects of development planning that fail to reduce gender discrimination. This index is estimated as a proportion of economic, educational and health attainments of females to that of males. The common set of variables for which the attainments of females and males are compared is the same set that is used in estimating HDI.

c) **Capability Poverty Measure (CPM)**

UNDP HDR 1996 had also developed a **Capability Poverty Measure (CPM)** for different countries. Three indicators, (i) the percentage of children under 5 who are underweight (ii) the percentage of births unattended by trained health personnel and (iii) the percentage of women aged 15 years and above who are illiterate, were used for computing CPM.

**HUMAN DEPRIVATION & TRADITIONAL MEASURES OF POVERTY:**

Hunger and malnutrition are the basic forms of human deprivation. Other dimensions of deprivation could be due to lack of access to basic health services, housing, primary education, drinking water, sanitation, etc. Economists categorise all of them, together as essential goods and services and define poverty as a condition of not having adequate personal income to procure these essential goods.

and services. Noting that food is the most essential of all these commodities, they defined poverty as not having enough personal resources to acquire adequate food, such as two square meals a day. When economists were vague about what constitutes the basic food requirement such as two square meals a day, Dandekar and Rath (1971) used the ideas contained in Sukhatme’s work and defined a minimum calorie requirement for a reference individual and adjusted it to capture the average calorie requirements at the all-India level for rural and urban sectors depending on the demographic and occupational distribution of the population. Dandekar and Rath determined using NSSO the total expenditure at which the households meet this average calorie requirement and called it the poverty line. The official poverty line is primarily based on this methodology developed by Dandekar and Rath, which was itself based on Sukhatme’s pioneering contribution on measuring hunger.

V K R V Rao criticized Dandekar and Rath’s approach, stating that what it measures is undernutrition and not poverty. Sukhatme was also critical of this approach as it uses the average requirement for each person of given age, sex and occupation category rather than the minimum requirement over a homeostatic time interval. More specifically, Sukhatme stated that if calorie intake is $x$ and calorie requirement is $y$ (both of them depend on age, sex, occupation and activity) and their joint distribution is $f(x, y)$ then the extent of undernutrition or hunger in the aggregate is given by:

$$U = \int_{x < y} f(x, y) \, dx \, dy$$

One must note two important aspects of this definition of undernutrition. First, the requirements are specific to each individual depending on his or her age, sex, occupation, condition of health, etc. Second, the variables $x$ and $y$ are measured over a homeostatic period in which the intake being less than the requirements makes sense. He was of the view that the capacity of a person to
perform work is not limited by his current calorie intake but by the efficiency with which he converts the calorie intake into metabolisable energy over his homeostatic range of intake.

In recent years, there has been a considerable debate on the way poverty estimates are made in India. An excellent discussion is found in the work of Deaton and Kozel (2005). That entire debate is based, however, on accepting the basic methodology of Dandekar and Rath. It was focused on several empirical shortcomings of data used and the dogma associated with it.

There are some other major directions in which poverty research has been commented upon recently. It is noted that the calorie norm itself is inappropriate. Behreman and Deolalikar (1987) found that the poor substitute, even at low levels of income, luxury food items for food items with higher calories when their income rises marginally, implying that the poor’s preferred need is not necessarily that of meeting the calorie requirement. Rath (1996), Rath (2003) and Sen (2005) demonstrate that the actual calorie intake has fallen below the norm over the years even at poverty line levels of income. Meenakshi and Viswanathan (2003) demonstrate that while poverty line-based poverty has increased, calorie deprivation has increased. The main theme of most of these papers is that the poverty line is measured for a reference group for a reference year and it is adjusted for other non-reference groups and non-reference years using price deflators. The changing poverty lines so determined do not conform to the calorie norm used in defining the reference poverty line.

It is also suggested that instead of the research economist suggesting what should be the poverty line, the responding household or individual must answer a minimum income question stating at what level of income he or she would consider that his or her both ends are met, thus, going back to the vague definition of the poverty line that prevailed before the works of Sukhatme and Dandekar and Rath (Pradhan and Ravallion 2000). Kumar, Mallick and Holla (2007) show that cereal consumption deprivation, a major component of poverty in India, has little
correlation with the various traditional measures of poverty, thus questioning the practical relevance of the traditional measures of poverty if consumption deprivation of essential commodities is the focus of any study on poverty. Lipton (1997) picks a few holes in the prevailing traditional methodology of poverty measurement. In particular, he comments that the severity of poverty measured by a traditional Foster Greer, Thorbecke (1984) type of measure lacks intuitive economic meaning. Atkinson (1987) commented, nearly two decades ago, that there is a need to bring about a vertical integration between poverty measurement and welfare economics based on consumption.

Some of the essential goods and services such as food are private goods supplied mostly through the market mechanism, while some others such as primary health services, drinking water, and sanitation are public goods provided by the government. A few other essential goods and services such as education and non-primary health services are quasi-public goods provided by non-governmental organizations. The economic access to these basic goods and services is determined not only by the sources at the command of each individual or individual household but also by the quantity and quality of public and quasi-public goods provided by the government and non-governmental organisations. Thus, personal income is not the major determinant of poverty. The traditional methods of poverty measurement based on income or total expenditure and its distribution thus seem to be only an indirect way to study poverty. Direct measures of poverty, based on consumption of essential commodities and its distribution, will be more useful.

NEW MEASURE OF POVERTY BASED ON ENGEL CURVE:

We follow the route suggested by Atkinson (1987) and try to integrate poverty measurement with basic microeconomic analysis if demand for an essential commodity. The norm we choose for measuring consumption deprivation is a norm based on actual economic behavior with its roots in the famous Engel law of consumption behaviour. Our approach can be explained easily by identifying two different ways of viewing poverty. One may view poverty at an individual level and then aggregate it over the set of all those who are poor in a given community. This requires associating poverty with the condition of the poor. There is an alternative view where one can consider an individual as a member of a community and it is the situation of the individual within the community that determines what norm the individuals within set for themselves. It is this
interaction of an individual with other members of his/her community that determines his priorities in consumption and what her requirements are. A saturating Engel curve for essential commodities provides the community-based objective measure of such consumption requirements of an essential commodity. While any point on an Engel curve depicts the average consumption at a given income (or total expenditure) for that community, the saturation level depicts the average consumption on an essential commodity if the individual is not constrained by low income. We take this saturation level of consumption on an essential commodity as the requirement of that commodity. It is the cumulative shortly of actual consumption of and essential commodity from this norm that we define as consumption deprivation.

It is the consumption deprivation of an entire community with respect to all essential commodities that constitutes poverty of that community. This is the approach kumar et al (1996) and Sitaramam et al (1996) took. In the latter work, a hierarchy of needs was established. Poverty was then defined as consumption deprivation of the most essential commodity, cereal. The Engel curve provides a wealth of information on a community’s consumption behaviour at various levels of total expenditure and for different family compositions. Dandekar and Rath (1971), Rao (1981) and Deaton and Tarozzi (2000) came very close to taking a full view of the Engel curve but confined to look at the poverty line portion of the Engel curve, only with the intention of determining the total expenditure that supports minimum consumption of food.

In determining the total expenditure at which the minimum calorie requirements are met, Dandekar and Rath used the observed empirical relation between food expenditure and total expenditure. Bhanoji Rao used the typical properties of an Engel curve of a necessity to suggest that the proportion of food expenditure increases, reaches a maximum and then declines. He suggested that the point where this proportion reaches a maximum could be taken as the threshold for acute poverty and suggested that one and half times that level can be taken as the poverty line. He left the Engel curve behind after deriving a poverty line from it. The Engel curve for a commodity is actually the demand function for that commodity, keeping the prices constant. It depicts the consumption behaviour of persons or households with different contributions to consumer behaviour and consumer demand functions, also examined the poverty issue from the traditional approach alone and ignored looking at the entire Engel curve for essential commodities.
Sitaramam suggested using commodity-specific consumption deprivation, such as cereal or food consumption deprivation, as a measure of poverty. Kumar, Gore and Sitaramam (1996) demonstrated that this new measure satisfies various properties that a poverty measure should satisfy, except the focus axiom as there is no poverty line for identifying who the poor are. They even suggested that there is no need to have a poverty line to measure poverty. They showed that a standardized cumulative commodity specific consumption deprivation index falls within the class of deprivation functions Atkinson suggested for a class of poverty indices. Taking an essential commodity for which the Engel curve is concave, they postulated that the Engel curve would admit a saturation level of expenditure. As the Engel curves normally used in economics do not admit a finite asymptote they used a functional form that does admit such a finite asymptote, a form suggested by the saturation curves used in catalysis. The deprivation function derived from the saturating Engel curve and the associated deprivation or poverty index are depicted in Figure 1.

Taking an essential commodity such as cereals, we get the following commodity-specific consumption deprivation index (poverty index):

\[
D = \frac{C^* - C(y)}{\int_{C^*} f(y)dy}
\]

where \( C^* \) is the maximum value of consumption expenditure, \( C(y) \) denotes the actual mean consumption at a given level of total expenditure \( y \) and \( f(y) \) is the probability density function of total expenditure. As the deprivation function is a monotonic decreasing function in \( y \), the above infinite integral converges and has a finite value.

