In the vast literature of economics, poverty is a well researched and well debated topic. From measurement issues to drawing the poverty lines, many works had been done to resolve the issues according to economic situation and the scholar concern. Further, literature on nutrition and poverty has been taking the center stage, as the inter linkage between the two has been found by a number of researchers and government agencies to be vital in eradicating poverty. Moreover, many literatures explain the working of government agencies, programmes and NGO’s in eradicating poverty.

In this section, the work done by the scholars and agencies (Government and NGO’s) regarding poverty and its issues are being discussed.

2.1: POVERTY LINE AND THE EXTENT OF POVERTY:

To know who is poor and who is not, one has to draw the line that divides the two. Thus, fixing of poverty line becomes the very bases of defining poverty. In the literature of economics these topics have been vastly debated and examined by many scholars and government agencies.

Deaton (2000) analysed the World Bank Report 2000 estimates of poverty line basing on 1993 purchasing power parities at $ 1.08 a day per person, but is still conveniently referred to as the $1 a day poverty line. The World Bank’s worldwide count of the poor starts from a common international poverty line and counts the number of people in each country whose consumption lies below it. The international poverty line, at $1-or $2-a-day is converted into domestic currencies using purchasing power parity exchange rates. But he is of the view that, although the $1-a-day common line has much to recommend it, its dependence on purchasing power parity exchange rates has a number of drawbacks. Thus he suggested that, a better procedure for the future would be to hold fixed (in real terms) the current domestic poverty lines, and not to revise them along with changes in PPP exchange rates induced by updating of base years.

Oberg (2003) explained how poor are being defined. He shows that, the Census Bureau uses a set of money income thresholds that vary by family size and composition to establish the official measure of poverty line in the U.S. Thus, the poverty line was fixed at an annual income of $9,214 in 2001 for a single person, $12,267 for family of two, $14,269 for family of three, $18,022 for family of four, $20,812 for family of five, $23,221 for family of six, $25,462 for family of seven, $28,893 for family of eight and $34,238 for family of nine. With the poverty line, he analysed the trends of the overall poverty rate in the U.S. from 1959 to 2001. His analysis shows that, in 1960,
35% of the population—over 5 million people—were poor, with the elderly comprising the largest segment. Since then, there has been a significant reduction in the number of elderly persons living in poverty to a rate of 10.1% in 2001. After 1975, the rate continued a steady decline for those over 65 years, while it increased for children. The poverty rate for children rose to an all-time high of 22% in 1982 and again in 1993 equaling the rates observed in the 1960s. Despite a reduction in the childhood poverty rate since 1993, in part due to the strong economy of the 1990s, children remain disproportionately represented among poor Americans, with a rate of 16.3% in 2001.

The National Economic and Social Development Board (NESD) of Thailand in 2002 have estimated poverty line for the country using calorie requirement and calories obtained per Baht. Using the official method for the year 1988-2002, the board have estimated that the poverty line in Thailand were equivalent of 473 baht per person per month in 1988, and 922 baht per person per month in 2002. It also showed that poverty incidence have decline from 32.6 percent of the total population in 1988 to 9.8 percent in 2002.

Government of Sri Lanka, on March 2004, conducted workshop on the methodological issues surrounding the estimation of poverty. Based on the recommendation that emerged from the workshop, the department of Census and Statistics chooses the absolute poverty line approach in fixing the poverty line. The calorie requirement per person per day thus estimated to be 2518 Kcal. Using the age division method of NSSO India, the paper shows the various calorie requirement by different age groups. The national official poverty line for 2002 was fixed at Rs. 1423 per person per year.

Poverty line in the context of India was first mooted by the Indian Labour Conference in 1957. A distinguished working group of eminent economist and social thinker set up by the Planning Commission, Government of India, in 1962, to deliberate on the question of what should be regarded as the nationally desirable minimum level of consumer expenditure. The working group after taking into account the recommendation of the Medical Research (ICMR, 1958) came to the view that in order to provide the minimum nutritional diet in terms of calorie intake, the national minimum per capita consumption expenditure should be Rs. 20 per month at 1960-61 prices.