We may list here some important aspects of this new measure of derivation. While the poverty line is subjectively chosen by researchers, the norm used in our deprivation index is determined by the socio-economic setting in which a household is situated. It is objectively derived empirically from the observed Engel curve. To the extent that this is estimated, it is subject to probabilistic errors. Kumar, Gore, and Sitaramam (1996) suggest several interesting statistical problems that arise as a result. This index is based on economic consideration and not on nutritional and other normative considerations. The index shares one feature that was inherent in Sukhatme’s approach to measuring hunger. This measure is crucially dependent on the distribution of “actual consumption deprivation” of an essential commodity in the community relative to the community-specific saturation norm (assumed to be the same for all individuals in
the community). The traditional measures of poverty are related to the consumption deprivation only through an indirect and weak link between income and/or total expenditure and consumption deprivation. The index is such that if there are more persons or households with greater consumption deprivation, greater is the contribution of that group to poverty. Thus, this deprivation index measures severity of deprivation.

NEW POVERTY LINES FOR INDIA:

The basic approach of setting the new poverty line similar to the exercise attempted by Deaton. The last year for which Deaton’s exercise is reported is 1999-2000. However, for calculations in this study we have used the consumption expenditure survey of 2004-05. Apart from the fact that the 61st round is free from all the problems of contamination (which even though does not affect unit values, is not the right survey year because of the problems inherent in budget shares), it is also the most recent quinquennial round for which the consumption expenditure data is available.

The second point of departure is that interstate and rural urban price indices used in the calculation of the new price indices are much more comprehensive than the indices used by Deaton which were primarily based on food prices. However, we follow essential suggestion of Deaton of using price data from NSS surveys rather than the CPI price data. This is possible for food, fuel, clothing and footwear, which together account 75-80% of consumption of poor. Among other items, we have used the Employment/Unemployment Survey (EUS) of NSS 61st round to create a price index for education expenditure and for the index health expenditure we have used the 60th round NSSO survey which was focused on health expenditure. CPI indices from Saluja-Yadav’s calculation for the expert group have been used for remaining goods and services, other than rent and conveyance. Our NSS unit-based indices thus cover 90% of the consumption basket of the poor excluding rent and conveyance, final poverty lines also use actual NSS expenditure on rent conveyance.

The third point of departure is that we use the all-India urban poverty line of 2004-05 as the starting point of other state poverty lines in urban areas and also in rural areas. However, this is not an arbitrary choice, but is based on evidence which we present in the following section. While there is no attempt in this study to decide new normative poverty lines either rooted in a nutritional norm or any
other objective criterion and take the official poverty line as starting point, we do cross check the suitability of the existing poverty line in capturing the poor using external indicators.

The fourth point of departure is that the budget shares used in our calculation of price indices are based on mixed recall period. This is justified in light of the fact that NSSO has already moved to the MRP reference period in its annual round after 1999-2000. This is likely to continue in the future and therefore any new poverty line should be based on MRP estimates of consumption expenditure rather than URP estimates which has been the practice so far.

NSSO PRICE DATA:

As with Deaton’s exercise, our poverty line relies on the indices created using price data from the NSSO consumption expenditure survey, but with the 2004-05 round of consumption expenditure data we use the price data obtained from the consumption expenditure survey for food, intoxicants, fuel, clothing and footwear. For all these items price data can be obtained from the consumption survey. However, unlike Deaton, we use median prices of each item in each state and sector. For PDS items (rice, wheat, sugar and kerosene), the prices are obtained after aggregating the PDS and non-PDS items together. For, clothing and footwear we have used the prices obtained from the 365-day estimates of these commodities. Some items, which are insignificant in terms of their consumption share, have been dropped. The cut-off for selecting these items is Rs. 0.15 per month (Rs 1.8 per year for 365-day items). If these items have lower than this consumption in six or more states out of a possible combination of 70 values (35 states and union territories for rural and urban areas each) they have been dropped. Implementation of this procedure has led to 11 items being dropped. For those states and sector where the items has been consumed by less than five households, it has been treated as not being consumed in that state.

The all-India prices are not calculated directly from the unit data but are derived from the state prices. Using state quantity shares and prices, the all-India price of each item is the weighted-average of state prices. The weights used in this case are the population weights from the census. These state-wise price and quantity data are used to obtain a Paasche index and Laspeyre index for each state relative to all-India. The geometric mean of these gives us the Fisher’s index for each state relative to all-India. We repeat the same procedure to obtain urban to
rural Fisher index for each state. These indices were obtained for all states including the north-eastern states. However, we have dropped union territories from the calculation at this stage.

This procedure has been used for food, fuel, clothing and footwear. For all these items and item groups, the unit values can be obtained from the NSS consumption expenditure surveys. For the education, there are no such unit values that can be used. Therefore, we have used the EUS of NSSO for obtaining the index of cost of education. For this purpose, we have calculated the cost of education per schoolgoing child in each state for rural and urban areas for children in the age-group of 5-15 from the 61st round (2004-05) of EUS. For the index of health expenditure we have used the 60th round (January-June 2004) which focuses on health expenditure. For construction of the index, we have calculated health expenditure per treatment in case of non-institutional medical care and health expenditure per case of hospitalization for institutional medical care.

While these items together (food, fuel, clothing, footwear, education and health) cover around 85% of the consumption basket of the poor, we still require an index for the remaining items of expenditure. Major heads of expenditure for which the index cannot be computed from the NSS surveys are conveyance, rent, durables, entertainment and miscellaneous goods and services.

III

REVIEW OF LITERATURE

In the literature, there has been substantive discussion and debate on the determinants of poverty. Traditional focus in development thinking has been on how economic growth leads to poverty-reduction as it increases per capita real income levels to increase incomes of the poor. This is referred to as the ‘trickle-down’ effect of growth, which simply implies a vertical flow of income from the rich to the poor at a given rate (Kakwani and Pernia 2000). In this process, the benefits of economic growth are reaped first by the rich, and subsequently by the poor once the rich start sending their gains.

We can identify three mechanisms through which economic growth leads to poverty-reduction. First, there is the ‘income-effect’ of growth, where the average income of the poor increases pair passu with growth. Second, economic growth leads to employment creation, which yields incomes for the poor to sustain
their private consumption. Thus, the poverty reducing impact of growth depends upon the employment elasticity of growth. Third, rapid growth has multiplier effects, which raise the returns to income-earning assets of the poor and sustain their consumption. For example, economic growth raises government revenues, which, if invested in public goods and services disproportionately consumed by the poor, could reduce non-income facets of poverty such as high infant mortality and low life expectancy (T N Srinivasan 2000).

Yet, we must also consider the view that more rapid growth may possibly be associated with increases in poverty levels, at least in the short-run. This is best explained by the simple arithmetic of poverty, inequality and growth (Bourguignon 2004). A change in the poverty headcount index is decomposed into the effects of a proportional change in all incomes (growth effect) and a change in the distribution of relative incomes (distributional effect). Hence, if a adverse distributional effect is greater than the mean growth effect, rapid growth may be poverty-enhancing. Kuznets’ inverted-U hypothesis explains that growth caused by a reallocation of resources from low-productivity sectors to high productivity sectors may initially raise inequality. This in turn, may increase poverty if it outweighs the positive impact of growth. Intuitively, rapid economic growth may raise poverty in several ways. First, as Srinivasan (2000) argues, a high rate of economic growth could erode the asset base of the poor to which they previously had free access, e.g., common-property resources. Second, rapid growth resulting from a shift in the composition of government expenditure away from the provision of subsidies to the poor towards investment in growth-promoting infrastructure could raise poverty temporarily.

While recognizing the caveats outlined above, there is a broad consensus in the literature that economic growth is crucial to poverty-alleviation. An increase in the size of the cake reduces poverty unless all the gains from growth accrue to the non-poor. At the same time, Datt and Ravallion (1998) argue that in analyzing the determinants of poverty, it is useful to explicitly consider the sectoral composition of growth. Specifically, it would be analytically logical to assess, separately, the effects of agricultural growth and non-agricultural growth on rural poverty. Given that agriculture is the predominant economic activity in rural India, the importance of agricultural growth in affecting rural poverty levels is obvious (Ahluwalia 1978; Ninan 2000; Datt and Ravallion 1998). Intuitively, one can see that the agricultural sector affects the rural poor in several ways. First, higher agricultural output helps reduce food prices and improve food availability, both of which help
the poor. Second, it creates employment opportunities in the agricultural sector and, through linkages, enhances growth in the non-agricultural sector.

Since 1980-81, however, with a continuously falling share of agriculture in GDP, analysing the impact of non-agricultural growth on poverty-reduction makes for a relevant exercise, Datt and Ravallion (1998) argue that while high agricultural growth is crucial to rural poverty-reduction, non-agricultural economic growth is also important. It is a fact that many people in the rural areas are engaged in non-agricultural employment. Moreover, the large literature on dualistic-development models suggests that there is a reasonably strong link between the non-agricultural sector and the agricultural sector. Importantly, Datt and Ravallion (1998) explain that the impact of non-agricultural growth on rural poverty is enhanced by progress in human-resource development and other facets of rural development.

In recent times, there has been a significant shift in focus in the poverty literature away from the ‘trickle-down’ concept of growth towards the idea of ‘pro-poor growth’, Kakwani and Pernia (2000) define pro-poor growth as “growth that enables the poor to actively participate in and significantly benefit from, economic activity”. The ideal outcome of such a growth process should be that no person in society is deprived of the basic minimum needs. Usually, however, owing to inherent advantages enjoyed by the rich in terms of material and human capital, the growth process generally tends to benefit the rich proportionately more than the poor. Hence, promoting pro-poor growth requires a strategy that is deliberately biased in favour of those below the poverty line so that they benefit proportionately more than the rich. Moreover, a pro-poor growth strategy entails the removal of institutional and policy-induced biases against the poor, as well the adoption of direct pro-poor policies. For instance, macroeconomic policies such as overvalued exchange rates and public infrastructure spending biased against rural areas constrain pro-poor growth. On the other hand, adequate public spending on basic education and health services represent direct pro-poor policies.

Hence, it becomes necessary to identify and control for other factors that can reduce poverty directly even if growth does not increase, or which can improve the mapping of growth onto poverty.
(a) **Public Expenditure**

Public spending in India is divided into development and non-development spending with the former being important from the viewpoint of poverty-reduction (Fan, Hazell and Thorat 1999). Development spending in turn, is subdivided into spending on social services and economic services. While the former includes education, health, social security and other community services, the latter consists of agriculture, industry, trade and transportation. Public development expenditure aids in rural poverty-reduction in two ways. First, public expenditure on poverty-alleviation programmes and social services could directly reduce poverty by raising private consumption and supporting social consumption of the poor (Ghosh and Sen 1993). Second, public expenditure on infrastructure could indirectly reduce poverty if it creates employment for the poor through multiplier effects.

(b) **Inflation**

Since poverty relates to the inability to meet a minimum consumption requirement, it is invariably related to the purchasing power of people. The purchasing power of the rural poor is largely a function of the real wage they receive, and a positive rate of inflation erodes this real wage. This naturally affects the ability of poor people to meet the specified minimum level of consumption. In typically unorganized labour markets, nominal wages are not indexed to the cost of living. Hence, it is argued that the rate of inflation has an adverse effect on rural poverty through its impact on real wages (Datt and Ravallion 1998; Ninan 2000).

(c) **Human Development**

The need to combine human-resource development along with other growth-promoting policies to formulate an effective anti-poverty strategy is a prominent theme in the literature. Hence, in recent years, poverty has come to be viewed not only in terms of lack of adequate income, but as a state of deprivation of the poor, which prevents their effective participation in the growth process (UNDP 2001). This has resulted in the renewed focus on development indicators in the area of education and health attainments, considered crucial to capacity building.

The relationship between education and measures of well-being is borne out by theory and history. Labour is essentially the only source of income for the poor. Hence, increasing the productivity of labour through education provides sustainable means of poverty-reduction. Dreze and Sen (2000) highlight the instrumental role of education in enabling people to make use of economic
opportunities created by the growth process. The best example of this is Kerala where an extremely high literacy rate of about 90 per cent has underlined India’s most successful performance in rural poverty-reduction. In contrast, Bihar, the weakest of the large Indian states in terms of long-term poverty reduction is characterized by an abysmally low literacy rate. Datt and Ravallion (1998) show that initial levels of education affect the poverty-reducing impact of growth.

(d) Infrastructure Development

Investment in physical infrastructure contributes significantly to the pursuit of socially inclusive development (Ali and Pernia 2003). In the context of the rural sector, the discussion on physical infrastructure in the literature focuses on roads, irrigation facilities and electricity. Ali and Pernia (2003) combine these three components of physical infrastructure in a simple analytical framework, which shows that infrastructure investment influences agricultural productivity, non-agricultural productivity and non-agricultural employment. These, in turn, impact upon rural economic growth and wages and employment of the poor, thereby affecting their real income or consumption levels. For example, investment on road may result in increased agricultural productivity, non-farm employment and productivity, directly raising wages and employment of the poor and hence consumption levels.

(e) Inequality in Assets or Endowments: Distribution of Land Ownership

Inequality in ownership of physical assets, just as much as inequality in endowment of human capital, affects the participation of the poor in the process of economic growth. Landlessness is identified in the literature as a root cause of rural poverty in India. In a country where agriculture is the principal means of livelihood and land is the primary physical asset of rural people, access to land is an important determinant of material well-being. It is argued that a reduction in the inequality of ownership holdings would help alleviate rural poverty by providing the landless with the chance to obtain sufficient produce for self-consumption, Datt and Ravallion (1998) argue that landlessness represents a difference in the initial condition of states, thereby impacting upon the poverty reducing impact of growth.

In sum, government in India over the years have relied on two basic approaches to reducing poverty. The first is based on the expectation that the effects of aggregate economic growth would spread to all sections of society such that poverty-reduction is achieved alongside increases in economic growth. The
second has relied on specific anti-poverty programmes, particularly since the 1980s. The various channels through which the poor have benefited from economic growth have been outlined extensively in the literature. However, very few attempts have been made so far to empirically test the impact of anti-poverty programme on rural poverty levels.

Numerous studies have been made in recent years on the trends of poverty, inequality and levels of living in Indian states during the 1990s. Some have highlighted the reduction in poverty (Sundaram and Tendulkar 2003; Bhanumurthy and Mitra 2004) while some others have expressed anguish over the rising economic inequality (Deaton and Dreze 2002; Sen and Himanshu 2004; Krishna 2004).

Very few studies have been attempted any district level analysis. Again, most of them were based on small segment of the country. Sastry (2003) had discussed the feasibility of using the National Sample Survey (NSS), Consumer Expenditure Survey (CES) data for district level poverty estimates in its entirely based on the NSS 1999-2000 (55th round) survey. But the main bottleneck that refrained researchers from generating sub-state or district-level estimates from NSS data was the nature of sampling design. It was only in the 61st round survey of NSS (2004-05) that the sampling design defined rural and urban parts of district as starts for selection of Sample villages and blocks respectively. This has paved the way for generating unbiased estimates of important socio-economic parameters at the district level adequately supported by the sample design.

During the process of implementation, several distortions appear and the original intentions of the programme are affected to the extent deviations from the avowed objectives take place. IRDP is no exception in this regard. Various evaluation studies about the programme has been made which reveal that actual percolation effect of the programme has been much less in terms of poverty alleviation as compared with the impressive figures doled out by the Government reports in terms of subsidies, bank credit and poverty line crossers.

The IRDP’s target group consists of the poorest of the rural - small and Marginal farmers, agriculture and Non- agricultural labourers, rural artisans and craftsmen, Scheduled Cast (SC) and Scheduled Tribe (ST) families who live below the poverty line. The Government of India manual (Government of India : 1980) defines the target group of benificiaries as:
Small Farmer :- A cultivator with a land holding of 5 acres or below is a small farmer.

Marginal Farmer :- A person with a land holding of 2.5 acres or below is a marginal farmer.

Agriculture Labourers :- A person without any land, but with a homestead and deriving more than 50 per cent of his income from agricultural wages is an agricultural labourer.

Non-Agricultural Labourer :- A person whose total income from wage-earning does not exceed Rs. 200 per month is a non-agricultural labourer.

On the basis of the NABARD surveys of IRDP, Professor Nilkanth Rath includes: “The NABARD (1984) survey shows the percentage of beneficiaries wrongly classified to be 42 per cent in Assam, 17.76 per cent in Haryana, 35 per cent in Punjab, 19 per cent in M.P. and 13 per cent in Maharashtra. As against this, the survey showed 11 per cent misclassification in the surveyed districts of Tamil Nadu and Karnataka, 7 per cent in Andhra Pradesh and hardly one per cent or less in Orissa, Bihar and Uttar Pradesh. On the whole, however, it would not be improper to suggest that at least 15 per cent of those identified as poor and helped under IRDP did not really belong to the category of the poor, (Nilkanth Rath : 1985).

A.C. Kutty Krishna on the basis of his study in Kerala concludes, “The majority of the beneficiaries to the extent of 80 per cent (based on annual family income of less than Rs. 3,500) and 63.25 per cent (based on monthly per capita income of less than Rs. 76) were not eligible for assistance under the programme. Targets are fixed without realistically understanding the magnitude of poverty in a specific region resulting in benefits being liberally passed on the well-off sections” (Kutty : 1984).

Similarly Professor Indira Hirway, Gandhi labour Institute, Ahmedabad on the basis of a study of four selected village in Gujarat concludes :

Firstly the non-poor households dominate among participants, about 55 to 75 per cent of the participants are non-poor in these villages. And secondly, the non-participants mainly belong to the lowest three deciles of consumption levels”. (Indira : 1984)
Indira Hirway also observed that spatially IRDP and the schemes for beneficiaries have reached mainly the developed villages. The study showed that “inspite of the running of the special programmes for more than five years, irrigated and agriculturally prosperous villages had more unequal distribution of household consumption levels than the rainfed villages, which indicated that with the getting the roots of inequalities were perhaps getting stronger in these village economics” (Indira Hirway : 1984).