A Task Force (1979) constituted by the Perspective Planning Division of Planning Commission adopted derivation of poverty line in the normative minimum calorie intake. This group accepted the calorie intake norms recommended by the Nutrition Expert Group (1968), according to fourteen age-sex-activity categories. This provided the age-sex-activity-specific composition of the rural and urban populations. The specific calorie norms were then weighted by
the corresponding compositions of the rural and urban populations separately, to derive the rural and urban average calorie norms. The daily calorie requirement per person was worked out, on average, to 2435 and 2095 calories in rural and urban India, respectively (GOI, 1979). Thus if the people living in rural and urban areas can afford to consume on average at least 2435 and 2095 calories of food per day, respectively, they are said to be above the poverty line. Further, the Planning Commission has also estimated the total expenditure of the food and non-food items for urban and rural areas: these expenditure levels became their respective poverty lines. At 1973 prices, the poverty lines for rural and urban areas stood at Rs 49 and Rs 57 per person per month respectively (GOI 1979). Currently, these figures stand at approximately Rs 368 and Rs 559 per person per month for rural and urban areas respectively (GOI 1993).

In a study conducted by Dandekar and Rath in 1971, an intake of 2250 calories per capita per day was assured as adequate under the Indian condition both in rural and urban areas. On the basis of National Sample Survey data on consumer expenditure, the study revealed that an average annual per capita expenditure of Rs. 170.8 or Rs. 14.2 per capita per month at 1960-61 prices would suffice to meet this calorie requirement in the rural areas. The corresponding figures in the urban areas were Rs. 271.7 and Rs. 22.6 at 1960-61 prices. Referring to the working group of 1962 set up by the Planning Commission, it was observed that the rural minimum determined by them was considerably below that amount proposed by the group, while urban minimum determined by them was little above that amount recommended by the group. In view of this, they decided to revise their rural minimum slightly upwards to Rs. 180 per annum or Rs. 15 per month. Similarly, they rounded off the urban minimum to Rs. 270 per annum or Rs. 22.5 per month, both at 1960-61 prices. On the basis of their estimates for the 16 major states in India, it was found that in 1960-61, 135 million rural people or about 38 percent of the total rural population and 42 million urban people or about 54 percent of the total urban population were living below the poverty line.

A study conducted by Ojha in 1970, defined poverty in terms of minimum needs which, in turn, were expressed in terms of physical survival. According to him, the minimum calories needed were 2250 per capita per day. In terms of food grains (pulses and cereals) minimum calories required per person per day were 1500 and 1800 for urban and rural areas respectively. Minimum calorie intake was then expressed in terms of physical quantities of food grains, as 518 grams per day per person for rural areas and 432 grams per day per person for urban areas. He defined poverty line at Rs. 15-18 (at 1960-61 prices) per capita per month for rural population and Rs. 8-11 (at 1960-61 prices) per capita per month for urban population. On this basis, he found that in 1960-61, 190 million people (44% of the total population) lived below the poverty line. For rural India it
was 184 million (51.8% of the rural population) and 6 million in urban areas (7.6% of the total urban population).

Bardhan (1973) defined poverty line to be monthly per capita consumption of Rs. 15 at 1960-61 prices for the rural people. He noted that 220.5 million rural people (constituting 53% of the rural population) were below the poverty line. A few years later, Bardhan in 1973, considered the agricultural labour price index as more appropriate because GNP deflator was taken to be a biased measure since it included both agricultural and manufactured commodities, whereas the share of manufactured commodities in the typical budget of the rural poor is much below the national average. On this basis, he estimated that 38 percent of the rural population lived below the poverty line in 1960-61. Incidence of poverty, he says, increased from 38 percent in 1960-61 to 54 percent in 1968-69. In absolute numbers, this means a rise from about 135 million to about 230 million rural people below the minimum level during the corresponding period.

Minhas (1970) does not split the minimum requirements to draw the poverty line between rural and urban areas. He rather defined poverty line in terms of minimum amount of per capita consumption expenditure. He refers to a distinguish working group of 1962 set up by the Planning Commission which recommended a standard of private consumption of Rs. 240 (at 1960-61 prices) per capita per year as a bare minimum. On the contrary Minhas opines that the poverty line for rural areas is Rs.200 per capita per year. In comparison with the working group estimates, he has shown that by taking Rs. 200 as the minimum level of living, the number of people below the poverty line was worked out to be considerably lower. Taking Rs. 240 at 1960-61 prices as the minimum level of living, the proportion of people living below poverty line has come down from 65.0 in 1956-57 to 50.6 in 1967-68. But with Rs. 200 at 1960-61 prices of Minhas estimates, the proportion has come down from 52.4 in 1956-57 to 37.1 in 1967-68.

Ahluwalia (1977) studied the trends in the incidence of rural poverty in India for the period 1956-57 to 1973-74. He used the expenditure level of Rs. 15 in 1960-61 prices for rural areas and Rs. 20 per person for urban areas as the poverty line. His study is marked by fluctuation over time in the extent or incidence of rural poverty. The proportion of rural poverty declined initially from over 50 percent in 1956-57 to 44.5 percent in 1963-64, but rose to 46.1 percent in the 1973-74.