In a study conducted in 1984 by the Institute of Rural Management, Anand, in two blocks of Sabarkantha district of Gujarat, it was found that with the average investment of Rs. 2,337 per beneficiary family, nearly 40 percent of the beneficiaries assisted with milch animals had crossed the poverty line when their family incomes were computed at the current prices and 32 percent when their incomes were adjusted for inflation. Besides, all the remaining beneficiaries as well, had registered marked improvements in their family incomes ranging from 11 to 98 percent at current prices and 0.39 to 81 per cent at the base year (1979-80) Constant prices (Katar Durgaprasad & Vengama : 1985).

Although IRDP requires that the beneficiaries should be selected from the poorest group below poverty line, it has so happened that in quite a few states a sizeable number of beneficiaries selected belong to the category of small and marginal farmers. The percentage of such beneficiaries varies from state to state and is sometimes as high as 30 percent. This has resulted because of the relatively better variable of small and marginal farmers from credit angle and the preference of block official and credit agencies extending assistance to them (Planning Commission, 1983). Professor Rath mentions: “If this legitimate expense is taken into account, the percentage of beneficiaries who might have crossed the poverty line will come down very considerably” (Nilkanth Rath : 1984). If this is adjusted the proportion of beneficiaries who would have really risen above poverty would come down to less than 10%. “Therefore, it would not be far wrong to estimate that at the end of 2 Years of operation of IRDP about 3 percent of the poor households in rural India would have been helped to leave poverty, even if for a while only. (Rath : 1984).

Under Swarnjayanti Gram Swarozgar Yojana (SGSY), the beneficiaries are known as ‘Swarozgaries’. The Swarnjayanti Gram Swarozgar Yojana lays
emphasis of the group approach, under which the rural poor are organised into Self Help Groups. (Guidelines : Government of India).


Reviewing the available literatures reveals a limited number of studies being done on micro financing SHGs and their impact on rural poor, especially with reference to India. Many of the studies (LATHIF : 2001, Khandkar : 2000) reveal that increased availability of micro-credit to the poor through micro financing SHGs will enable rural households to take up larger productive activities, empower the poor women, decrease the dependence on exploitative local money lenders and increase savings. A study of National Bank for agriculture and Rural Development (NABARD), which covered 560 SHG member households from 223 SHGs across 11 states, showed many positive results on the impact of participation of rural poor in the SHGs. It shows that there have been perceptible and wholesome changes in the living standards of SHG members in terms of ownership of assets, borrowing capacities, income generating activities, income levels and increases in savings (NABARD : 2002).

IV

NEED FOR STUDY IN BARPETA DISTRICT

Poverty alleviation has been on the centre and the State since independence. The socio-economic problem like poverty poverty is the single most factor affecting the people specially in rural areas as they get insufficient food (or calorie), have in adequate employment avenues and have little access to health and also education awareness. Fast increasing population has far then aggravated the problem due to increased pressure on natural and other material research. Since 1952, as per the on going five year plan, the thrust has been laid in enlarging the outlay of rural development activities such as agriculture, social welfare, PDS, rural development programmes and so on. But inspite of so many efforts, the performance is far from satisfactory with regard to many social and
economic sections such as education, health, sanitation, safe drinking water, housing and agriculture. Further, the poor infrastructure is making it difficult for poor to avail different services. Besides, various rural development indicators such as high illiteracy (55.31%), high IMR (80%), households not covered with safe drinking water (44.08 %), household without sanitary facility (91.16 %), household without electricity (68.9 %) and high incidence stood in the way of development process made in rural areas.

Illiteracy and lack of access to health services have led to deprivation of capability in the rural poor. This has reducing their ability to take advantage of economic opportunities.

- **Rising Unemployment**

Barpeta district is one of the most backward districts in Assam. The conscious people in general and leading citizens in particular have expressed great concern towards various problems of this district. Specially the youths of this district are getting frustrated with the enhancing trend of unemployment problem. “From among more than 16 lakh population two lakh educated unemployed youths have caused a dire situation due to lack of long-term schemes of the government.” According to 2001 census report, out of the total 16, 42, 420 population, 1, 15, 046 live in the urban while as many as 15, 26, 957 live in rural areas. Out of it there are 8, 46, 106 males and 7, 98,631 females in Barpeta district. Now it can easily be assumed how much the population has increased during the last six years.

Under this circumstances, implementation of self-employment programmes like Integrated Rural Development Programme (IRDP) and Swarnajayanti Gram Swarojgar Yojana (SGSY) in essential for Barpeta district.

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“The number of unemployed people registered in April 2005 by Barpeta district Employment exchange is 83, 413. Out of this, 67, 775 are male and 15, 638 are female. Among them 7, 269 have passed the BA exam, 1, 842 B. Sc, 383 B. Com, 15, 591 HSSLC and 39, 679 have passed the HSLC examination”9. For absorment of such a huge amount of unemployed people in government, semi-government or public sector undertaking establishment is not possible in district like Barpeta. From this point of view also self-employment programmes like IRDP, SGSY is meaningful source of employment. Though the Barpeta district has registered 930 technical, 372 electrical, 1,122 productive and 346 ITI unemployed youths, yet there are many more still to be registered.10 As per an unofficial account there are nearly 85,000 unregistered unemployed youths in the district.11 The final link of the employment programmes like IRDP, TRYSEM, SITRA, FWP, NREP, RLEG, JRY, JGSY etc. to sole SGSY and whose ultimate aim is to enhance employment scenario is urgently need for the Barpeta district. Because programmes like SGSY is a holistic scheme which encouraged micro-finances covering various aspect of self-employment namely organisation of rural poor in self-help groups (SHGs), Capacity building, training upgradation and providing credit to swarozgaris and helping them for marketing their products.

This alarming unemployment situation of Barpeta district indicates its gloomy future. The unemployed segment of the society eagerly awaiting the steps to be taken by the district rural development agency (DRDA) to implement centrally sponsored poverty eradication programmes like IRDP, SGSY etc. otherwise the unemployment problem of this district will affect adversely the socio-economic and financial system of Barpeta in particular and the state of Assam in general.

- Exploision of population:

Barpeta district ranks fourth in overall ranking among the districts population size in Assam. The percentage of decadal variation in population in Barpeta district is +18.53. The intellectual section of Barpeta district is of the opinion that the curse of poverty is very much responsible for the present

9. The Assam Tribune, Guwahati, Dt- 17.05.07.
10. Ibid.
11. Ibid.
explosion of population. “As per 1991 population census there were 13, 85, 659 population in Barpeta district. The same is increased to 16, 47, 201 in 2001. The density of population of this district is 427 and 508 as per 1991 and 2001 population census respectively. The decadal percentage in between the period 1971-1991 and 1991-2001 is 43.02 and 18.87 respectively”. When 12.02 percent labourers are estimated in the state, Barpeta district has surprisingly 18 percent. Its total area is 3245 Sqkm. and total tillable land is 2,47,000 hectares. To divert a section of this agricultural labourers from agriculture to other sources of income, self-employment programme is the only answer.

It is seen that in Barpeta paddy is cultivated in 365 hectares, gardening in 6,000 hectares and the remaining 2000 hectares is lying fallow. Rice is the principal food item of the people of Barpeta district. Whatever produced from the cultivable land of the district concerned is insufficient to meet its demand. At a time when the average production of rice in the State in 11.21 quintal per hectare and 15.67 in the country, it is only 8.57 quintal in Barpeta district. For purchasing the principal food item like rice peoples are required money. Though proper implementation of self-employment programmes like IRDP, SGSY etc. people can get a way of earning money. So, low productivity of agriculture, mass dependence on agriculture, population explosion, rising unemployment, recurring floods and erosion etc. hampers the earning of the people of Barpeta district.

Under this Circumstances, proper implementation of Centrally Sponsored poverty alleviation programmes can only help in raising the income of the people of Barpeta district.

From among more than 16 lakh population two lakh educated unemployed youths have caused a dire situation due to lack of long-term meaningful income oriented schemes of the Government of Assam. Therefore, centrally sponsored schemes are essential for the people of problem-torn Barpeta district so as to eradicate poverty from this agricultural-base district.

- **Low Literacy**:

The 2001 census revealed that literacy rate in Assam is 53 % or in other

14. Ibid.
words 47% of the people are illiterate. Illiteracy has far reaching consequences on the socio-economic development of the state. The present study has brought out categorically that the states with higher illiteracy have lower poverty and higher per-capita income. In the context of participatory planning, lack of literacy leads to low awareness level, which is reflected in the poor participation of people in the Gram Sabha. In several cases beneficiaries are not able to take the desired advantage of programmes due to their low capabilities and inability to perform. Also rightly pointed out by Amarta Sen that the illiteracy deprives a person of acquiring capabilities and then to all the opportunities for good living (Dreze, 1995). It has been analysed that in both state as well as international comparisons, literacy has direct impact on poverty and the states which have higher literacy have lower poverty ratio.

**Other Issues**: Barpeta is regarded as one of the most backward district of the State of Assam. No doubt, the district is highly rich in cultural heritage. Yet it is seen that Barpeta district is still lagging far behind in case of economic front owing to non-existence of organised industrial growth and for absence of organised and systematic efforts for infrastructural upliftment. In Barpeta district the avenues of employment opportunities are very much restricted to government jobs, transport business, shopkeeping etc. of course, the district has enough scope for development to attain self-sufficiency in the fields of agriculture, traditional handicrafts, jute-based industry, pisciculture, sericulture, horticulture handloom and textiles, agro-based industries etc. with the formation of self-help groups under SGSY is the way to accelerate the employment avenues in the Barpeta district. Therefore, Barpeta District need at this moment strong and prudent public leadership, proper planning by the district rural development agency (DRDA) so as to implement Centrally sponsored poverty alleviation programmes like IRDP, SGSY in a meaningful way. Besides this, proper utilization of state and central fund meant for poverty alleviation, utilization of existing district base resources, political maturity and above all hard work culture is highly need for the district of Barpeta.