The World Bank in its study on India’s poverty used alternative method of estimating poverty proportions applying a deflator series developed by NSS and the Indian Statistical Institute to calculate updated poverty lines in current prices. The study showed that the poverty line is Rs. 55.2 for rural areas and Rs. 68.6 for urban areas for 1977-78 and Rs. 89 for rural areas and Rs. 112.2 for urban areas for 1983. On this basis the proportion of population below poverty line for
1970, 1983 and 1988 has been worked out. The result shows that, the proportion of population below poverty line in rural areas declined from 53% in 1970 to 44.9% by 1983 and falls further to 42% by 1988. However, in terms of absolute number, the rural poor was about 237 million in 1970 and it rose to 252 million in 1983 and was around 252.2 million in 1988.

Datt and Ravallion (1989) gave the poverty line at Rs.89 and developed the concept of poverty gap. According to their study, on an average, 43.9% of the populations were living below the poverty line in 1983. While, 40% of the urban populations and 45% of the rural populations were living below the poverty line in the same year.

The Planning Commission (1989) constituted an Expert Group in September to consider methodological and computational aspects of estimation of proportion and number of poor in India. The poverty line recommended by the Task Force on projection of minimum needs and effective consumption demand, namely a monthly per capita total expenditure of Rs. 49.09 for rural areas and Rs. 56.64 for urban areas, rounded respectively to Rs. 49 and Rs. 57 at all India level at 1973-74 prices. This estimate reveals that rural poverty ratio has decline from 56.4% in 1973-74 to 39.1% in 1987-88. As compare with this, there is relatively smaller decline in the urban poverty ratio which has come down from 49.2% in 1973-74 to 40.1% in 1987-88. The overall poverty ratio has declined from 54.9% in 1973-74 to 39.3% in 1987-88.

Dubey and Gangopadhyay (1998) calculated the incidence of poverty by taking into account the price variation faced by different households across different expenditure categories within and across the states. While adjusting the cost of living index, they used all the commodities for which the price data were collected unlike the expert group of the Planning Commission, which used only four groups of commodity. Comparing with the official poverty line set by the Task Force (1979) and their alternate poverty line, it shows that their result is lower than the official line. The official poverty line for rural and urban areas stood at Rs 49 and Rs 57 per person per month at 1973-74 prices respectively, whereas, their estimate was Rs 42.68 per person per month for rural and Rs. 49.87 per person per month for urban at 1973-74 prices. Using the alternate poverty line, they estimated the poverty trend in India from 1973-74 to 1993-94. The result shows that the rural poverty declined from 56.44% in 1973-74 to 37.27 in 1993-94 for rural areas. For urban areas the number of poor, which was 49.01% in 1973-74 declined to 35.97% in 1993-94. The overall trend during the period shows a declining trend from 54.88% to 35.97%.

2.2: MEASUREMENT OF POVERTY:

Now, the pertinent question that arises here is, then, what are the methods used in deriving this required calorie intake and poverty line. Many works and studies have been done on the
measurement of poverty, some of which are worth mentioning here. Datt (1998) in his work introduces some relatively simple computational tools for estimating poverty measures from the data that are typically available from published sources. The work addresses the central question as how do construct poverty measures from grouped data. Two broad approaches were examined in this regard; they are simple interpolation methods and methods based on parameterized Lorenz curves. Interpolation methods essentially involve fitting a distribution function to the grouped data.

To estimate the head-count index, the distribution function is typically fitted over the class interval containing the poverty line. Linear and quadratic interpolations are good examples of this method. However, there are two basic limitations in using interpolation methods as pointed out by him. First, they tend to provide relatively inaccurate predictions of the distribution function at selected points. This is particularly true of linear interpolation. Quadratic interpolation predicts more accurately, but can sometimes give rise to negative densities (when the slope of the distribution function becomes negative). Second, the calculation of distributionally sensitive poverty measures using interpolation methods can be cumbersome and inexact. An alternative methodology suggested by him for estimating poverty measures is based on parameterized Lorenz curves. This methodology is preferred both for its relative accuracy and the ease with which it helps perform a number of poverty simulations.

Aturupane, Glow and Isenman (1994) examined whether income or other broader set of objective should measure poverty or development progress. They showed that the World Bank agrees on the importance of non-income objectives in measurement, particularly those measured by basic social indicator. Their findings were that income growth, while important, is not the primary determinant of improvement in social indicator, they strongly stress on the importance of non-income objectives. Thus they recommend that changes, rather than levels, of social indicators should be emphasized and also illustrate how these changes can be measured.

Demery and Marchant (2002) explain about the challenges that are to be met while measuring poverty by analyzing the World Development Report 2000/1. The World Bank's 2000/1 World Development Report, Attacking Poverty, estimated that 1.2 billion people are currently living on less than $1 a day, and 2.8 billion people are living on less than $2 a day that constitute almost half the entire world's population. Recent UN global development conferences are united in advocating a world free of poverty which is the key development goal for the 21st century, and a group of poverty reduction targets (the International Development Goals) has gained currency. However, they are of the view that, setting such targets without appropriate strategies for poverty reduction and without the necessary monitoring systems would clearly be something of a sterile
exercise. The WDR 2001 is built on the now well-accepted view that poverty encompasses multiple dimensions, going beyond material deprivation. It broadens the notion of poverty by including vulnerability, insecurity, voicelessness and powerlessness, which is the present’s significant challenge. First, it increases the dimensions of wellbeing that need to be measured. Second, it raises questions about the relative weight of each dimension. Third, it requires that accounting of the qualitative aspects, which by their very nature can be quite difficult to measure. Many people who consider themselves as poor might not be judged so in quantitative analysis, and discrepancies often arise between objective measures of trends in poverty and perceptions on the ground. Thus, they suggested that mixing of these approaches in measuring poverty will yield a better result.

In 1998, a Panel of National Academy of Sciences comprising Thesia I. Gamer, Kathleen Short, Stephanie Shipp, Charles Nelson, and Geoffrey Paulin has made recommendation for revising poverty measure. The reason being that, with the change of social and economic condition in the United States over the years, there are more working mothers, families are smaller, there are wider varieties of goods and services, expectations about what it takes to meet one’s needs are greater than in the past, and beliefs about what are necessities have changed. Geographic variations in housing and the increasing importance of government programs also have influenced families’ appraisals of the value of their disposable incomes. With these and related changes have brought about whether the measures and data used to produce poverty in the country are still meaningful. They recommended that, the poverty thresholds should represent a budget for food, clothing, shelter (including utilities), and a small additional amount to allow for other needs (such as household supplies, personal care, and non work-related transportation). A threshold for a reference family type should be developed using actual Consumer Expenditure Survey data and updated annually to reflect changes in expenditures for food, clothing, and shelter over the previous 3 years. The reference family threshold should be adjusted to reflect the needs of different family types and to reflect geographic differences in housing costs. Family resources should be defined—consistent with the threshold concept—as the sum of money income from all sources, together with the value of near-money benefits (such as food stamps) that are available to buy goods and services in the budget, minus expenses that cannot be used to buy these goods and services. Such expenses include income and payroll taxes, child care and other work-related expenses, child support payments to another household, and out-of-pocket medical care costs, including health insurance premiums.
Tarozzi (2002) developed a procedure to estimate poverty counts in India from the 55th Round of the National Sample Survey (NSS), a large household survey run in 1999-2000. The proposed procedure requires only the existence of a set of auxiliary variables whose reports are not affected by the different survey design, and whose relation with the main variable of interest is stable across the surveys. The estimator, instead, does not require specific functional form assumptions on the relation between the main variable of interest and the auxiliary variable. In the context of NSS data, they identify a set of variables whose reports are not systematically affected by the changes implemented in the survey design, and provided evidence of the stability over time of the distribution of per capita total expenditure conditional on these variables. Thus using their estimator, they calculated the adjusted estimates for poverty in India using data from the 1999-2000 NSS Survey. The result shows that, a poverty count in India is now close to 30 percent in rural areas, and 25 percent in urban areas. The evidence suggests that a change in the survey design caused the reports on household expenditure to change to an extent that it is impossible, without adjustments, to compare poverty estimates from this survey with those obtained from previous NSS Rounds.

Bemstein and Sherman (2006) pointed out the flaws that are contained in the new measurement of poverty used by the National Academy of Sciences (USA) reports 1995. Their finding suggest that, unlike past Census reports on alternative measures of poverty, the report does not include a set of poverty measures that follow the recommendations of an expert panel of the National Academy of Sciences (NAS) and that are more complete than either the official poverty rate or the new measures. Poverty rates under the NAS measures are generally higher than the official poverty rate. Moreover, the new measures are flawed (and biased downward) because, among other reasons, they do not account for families’ expenses for child care and medical care and attribute major new categories of income (such as potential income from home equity) to families without making the adjustments to the poverty threshold necessary to create a consistent measure of well-being.