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15. The Assam Tribune, Guwahati, Dt.-01.04.08.
V
METHODOLOGY OF RESEARCH

(A) The scope of the study is limited to rural poverty to Barpeta district during the period from 1993-2008. Our data cover the period 1993-2008 for the five rural development blocks of Barpeta district. Our dependent variable is the rural poverty-headcount ratio. For the purpose of research study, the five following blocks of Barpeta district were selected: (See Appendix Table 1.1)

(B) SOURCES OF INFORMATION

The materials of study have been collected mostly from primary sources which have been supplemented by the secondary sources. A details questionnaire was prepared to collect information on matters relevant to this study. The field work was conducted on the basis of the questionnaire. On the basis of information collected in course of field work from 500 respondents of five Blocks of Barpeta district, table have been prepared. These tables are based on the primary source. The secondary source covers books, reports, magazines, newspaper and constitutional provision which supplement the primary source. Various studies conducted elsewhere have been consulted for comparison.

(C) STEPS GUIDED THE STUDY WORK:

The following steps guided our work in each selected blocks:

(i) Assembling a diverse and representative community group: It was important in each block to speak collectively with members representing different segments of the studied block. It was particularly important to have in attendance older members from each community segment, who could speak knowledgeably about households’ situations even of 15 years ago and in the intervening period. It took some time before such a group could be assembled in any block. But we conducted this work in the months of October and November, the leanest part of the agricultural cycle in this region, and persons under the block were mostly free and available to speak with us.

(ii) Presenting clearly the objectives of the exercise: Communities in most parts of the developing world are familiar with visitors who dispense
programme benefits to particular categories of residents. And if they sense that you are there to kick-start some new programme-which is why most investigative visitors have come their way previously – then there might be some incentive for deliberate misrepresentation. It was very important to clarify at the outset that there were no benefits to be had (or any losses to be incurred) from speaking freely and frankly before the assembled gathering. And it was important to reemphasise this aspect repeatedly during these interviews.

(iii) *Defining collectively what it means for a household to be regarded as poor:* Poverty means many different things to different people, and indeed, people within any given community may have different words for different levels and categories of poverty. So it is critically important to arrive at a common understanding of poverty and to define clearly what it means for some households in the community to be regarded as poor.

(iv) *Referring to a well known signifying event to demarcate the first period:* We selected a period of 15 years for this study because it corresponds roughly to one generation in time. Periods of time much shorter than this are not very reliable for examining trends in mobility (Walker and Ryan 1990: 99). However, merely saying “15 years ago” is not clear enough in community interviews, and it is possible that people might refer back to different times in the earlier period. While speaking of households’ situations we needed to refer to some commonly known landmark event. The national emergency of 1975-77 is one such event that all older villagers under the studied block remember vividly and about which there is no confusion in people’s minds.

(v) *Treating households of today as the unit of analysis, classifying households’ poverty status today and in the earlier period:* We listed all currently existing households under the studied blocks, and referring continuously to the shared understanding of poverty developed in step (iii) above, we asked the assembled persons to describe each household’s status both today and for the earlier period. Ranking each household’s progress in terms of the successive stages of progress helped verify who was indeed poor in each period. Crossing over the first four stages of progress served to verify that a household was not poor.

(vi) *Categorising household:* Some households were poor in the earlier period but they are not poor now. Others were not poor then but they
have become poor since. Some households that exist today did not exist 15 years ago. In their case, we inquired about the parents’ households.

For categories of households were defined as follows:
Category A – Poor then and poor now: (Remained poor);
Category B – Poor then and not poor now: (Escaped poverty);
Category C – Not poor then and poor now: (Became poor);
Category D – Not poor then and not poor now: (Remained not poor).

Men’s and women’s groups worked separately and they produced two separate sets of household classifications. These separate classifications, which did not in most cases differ too much in the first instance, were harmonized after discussion and debate to produce the final classification. A residual category, E, was also formed, which included all households that proved hard to classify, but hardly any households, less than 1 per cent overall, were required to be consigned to this residual category.

(vii) Ascertaining reasons for change (or stability) for a random sample of households: We then selected a random sample of households from each of the four categories, and queried the assembled persons about the circumstances within which these households had moved or stayed the same. “What were the major factors behind household A’s shift from non-poor to poor?” Probing further, we asked the assembled persons to identify the four most important causes in each case. These exercises were conducted in each block with men’s groups and women’s groups meeting separately. Differences were harmonized through follow-up discussions, and these results were further cross-checked with the help of household interviews.

(viii) Following up with households: Additional information for all households within the random sample was obtained by interviewing individual members of that household. The goal here was to delve into the reasons behind this household’s movement or stability and to cross-check the information provided by the persons gathered. More than one member from each such household was interviewed. Women and men both the members of households were interviewed in turn.
(ix) The main purpose of the survey is to enquire about employment opportunities created, income generated, change of economic plight of beneficiaries, human resource formation, enhancement of self-reliance etc under the programmes. The district is languishing in reliable secondary data pertaining to beneficiaries’ families except some information from DRDA, Blocks and concerned Banks. That is why, a widely used technique popularly known as field survey-cum-interview method was used for the purpose. An attempt was made to collect all relevant information through direct and personal interview on the basis of properly designed questionnaire. The officials of programme functionaries like DRDA, BDO, Lead Bank etc were interviewed regarding implementation/evaluation of the programmes.

(D) ISSUES COVERED IN THE STUDY:

The specific elements which are covered under the study are indicated below:

1. Planning and Scheme design-
   a) Planning process
   b) Peoples' participation
   c) Scheme design:
      a) Technical analysis
      b) Social analysis
      c) Financial analysis
      d) Organizational analysis

2. Delivery system-
   a) Planning unit
   b) Infrastructural support
      i) For office
      ii) For storage
      iii) For marketing
   c) Manpower support
      i) For planning
      ii) For implementation and supervision
      iii) For training

3. Implementation of Programmes-
   - Conduction of Gram Sabha, selection of beneficiaries
   - Formation of beneficiaries committee
- Manpower placement
- Training of beneficiaries
- Inputs management
- Supervision
- Auditing
- Feedback

4. **Some Management issues**-
   i) Organizational structure
   ii) Time management
   iii) Placement of officers and other staffs
   iv) Field problems in case of implementation of programmes
   v) PRIs functioning

5. **Behavioural issues**-
   i) Motivation
   ii) Behavioural problems in the implementation
   iii) Team work etc.

**VI**

**OBJECTIVES & HYPOTHESIS**

Though many programmes were launched by the Central Government to tackle the problem of rural poverty, in this study, only two of them - IRDP and SGSY will be examined. So the main objectives of the study will be:

1. To review the implementation of IRDP and SGSY in this district.
2. To assess the benefit to the beneficiaries under these programmes.
3. To identify the factor responsible for success/failure of the programmes with view to draw lessons for future.
4. To make an economic appraisal IRDP and SGSY in terms of
   a. Their impact on poverty alleviation.
   b. Income generating per unit of investment in different components of the programmes.

The prime purpose of this study is to evaluate the performance and impact of IRDP and SGSY in Barpeta district keeping in view the above mentioned points.
The hypothesis which the study will undertake are
1. IRDP and SGSY have the impact on Poverty Alleviation in Barpeta District.
2. They have generated income per unit of investment in different components of the programmes.

VII
ANALYSIS OF DATA

The collected data were analysed in a number of closely related operations accordingly to the nature of response. Different numbers of response were grouped into a number of categories and queries were made of number falling into the groups. These results were presented in the form of statistical tables. All tabulations were done entirely by manual methods. In the testing of hypothesis, I have resorted to several statistical techniques.

The following tools were used for analysis of the data collected.
(i) Paired ‘t’ test.
(ii) Correlation analysis.
(iii) Regression analysis.
(iv) Multiple regression analysis, and
(v) Ratio analysis.

(i) Paired ‘t’ Test

Paired ‘t’ test was employed to compare the variation in generation of income, asset position and employment generation of the members for the various micro enterprises of four sectors namely, agriculture and allied manufacturing, training and servicing, financed by different sources between the base year and post credit year.

(ii) Correlation analysis

Correlation analysis technique was used to analysis the relationship between the variables such as investment and income, investment and asset position, investment and employment generation, age of SHG and average saving per member, age of the group and the average loan per member.

(iii) Regression Analysis:
Regression analysis model was used to study the impact of investment on asset position of the micro entreprenuers.

(iv) **Multiple Regression Analysis:**

Multiple regression analysis was used to study the various sources of credit and the other departments influencing the incremental income of the SHG members and also to study the impact of SHGs on the SHG net income per member.

- To study the sources of credit on the average household income of the members was taken as an dependent variable and the explanatory variables were SHGs, scheduled banks, corpus fund, friends and relatives and money lenders.
- To find out the major detriments influencing the incremental income of the members was considered as a dependent variable. The explanatory variables were average loan, average own funds, average incremental assets, average increment mandays, average interest paid, average incremental household expenses, average educational level of entreprenuers.
- To study the impact of SHGs an on the SHG net income per member, dependent variable was SHG net income per member and the explanatory variables were average distance between members in SHGs, average educational level of members in the SHGs, average loan provided, age of SHGs and the percentage share of SHGs expenditure in the total income of SHGs.

(v) **Ratio analysis:**

The following ratios were used for assessing the performance of the SHGs and incremental income realised by the micro enterprise.

(a) Recovery index.
(b) Thrift credit ratio/velocity of internal lending
(c) Rate of outstanding on total loans
(d) Investment income ratio
(e) Portfolio in arrears ratio
(a) **Recovery Index:**
The recovery index arrived at is as follows.

\[
\text{Annual recovered} \times 100 \over \text{Demand for recovery}
\]

(b) **Velocity of internal lending:**
This ratio is calculated as follows:

\[
\text{Total loans disbursed} \over \text{Total savings mobilised}
\]

(c) **Outstanding loans in Percentage:**
Outstanding loans in percentage was arrived at is as follows:

\[
\text{Total lending-Demand for recovery} \times 100 \over \text{Total lending}
\]

(d) **Investment income ratio**
Investment income ratio is calculated as follows:

\[
\text{Mean income} \times 100 \over \text{Mean investment}
\]

Investment includes (loans and own funds)

(v) **Portfolio Arrears Ratio**
This is calculated by using the formula

\[
\text{Payment over due} \times 100 \over \text{Payment outstanding}
\]

Besides the above mentioned tools of analysis, percentage, means standard deviation, co-efficient of variation, chi-square test, graphs and diagrams were used wherever necessary. In-depth, analysis was done to compare the findings in the urban and rural areas and also the categories of micro enterprises in different sectors.
ECONOMETRIC MODEL

Regression model for sources of loan influencing the Household Income

\[ Y_i = \beta_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 \]

\[ Y_i = \text{Average household Income} \]
\[ X_1 = \text{SHGs} \]
\[ X_2 = \text{Scheduled Banks} \]
\[ X_3 = \text{corpus fund} \]
\[ X_4 = \text{Friends & Relatives} \]
\[ X_5 = \text{Moneylenders} \]

Oneway Analysis of variance for Average Return on Investment

SSC = Sum of Squares between Samples
SSE = Sum of Squares within samples.

\[ F = \frac{(SSC/v_1)}{(SSE/v_2)} \]

Correlation Analysis of Investment Income Relationship

(a) Area wise - Rural & Urban
(b) Sectorwise - Agriculture & Allied Manufacturing, Trading, Servicing.
(c) Micro enterprise wise - Dairy farming, Poultry, Sheep rearing, Pig rearing, Cottage industries, Detergent powder making.

Correlation Analysis of Investment and Employment Generation (Mandays)

(a) Area wise - Urban And Rural
(b) Sectorwise - Agriculture and Allied, Manufacturing, Trading, Servicing.

\[ r = \frac{e^x y}{\sqrt{e^x \cdot e^y}} \]
**Ratio Analysis:**

(i) Recovery Index = \( \frac{\text{Amount recovered}}{\text{Demand for recovery}} \) x 100

(ii) Velocity of Internal lending = \( \frac{\text{Total loans disbursed}}{\text{Total savings mobilised}} \)

(iii) Outstanding loans in percentage = \( \frac{\text{Total lending - Demand for recovery}}{\text{Total lending}} \) x 100

(iv) Investment - Income ratio = \( \frac{\text{Mean Income}}{\text{Mean Investment}} \) x 100

**Time-Series Analysis:**

The research scholar has used some statistical techniques viz, fitting of Trend Equations for Time Series Data, Correlation Analysis and construction of Multiple Linear Regression Models (period 1997-98 to 2006-07), Growth Trend Analysis of the Loan, Investment, Income and Employment. For a deeper analysis of the growth in the data set we require some statistical tools. The research scholar has fitted the following trend equation and its suitability.

**Trend Equations:**

\[
\begin{align*}
I & = a + bT \\
\mathcal{E} I & = \frac{\mathcal{E} I}{\mathcal{E} X} \\
\text{where } a & = \frac{\mathcal{E} X}{N} \\
b & = \frac{\mathcal{E} X^2}{N} \\
\text{where } I & = \text{Investment} \\
\mathcal{E} L & = \frac{\mathcal{E} L}{\mathcal{E} X} \\
\text{where } L & = \text{Loan} \\
\mathcal{E} Y & = \frac{\mathcal{E} Y}{\mathcal{E} X} \\
\text{where } Y & = \text{Income of household}
\end{align*}
\]
E = a+bT \quad \text{where } a = \frac{\varepsilon E}{N}; \quad b = \frac{\varepsilon XE}{\varepsilon X^2}

\text{where } E = \text{Employment.}

\textbf{Multiple Regression Models :}

In this study the models constructed are:

Model I : Average Household Income

\[ Y_i = \beta_0 + \beta_1 + X_1 + \beta_2 + X_2 + \beta_3 + X_3 \]

\( Y_i = \text{Average Household Income} \)
\( X_1 = \text{Loan} \)
\( X_2 = \text{Investment} \)
\( X_3 = \text{Employment} \)

Model II :

\[ \text{Employment} = \beta_0 + \beta_1 + X_1 + \beta_2 + X_2 + \beta_3 + X_3 \]

\( Y_i = \text{Employment} \)
\( X_1 = \text{Loan} \)
\( X_2 = \text{Investment} \)
\( X_3 = \text{Subsidy} \)

Model III :

\[ \text{SHGs’ Average Income} = \beta_0 + \beta_1 + X_1 + \beta_2 + X_2 + \beta_3 + X_3 \]

\( Y_i = \text{SHGs’ Average Income} \)
\( X_1 = \text{Capital} \)
\( X_2 = \text{Subsidy} \)
\( X_3 = \text{Investment} \)
# APPENDIX TABLE

## Table 1.1

Selected RD blocks for study

<table>
<thead>
<tr>
<th>State</th>
<th>District</th>
<th>Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSAM</td>
<td>BARPETA</td>
<td>1. Barpeta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Bajali</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Bhabanipur</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Mandia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Gobardhana</td>
</tr>
</tbody>
</table>

## Table 1.2

Trend Equation Coefficient

<table>
<thead>
<tr>
<th>Trend Equation</th>
<th>Coefficient</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$I = 108050.791 + 26875.431T$</td>
<td>0.994</td>
<td>0.000</td>
</tr>
<tr>
<td>$L = 713172.144 + 646960.885T$</td>
<td>0.987</td>
<td>0.000</td>
</tr>
<tr>
<td>$Y = -1520.712 + 2.56T$</td>
<td>0.923</td>
<td>0.003</td>
</tr>
<tr>
<td>$E = 103.25 + 3.86T$</td>
<td>0.861</td>
<td>0.000</td>
</tr>
</tbody>
</table>

## Table 1.3

Correlation Coefficient

<table>
<thead>
<tr>
<th>Correlation between</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan and Investment</td>
<td>0.986</td>
</tr>
<tr>
<td>Subsidy and Loan</td>
<td>0.836</td>
</tr>
<tr>
<td>Investment and Income</td>
<td>0.923</td>
</tr>
<tr>
<td>Employment and Income</td>
<td>0.960</td>
</tr>
</tbody>
</table>

## Table 1.4

Multiple Regression Models

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Form of the Model</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>$Y = -2277860.722 + 12.411 X_1 + 0.3 X_2 + 1.59$</td>
<td>0.996</td>
</tr>
<tr>
<td>II</td>
<td>$Y = 151102.232 + 5.182 X_1 + 25.32 X_2 + 122.55 X_3$</td>
<td>0.994</td>
</tr>
<tr>
<td>III</td>
<td>$Y = 471198.955 + 5.149 X_1 + 0.020 X_2 + 19.681 X_3$</td>
<td>0.998</td>
</tr>
</tbody>
</table>
IX
DIMENSIONS OF POVERTY IN ASSAM STATE AND ITS BARPETA DISTRICT

As per NSSO data 2004-05 (61st round), it may be noted that in Assam the gap between the rural and urban food deprivation has increased before introducing economic reforms and decreased after introducing it (economic reforms). It means Assam seems to have benefited more from economic reforms.

Table 1.5
Trends in Food Deprivation before and after Economic Reforms in Assam

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rural</strong></td>
<td>Decrease</td>
<td>Decrease</td>
</tr>
<tr>
<td><strong>Urban</strong></td>
<td>Decrease</td>
<td>Decrease</td>
</tr>
<tr>
<td><strong>Rural-urban Gap</strong></td>
<td>Increase</td>
<td>Decrease</td>
</tr>
</tbody>
</table>

**Source:** NSSO Data 2004-05 (61st round)

In rural Assam, average monthly per-capita consumption expenditure (MPCE) was Rs 543 which is nearly National average monthly per-capita expenditure but the RSE of average level was found to be low (less than 5%). Assam had 22.1% of its population below the poverty line. Inequality was found to be low in Assam (0.1964) and average level of living was also low.