Jitsuchon (2003) in his case study on Changwat in Thailand shows the country as one that experienced a rapid reduction of the poverty incidences over the past fifty years. For example, the headcount ratio in 1960s was in the range of 60-80%. The incidence dropped continuously and dramatically to around 11% in 1996, rose slightly to around 15% two years later after the economic crisis of 1997, and is now resuming its course of declining to less than 10% in 2002. But, such a rapid reduction of poverty ratios makes it now difficult to locate the poor. One of the approaches taken recently to tackle the poor targeting problem is to identify the geographic areas
where the poor population is concentrated. Thus, he constructed poverty maps for Thailand using the methodology provided by the World Bank. The method basically tries to 'predict' the level of household income and/or expenditure of every household in some large-scale, often the census, data set, for which the true income/expenditure information is not collected. To do this, the methods rely on the relationship between the household income/expenditure and some other 'explanatory variables' that appear in both the census and the smaller, survey type data set (almost always the household surveys). These relationships, or the income/expenditure model, will then be applied to the census data to get the predicted income/expenditure. Their finding suggests that of all the 'target villages' (14,218 villages out of around 16,000 villages), around two-third was not poor with the World Bank approach. Also, among the remaining 52,077 rural villages, 12,296 were poor according to the WB approach.

Pradhan and Ravallion (1998), showed how subjective poverty lines can be derived using simple qualitative assessments of perceived consumption adequacy based on a household survey. By identifying the subjective poverty line without the usual "minimum income question" their approach offers wide applications to developing country settings. They implement it using survey data for Jamaica and Nepal. Respondents were asked whether their consumptions of food, housing and clothing were adequate for their family's needs. The implied subjective poverty lines are robust to alternative methods of dealing with other components of consumption. The results suggest a larger difference in poverty measures between urban and rural areas than found by more conventional objective approaches based on a concept of basic and absolute consumption needs. People in poor areas perceive themselves to be even poorer than objective comparisons suggest. So their results do not suggest the Subjective Poverty Line behaves more like a "relative poverty line" (which rises with average income) than an "absolute poverty line" (which does not).

Pritchett, Suryahadi and Sumarto (1999) shows that many households, while not currently "in poverty" recognize that they are vulnerable to events that could easily push them into poverty such as, bad harvest, a lost job, an unexpected expense, an illness, an economic downturn. Most operational measures define poverty as some function of the shortfall of current income or consumption expenditures from a poverty line, and hence measure only poverty at a single point in time. Thus they propose a simple expansion of these measures to quantify "vulnerability" to poverty. They define vulnerability as a probability; the risk a household will experience at least one episode of Poverty in the near future. A household is defined to be vulnerable if it has 50-50 odds or worse of falling into poverty. Using these definitions they calculate the "Vulnerability to Poverty Line" as the level of expenditures below which a household is vulnerable to poverty. This
Vulnerability to Poverty Line allows the calculation of “Headcount Vulnerable Rate,” the proportion of households vulnerable to poverty, which is the direct analogue of the “Headcount Poverty Rate.” They implement this approach using two panel data sets from Indonesia. After setting the poverty line, they showed that the headcount poverty rate is 20 percent; the proportion of households that are vulnerable to poverty is around 30 to 50 percent. So in addition to the 20 percent that are currently poor (hence are by definition vulnerable to poverty), an additional 10 to 30 percent of the population is at substantial risk of poverty.

Bhalla (2003) reflected the trends in the survey capture ratio and the possible sources and the magnitude of errors contained in both the household’s surveys and national accounts. He analysed the different methods used in estimating the poverty in India in 1999-2000, emphasizing in particular, a method, which uses information about, increase in Household survey-measures of real wages between 1983 and 1999. His finding shows that poverty in India was less than 15 percent in 1999-2000, which is a distance away from 35 to 40 percent of the World Bank estimates and less than official estimates of 26 percent.

Ahmed (2004) presented the poverty measurement technique which is being used for giving poverty profile of Bangladesh. Using the data from two national surveys: Household Income and Expenditure Survey (HIES) and Poverty Monitoring Survey (PMS) conducted by Bangladesh Bureau of Statistics (BBS), he measured poverty line through the cost of living. His findings from the surveys indicate that the incidence of poverty has declined over the years. The Foster-Greer-Thorbecke class of poverty estimates also indicates reduction of the poverty head count ratio, poverty gap, and squared poverty gap in the recent past. The distribution of income and expenditure shows that though nominal income has increased, income distribution has become skewed with high concentration of income in the highest deciles and comparatively lower income share in the lowest deciles. The quintile distribution of income also shows similar evidence. With respect to non-income indicators, infant mortality rate has declined, life expectancy has increased, and enrollment in primary and secondary levels has increased.