Table 1.6
Estimates of Average MPCE, Head Count Ratio and Lorenz Ratio

<table>
<thead>
<tr>
<th></th>
<th>% of all India population</th>
<th>Average MPCE (Rs)</th>
<th>RSE of average MPCE</th>
<th>% of poor Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL</td>
<td>3.1</td>
<td>543</td>
<td>1.36</td>
<td>22.1</td>
</tr>
<tr>
<td>URBAN</td>
<td>0.9</td>
<td>1,058</td>
<td>6.2</td>
<td>3.6</td>
</tr>
</tbody>
</table>

**Source:** NSSO Data (61st round) 2004-05

In terms of round poverty, the scenario was quite intriguing. In Assam, in a number of districts much as Kokrajhar, Dhubri, Goalpara, Bongaigaon, Barpeta, Cachar and Karimganj, the HCR as high as 30% or more.
Table 1.7
District-wise Population Proportion, MPCE, HCR and LR-S for Rural Sector in Assam

<table>
<thead>
<tr>
<th>Name of District</th>
<th>Proportional Population</th>
<th>No. of Sample Household</th>
<th>MPCE (Rs)</th>
<th>RSE</th>
<th>% of poor</th>
<th>Lorenz Ratio (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kokrajhar</td>
<td>3.0</td>
<td>110</td>
<td>479</td>
<td>6.30</td>
<td>35.7</td>
<td>0.220</td>
</tr>
<tr>
<td>Dhubri</td>
<td>5.9</td>
<td>190</td>
<td>455</td>
<td>5.47</td>
<td>42.4</td>
<td>0.190</td>
</tr>
<tr>
<td>Goalpara</td>
<td>2.7</td>
<td>120</td>
<td>495</td>
<td>7.87</td>
<td>33.9</td>
<td>0.194</td>
</tr>
<tr>
<td>Bongaigaon</td>
<td>3.3</td>
<td>120</td>
<td>448</td>
<td>5.77</td>
<td>33.0</td>
<td>0.177</td>
</tr>
<tr>
<td>Barpeta</td>
<td>6.8</td>
<td>190</td>
<td>492</td>
<td>5.84</td>
<td>39.9</td>
<td>0.211</td>
</tr>
<tr>
<td>Kamrup</td>
<td>6.8</td>
<td>180</td>
<td>531</td>
<td>5.40</td>
<td>22.3</td>
<td>0.206</td>
</tr>
<tr>
<td>Nalbari</td>
<td>4.8</td>
<td>160</td>
<td>542</td>
<td>5.00</td>
<td>15.0</td>
<td>0.155</td>
</tr>
<tr>
<td>Darrang</td>
<td>6.7</td>
<td>200</td>
<td>620</td>
<td>2.69</td>
<td>9.1</td>
<td>0.097</td>
</tr>
<tr>
<td>Morigaon</td>
<td>3.5</td>
<td>120</td>
<td>529</td>
<td>10.52</td>
<td>21.5</td>
<td>0.202</td>
</tr>
<tr>
<td>Nowgong</td>
<td>8.1</td>
<td>240</td>
<td>557</td>
<td>5.38</td>
<td>25.3</td>
<td>0.208</td>
</tr>
<tr>
<td>Sonitpur</td>
<td>7.8</td>
<td>200</td>
<td>601</td>
<td>5.26</td>
<td>3.6</td>
<td>0.148</td>
</tr>
<tr>
<td>Lakhimpur</td>
<td>3.9</td>
<td>120</td>
<td>636</td>
<td>3.04</td>
<td>1.4</td>
<td>0.118</td>
</tr>
<tr>
<td>Dhemaji</td>
<td>2.3</td>
<td>80</td>
<td>640</td>
<td>8.09</td>
<td>0.0</td>
<td>0.140</td>
</tr>
<tr>
<td>Tinsukia</td>
<td>4.2</td>
<td>160</td>
<td>628</td>
<td>7.29</td>
<td>14.4</td>
<td>0.204</td>
</tr>
<tr>
<td>Dibrugarh</td>
<td>4.9</td>
<td>160</td>
<td>576</td>
<td>8.51</td>
<td>19.2</td>
<td>0.192</td>
</tr>
<tr>
<td>Sibsagar</td>
<td>3.8</td>
<td>160</td>
<td>650</td>
<td>6.85</td>
<td>20.3</td>
<td>0.257</td>
</tr>
<tr>
<td>Jorhat</td>
<td>03.1</td>
<td>120</td>
<td>593</td>
<td>7.77</td>
<td>27.5</td>
<td>0.242</td>
</tr>
<tr>
<td>Golaghat</td>
<td>4.0</td>
<td>120</td>
<td>539</td>
<td>6.04</td>
<td>25.5</td>
<td>0.216</td>
</tr>
<tr>
<td>Karbiaglong</td>
<td>3.2</td>
<td>120</td>
<td>448</td>
<td>5.16</td>
<td>26.5</td>
<td>0.123</td>
</tr>
<tr>
<td>Ncachar Hills</td>
<td>0.6</td>
<td>40</td>
<td>484</td>
<td>1.97</td>
<td>6.1</td>
<td>0.094</td>
</tr>
<tr>
<td>Cachar</td>
<td>5.0</td>
<td>200</td>
<td>481</td>
<td>6.48</td>
<td>33.5</td>
<td>0.188</td>
</tr>
<tr>
<td>Karimganj</td>
<td>4.0</td>
<td>160</td>
<td>444</td>
<td>5.47</td>
<td>40.9</td>
<td>0.158</td>
</tr>
<tr>
<td>Hailakandi</td>
<td>1.7</td>
<td>80</td>
<td>512</td>
<td>5.16</td>
<td>7.0</td>
<td>0.118</td>
</tr>
<tr>
<td>Assam</td>
<td>100.0</td>
<td>3.350</td>
<td>543</td>
<td>1.36</td>
<td>22.1</td>
<td>0.196</td>
</tr>
</tbody>
</table>

3Source: NSSO Data (61st round) 2004-05.

On the basis of above formulas the Research Scholar has assessed the poverty Ratio in five blocks of Barpeta District (surveyed) and compared with the poverty ratio of the five surveyed blocks as per the government record.
After using the above formulas the research scholar has found the poverty ratio and the number of poor, incidence of poverty among scheduled Caste, scheduled Tribes and some alternative indices of poverty.

### Table - 1.8

**Poverty Ratio and the Number of poor in Barpeta District.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Poverty Ratio (in%)</th>
<th>No of Poor is Lakhs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>1973-74</td>
<td>68.4</td>
<td>56.0</td>
</tr>
<tr>
<td>1977-78</td>
<td>63.8</td>
<td>52.3</td>
</tr>
<tr>
<td>1983</td>
<td>59.8</td>
<td>58.6</td>
</tr>
<tr>
<td>1987-88</td>
<td>55.6</td>
<td>51.2</td>
</tr>
<tr>
<td>1993-94</td>
<td>53.2</td>
<td>50.3</td>
</tr>
<tr>
<td>1999-00</td>
<td>52.0</td>
<td>49.1</td>
</tr>
</tbody>
</table>

**Source:** As per Record of DRDA, Barpeta District.

### Table - 1.9

**Poverty in the Surveyed Blocks of Barpeta District as Assessed on the basis of Data Collected in 2007.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Poverty Ratio (in%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td>1973-74</td>
<td>68.0</td>
</tr>
<tr>
<td>1977-78</td>
<td>63.8</td>
</tr>
<tr>
<td>1983</td>
<td>59.8</td>
</tr>
<tr>
<td>1987-88</td>
<td>55.6</td>
</tr>
<tr>
<td>1993-94</td>
<td>53.2</td>
</tr>
<tr>
<td>1999-00</td>
<td>52.0</td>
</tr>
</tbody>
</table>

**Source:** On the basis of Data collected.
Table - 1.10

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Blocks</th>
<th>Rural Poverty Ratio (%)</th>
<th>Urban Poverty Ratio (%)</th>
<th>Total Poverty Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Barpeta</td>
<td>48.2</td>
<td>45.6</td>
<td>59.23</td>
</tr>
<tr>
<td>2</td>
<td>Bajali</td>
<td>51.2</td>
<td>50.6</td>
<td>43.76</td>
</tr>
<tr>
<td>3</td>
<td>Bhabanipur</td>
<td>50.6</td>
<td>49.2</td>
<td>47.36</td>
</tr>
<tr>
<td>4</td>
<td>Mandia</td>
<td>62.3</td>
<td>54.8</td>
<td>51.39</td>
</tr>
<tr>
<td>5</td>
<td>Gobardhana</td>
<td>56.8</td>
<td>52.4</td>
<td>50.68</td>
</tr>
<tr>
<td></td>
<td>Barpeta District</td>
<td>58.60</td>
<td>49.20</td>
<td>46.20</td>
</tr>
</tbody>
</table>

Source: Assessed using the formulas on the basis of Data collected.
The table shows that the district which have higher literacy rate have lower poverty.