Many scholars have debated the methods to be used in deriving poverty lines and have suggested their version on how poverty line should be derived in India. Saith (2005) states that even though income poverty line approach yields some pertinent information on its chosen scale, it is essentially one-dimensional and over looks the multifaceted nature of human deprivation. This can easily lead to a superficial and misleading understanding of the nature and causes of human poverty. Their finding shows that income poverty line leads to misidentification of the poor, and subsequently to the adoption of targets, monitoring and evaluation criteria which are equally
The relation between nutrition and poverty cannot be ignored. It has been widely accepted that poverty means the inability to have access to basic minimum needs, the basic minimum is perceived mostly in terms of foods and the availability of it. Thus, many literature has discussed the inter linkage between these two variables.

Behrman and Deolalikar (1987) reviewed the elasticities of calorie with respect to income. In a case study made for the rural South India, their finding shows that while food expenditure elasticities and therefore indirect nutrient expenditure elasticities based on typical food aggregates are of the order of magnitude of one, direct nutrients expenditure elasticity are not significantly}

Gruswamy and Abraham (2006), state that the definition of poverty based on nutritional norms followed by the Planning Commission for decades cannot be totally acceptable. They are of the view that, a poverty line drawn based on nutritional intake is not enough because there exist a need to go beyond and include other basic needs. Thus to define poverty, they suggested that certain basic needs are to be added along with nutritional norms and costs such as, the cost of meeting basic health needs, access to water, access to shelter and sanitation, cost of energy, clothing requirement, and the right to education and access to an all-weather road and public transport.

However, the most widely used methodology in measuring and deriving poverty line in India has been the calorie intake and calorie converted income. This absolute poverty line based on minimum normative food basket and the calorie norms have been extensively explained in the previous section.

2.3: NUTRITION AND POVERTY:

The relation between nutrition and poverty cannot be ignored. It has been widely accepted that poverty means the inability to have access to basic minimum needs, the basic minimum is perceived mostly in terms of foods and the availability of it. Thus, many literature has discussed the inter linkage between these two variables.

Popli, Parikh, Plamer and Jones (2005) examined whether the estimates of poverty provided by the government of India for the year 1999-2000 are appropriate or not. They examine this issue using non-parametric methods (weighted average derivative estimation methods (WADE)) and provided alternate estimate of poverty for All-India. The result of poverty estimates came out to be 27.7 and 24.7 for rural and urban areas respectively. Their findings suggest that different methods proposed for correcting poverty estimates in India does not have consensus. They showed that while the government of India suggested a decline of poverty by 10 percent in both rural and urban for the year 1993-94 to 1999-2000, Deaton’s estimates suggest a decline by 7 percent for the same period. Whereas, their finding showed a decline in poverty by 5 percent for the same period.
positive. Thus, their finding explains that increase in income does not result in substantial improvements in nutrient intake.

Similar literature on poverty and nutrition has been found in Behrman, Foster and Rosenzweig (1997) which reviews the income-calorie intake relationship basing on production stage, the form of income, the liquidity of assets, and the extent to which income is anticipated for the rural areas of Pakistan. Their findings suggest that distinguishing between the stages of agriculture production is critical for understanding the impact of income on calorie consumption. This is both because of the differential costs of consumption in the two stages of production and because of harvest productivity effects of calories consumed in the planting stage. Their estimates suggest that, there are small productivity effects of caloric consumption in the planting stage that are realized only in the harvest stage, and the calorie elasticity with respect to labour income in the planting stage is relatively high, particularly for households with relatively small landholdings. For low-wealth farmers the cost of an increase in calories in the planting stage approximately equals the resulting increase in profits combined with the substantial increase in their calories consumption in the harvest period suggests that these farmers face a high cost of transferring resources across stages. This implies that improving the operation of credit markets would increase both the welfare and productivity of poor relative to wealthy farmers.

Behrman, Alderman and Hoddinott (2004) analyzed the nature and measurement of hunger and malnutrition and reveals that there is a direct link between nutrition and productivity and indirect links between nutrition, cognitive development, schooling and productivity. Their findings suggest that, there is a strong correlation between maternal education and reductions in undernutrition amongst pre-school children. Secondly their findings show that improving infrastructure is important in reducing the possibilities of famine or chronic hunger. Because, famines and chronic undernutrition currently do not reflect food shortages in the aggregate so much as inadequate access to food for poorer segments of the population – either due to short-run shocks or chronic conditions. Inadequate food access, in turn, reflects limited purchasing power in the short-run or longer-run, often exacerbated by food price shocks in partially segmented markets. Another important finding is in addressing infectious diseases such as malaria and the HIV/AIDS pandemic. For example, HIV/AIDS increase hunger and malnutrition directly by reducing the income and food security of affected households and by interfering with the intergenerational transmittal of agricultural skills. In addition, young orphans and children with chronically ill caregivers risk higher rates of malnutrition. HIV also imposes a dilemma in assessing the increased risks of breastfeeding against the risks of not breastfeeding. Lastly their findings suggest that
dismantling of trade barriers is important for improving malnutrition in developing countries. The notion behind this is because, majority of hungry and malnourished people in developing countries are poor who lives in rural areas and depend directly or indirectly on agriculture for their livelihoods. Changes in the returns to agriculture in developing countries, may thus, have a major impact on hunger and malnutrition in developing countries through affecting the income of the poor and through affecting the prices that the poor pay for basic staples and other foods.

Subramaniam and Deaton (1996) estimated the relationship between economic status (as represented by income or by total expenditure) and nutritional status (as represented by calories) consumed in the rural areas of Maharastra in India. Their findings suggest total expenditure elasticity of calorie for the poorest household is .55 and .40 for the better off households. Those at the top of the distribution pay almost twice as much for their calories, with much of the switch accounted for by substitution out of cheap coarse grains. Except for very poor households, where there is evidence of quality upgrading even within coarse grain, the price per calories rises much less within both groups of food between them. This explains that as income rises, household do not buy more food and more calories.

Behrman and Deolalikar (1989) analysed the relationship between food varieties and the income level. Their finding suggests that as their income and total expenditure on food increase from very low levels, consumer behave as if they increasingly value food variety. One implication of this phenomenon is that calorie intake are likely to increase much less than expenditure on food with increased income for the poor because the poor use the additional income to purchase increase food variety. They also found out that individuals do not perceived inadequate calorie intake to be as in high priority problem as many outside observers have suggested. Thus they suggest that the policy maker interested in increasing calories intake should consider concentrating on policies rather than income generation.

Safiliou-Rothschild, (2001) in their “Food Security and Poverty: Definitions and Measurement Issues” presents the standard and evolving definitions and measures of food security and poverty at different levels, and critically evaluate the impact of development interventions, such as irrigation, on both food security and poverty alleviation. Their findings suggested that Irrigation does bring about a reduction of poverty because of increased agricultural productivity but the impact may not be spectacular, if access to water is not accompanied by any other positive interventions that increase access to agricultural inputs. Irrigation can alleviate poverty, directly through structural changes combining increased employment opportunities and agricultural
productivity and indirectly by enhancing the positive impact of other interventions such as the construction of rural roads and the establishment of micro-finance.

Meenakshi and Viswanathan (2003) in their analytical study reviews calorie deprivation in rural India for the year 1983 – 1999/2000. Their findings show that there is a decline in income poverty over the 1980’s and 1990’s and calorie deprivation in rural India has in fact increased. In 1983, average intakes were below 2400 calories in all but six states and were above the norm only in the northern region. By 1999-2000, intakes had declined in all states except Kerala, Orissa and West Bengal. However, the depth and severity of nutrient deprivation declined, as did the incidence of abject calorie deprivation. Using 2400 norm, their finding shows that the severity of calorie inadequacy increased only in four states, and declined in the remaining 12 states. Despite the apparent divergence between calorie- and income-poverty trends, income continues to be a powerful determinant of calorie intakes. Their estimates, based on a comparison of 1983 and 1993-94 intakes, indicated that calorie elasticities with respect to income were in the range of 0.5 to 0.7 for the poorest quintile in 1983, and were higher a decade later.

Lorant, Thomas, Deliege and Tonglet (2001) investigated whether the relationship between mortality and socio-economic deprivation is affected by the spatial autocorrelation of ecological data. A simple model is used in which mortality (all-ages and premature) is the dependent variable, and deprivation, morbidity and other socio-economic indicators are the explanatory variables. Their finding indicates that all mortality and morbidity variables have significant, positive, and moderate-to-high spatial autocorrelation. Thus the spatial autocorrelation has a significant impact on the relationship between mortality and socio-economic variables.