**Table 1.12**

Dimensions of Poverty in the State of Assam and Barpeta District.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dhubri</td>
<td>549</td>
<td>38.31</td>
<td>128</td>
<td>45.29</td>
<td>42.41</td>
</tr>
<tr>
<td>2</td>
<td>Kokrajhar</td>
<td>746</td>
<td>40.57</td>
<td>78</td>
<td>35.11</td>
<td>38.45</td>
</tr>
<tr>
<td>3</td>
<td>Bongaigaon</td>
<td>733</td>
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<td>88</td>
<td>42.38</td>
<td>40.85</td>
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<td>Nagaon</td>
<td>813</td>
<td>54.77</td>
<td>97</td>
<td>44.33</td>
<td>42.23</td>
</tr>
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<td>Golaghat</td>
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<td>61</td>
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<td>Jorhat</td>
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<td>47</td>
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<td>51</td>
<td>33.10</td>
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<td>32.15</td>
<td>31.55</td>
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<td>76</td>
<td>40.25</td>
<td>33.11</td>
</tr>
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<td>39.20</td>
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<td>33.85</td>
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<td>Hailakandi</td>
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<td>31.48</td>
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<td>Cachar</td>
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<td>97</td>
<td>34.22</td>
<td>39.05</td>
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<td><strong>800</strong></td>
<td><strong>52.89</strong></td>
<td><strong>78</strong></td>
<td><strong>36.09</strong></td>
<td><strong>28.05</strong></td>
</tr>
</tbody>
</table>

**Source**: Economic Survey of Assam, 2007
Table 1.13
Correlation of Poverty Ratio with Birth Rate, IMR and Literacy Rate.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Correlation of PR with</th>
<th>Value of correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IMR</td>
<td>0.16</td>
</tr>
<tr>
<td>2</td>
<td>Birth Rate</td>
<td>0.45</td>
</tr>
<tr>
<td>3</td>
<td>Literacy Rate</td>
<td>-0.21</td>
</tr>
</tbody>
</table>

**Source**: Data Collected

The table shows that literacy and poverty are negative correlated and infant mortality rate and poverty are positively correlated, that means the districts having higher poverty ratio have higher infant mortality rate.

**Trends in Household Poverty**:

Trends observed in the five selected blocks under study differ quite considerable from each other. Table 1.13 provides these figures:

Table 1.14
Trends in poverty in five development block

<table>
<thead>
<tr>
<th>S.N. &amp; Block</th>
<th>No. of Households</th>
<th>Percentage of Households that over the past 15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Remaining poor</td>
</tr>
<tr>
<td>1. Barpeta</td>
<td>100</td>
<td>32.0</td>
</tr>
<tr>
<td>2. Bajali</td>
<td>100</td>
<td>2.3</td>
</tr>
<tr>
<td>3. Bhabanipur</td>
<td>100</td>
<td>2.9</td>
</tr>
<tr>
<td>4. Mandia</td>
<td>100</td>
<td>6.1</td>
</tr>
<tr>
<td>5. Gobardhana</td>
<td>100</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Source**: Calculated on the basis of Field Survey Data

In each block some households have escaped from poverty over the past 15 years and other households have fallen into poverty at the same time. These numbers vary quite significantly, however, from one block to the next. The percentage of households escaping poverty over the past 15 years varies from a low of 1.8 per cent to a high of 8.1 per cent and percentage of households falling
into poverty over this period also varies quite widely, from 3.6 per cent to 11.8 per cent.

The seemingly precise nature of these data is likely to mislead. More valuably, one should interpret them to indicate trends and directions of change. One can examine these trends for reasons related to change in either direction. And one can formulate policies that address these reasons more effectively. Large numbers of households have fallen into poverty overall, but it is found that these numbers vary considerably from block to block. Can these differences be explained with respect to any particular block characteristics? Does it matter, in particular, how any particular block is located in relation to the national and regional economy? Table 1.14 helps examine some of these factors:

Using distance from the market as a proxy variable for market integration, it is found that neither escape nor decline nor even the net change in poverty is significantly associated with this variable. Mandia block and Gobardhana blocks are both situated at the same distance, about 14 km away, for the nearest market town, but while in the first block households in poverty declined by 4.5 per cent, in the second, households in poverty rose by the same percentage amount. Similarly, Bajali and Bhabanipur blocks are both located about 10 km away from the nearest market town, but percentage of households in poverty fell in Bhabanipur while it rose in Bajali over the past 15 years. Other surrogate variables for market integration were also similarly insignificant for explaining these differences in relative performance (table 1.14).

<table>
<thead>
<tr>
<th>S.N &amp; Block</th>
<th>No. of Households</th>
<th>Became Poor (Per cent)</th>
<th>Escaped Poverty Reduction (Per cent)</th>
<th>Net Poverty Reduction (Per cent)</th>
<th>Distance to Market (Km)</th>
<th>Distance to High School (Km)</th>
<th>Scheduled Caste (Per cent)</th>
<th>Scheduled Tribe (Per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Barpeta</td>
<td>100</td>
<td>8.1</td>
<td>3.6</td>
<td>4.5</td>
<td>10</td>
<td>2</td>
<td>4</td>
<td>45</td>
</tr>
<tr>
<td>2. Bajali</td>
<td>100</td>
<td>3.1</td>
<td>7.8</td>
<td>-4.7</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>23</td>
</tr>
<tr>
<td>3. Bhabanipur</td>
<td>100</td>
<td>1.8</td>
<td>11.8</td>
<td>-10.0</td>
<td>14</td>
<td>5</td>
<td>40</td>
<td>19</td>
</tr>
<tr>
<td>4. Mandia</td>
<td>100</td>
<td>2.7</td>
<td>4.2</td>
<td>-1.5</td>
<td>40</td>
<td>10</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>5. Gobardhana</td>
<td>100</td>
<td>3.7</td>
<td>7.4</td>
<td>-3.7</td>
<td>14</td>
<td>4</td>
<td>2</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: Calculated on the basis of Field Survey Data
Village infrastructure has been found important, however, in other studies (Gaiha 1989), and social capital has also been found important for the overall development performance of a block (Krishna 2002b, Krishna and Uphoff 2002). But in terms of poverty movements in either direction, block-level characteristics examined here were not found particularly valuable for explanation. Future investigations will help identify other block characteristics that matter for poverty reduction in any given context.

Caste composition in not very useful for explaining inter-block differences in poverty, it was revealed in this study. It is true that poverty is more enduring among households belonging to scheduled castes (SCs) and scheduled tribes (STs). And indeed, overall, more SCs and STs are poor compared with other caste groups. But poverty reduction over time has relatively little to do with the weight of SCs and STs in the block population. Bajali block, with almost 50 per cent SCs and STs within its population, had a net positive improvement in terms of poverty reduction. But Mandia, with a much smaller proportion of SCs and STs, had a net negative result at the same time. Table 1.15 presents the overall performance of different caste groups in these the studied blocks.

<table>
<thead>
<tr>
<th>Caste Groups</th>
<th>Households that Remained poor</th>
<th>Households that Escaped poverty</th>
<th>Households that Became poor</th>
<th>Households that Remained Non-poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>22</td>
<td>9</td>
<td>7</td>
<td>52</td>
</tr>
<tr>
<td>ST</td>
<td>29</td>
<td>7</td>
<td>5</td>
<td>59</td>
</tr>
<tr>
<td>OBC</td>
<td>17</td>
<td>12</td>
<td>10</td>
<td>161</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td>81</td>
</tr>
</tbody>
</table>

Source: Calculated on the basis of Field Survey Data

It is clear that proportionately more SC and ST households are poor. Currently poor households include all those that have continued to remain poor over the past 15 years (category A) and also all those who have become poor over the past 15 years (Category C). 34 per cent of all ST household and 29 per cent of all SC households belong within these categories, but comparatively fewer households of the other three caste categories – 27 per cent of OBC and 12 per cent of other castes – are poor at the present time.
However, proportionately at least as many SC and ST households have emerged out of poverty over the past 15 years, and, in fact, a slightly higher proportion of SCs have escaped from poverty, compared with all other caste groups. On the opposite side, however, a somewhat larger proportion of SCs have also fallen into poverty at the same time.

If only these numbers could have been controlled – if only the rise out of poverty of some households had been unaccompanied by the simultaneous decline of large numbers of households into poverty- the overall achievement could have been much more encouraging even with the same overall rate of growth in the economy. As it is, however, the rise of some households has gone together with the decline of others and the net improvement has been quite low overall.

X
LIMITATIONS

- The data for the present study was collected through personal interview method. Since the beneficiary groups did not maintain proper accounts and most of them were uneducated, the possibility of data bias exists and hence the data collected would only be an approximation of actual facts.
- Respondents were reluctant giving right information in filling up questionnair prepared for the purpose.
- Consistent secondary data were not available in the Govt.-offices.
- Whole aspects of poverty scenario might not be covered due to lack of time available.

XI
CHAPTERISATION

Chapter : 1 Introductory chapter and deals with the urgency to study the IRDP and SGSY in Barpeta district.
Chapter : 2 Review of the IRDP and SGSY towards rural development.
Chapter : 3 Study the socio-economic outline of Barpeta district
Chapter : 4 Explain the management of IRDP and SGSY in Barpeta district.
Chapter : 5 It gives progress and economic appraisal of IRDP and SGSY in terms of poverty alleviation and income generation.
Chapter : 6 Shows bottlenecks and suggest lessons for future and also provides conclusions arrived at the previous chapter.