Deolalikar and Dubey (2003) examined both the incidence of hunger-poverty – as measured by the inadequacy of calorie intake – among Indian metropolitan cities (urban agglomerations) in 1999-2000 as well as the change in hunger-poverty between 1993-94 and 1999-2000. The recent evidence from India suggests a divergent trend in the incidence of consumption-poverty and hunger-poverty; while the headcount index of consumption poverty has steadily declined since the 1970s, the incidence of hunger-poverty is reported to have increased. The studies states that this divergence is due to two reasons. First, the normative calorie norm that has been used to calculate hunger-poverty has remained the same since the 1970s (2,100 calories per person per day). Second, urban areas – comprising both small towns with a population of 5,000 person’s population and large cities with over ten million populations – are treated as a single entity by all the empirical studies. Dubey et al. (2001) have reported that the incidence of poverty in metropolitan cities is only about one-half of that in the smaller towns.
World Bank Report (2001), shows that malnutrition afflicts an estimated 62 million children in all States. Estimates, during the mid-1990s shows that more than half of the children belonging to age group of 1-5 years old in rural areas in 12 out of the 14 larger Indian States are undernourished, with more girl children tending to suffer severe malnutrition. Chronic energy deficiency also persists among adults. In several large states, over 40-50% of adults suffer from chronic energy deficiency. The results of the National Sample Survey Organization 1993-94 quinquennial consumer expenditure survey, used to roughly approximate nutritional intake, suggest that the poorest 25% of the rural population consumed on average 1,900 calories or less per day, in contrast to the average recommended daily allowance (RDA) of 2400 calories. The poorest 25% of the urban population consumed on average 1,700 calories per day or less, compared to the average recommended daily allowance (RDA) of 2,100 calories. The report showed that this is due to inefficiency in implementing programmes that are meant for the poor as well as the inefficiency of the public distribution system.

FAO 2005, evaluated the availability of basic food and accessibility to those foods and to basic nutritional elements in rural India. The crucial findings of this paper revealed that as the farm size decreases, calorie intake per person decreases. They also showed us that junk of the poor are in the marginal and sub-marginal holding of farm. As regards to under nourishment, the paper clearly showed that sub-marginal farm household contributed for 46.9% of the total undernourishment of the rural farm household.

Deolalikar (1988) using data of rural south India, analysed the estimation of a fixed-effects on individual wage equation and farm production function which have calorie intake and nutritional status of workers. He found out that neither farm output nor market wages are observed to be responsive to changes in the daily energy intake of workers. However, both are highly elastic with respect to weight for height. These result suggest that, while the human body can adapt to inadequate nutrition in the short run, it cannot adapt readily to chronic malnutrition that eventually results in loss of weight for height. The other way of interpreting the result is that weight for height is a better indicator of nutrition than average daily calorie intake.

Bhargava (1997) estimates the activity patterns of adult men and women in approximately 110 Rwandese households surveyed four times in 1982-83. Dynamic models are separately estimated for men and women for the time spend for sleeping and resting, performing heavy activities, doing house work, on agriculture. The models postulate simultaneity between men and women’s activities and investigate the differential feedbacks. The main findings are that low income and high food prices reduce the households’ energy intakes, thereby forcing the adult to
spend additional time resting and sleeping. Second, both men and women share the work lot inspite of the poor nutritional status. Third, for women, there is substitution between house work and agriculture, the former tasks being relegated to other household members. Lastly, energy intakes of twice the basal metabolic rate seem inadequate for the sustenance of active adults.

Nandy, Irving, Subramanian and Smith (2005) using anthropometric data of 24396 children in India examined the prevalence of under nutrition. Their findings showed that 45% of children were stunted and 47% of the children were under weight. Moreover, morbidity is also quite high among the children who are under weight and stunted. They suggested that in order to reduce under nutrition, morbidity and mortality, reduction of poverty and improving the standard of living through improving quality of homes and increasing access to clean drinking water and adequate sanitation becomes a must.

Buvinic and Lycette (1989) studied “Women Earning and Child nutrition” in Africa and their findings suggest that children are actually nutritionally better off in the household headed by women. This is largely because when income and resources are controlled by women, it is more likely that more income and resource are likely to be allocated to family food expenditure. Similarly, in Kenya, female-headed households allocate a greater proportion of income towards supplying high-calorie foods than do male-headed households.

Datt and Ravallion (1998) analysed the differences in ranking poverty rate among Indian states for 1960’s and 1990’s. The analysis showed that rural poverty ranking of Indian states in 1990’s was very different from those of 1960’s. This unevenness in progress leads them to study the causes of poverty in developing rural economy. They model the evaluation of various poverty measures using pooled state-level data for the period 1957-91. Their finding shows that differences in trend rate of poverty reduction is due to different growth rate of a farm yield per acre and different initial conditions; states starting with better infrastructure and human resources saw significantly higher long-term rates of poverty reduction. Any deviations from this trend are attributed to inflation and shocks to farm and non-farm output.

Webb 2002, in his study on the nutrition and poverty in South East Asia shows that most food insecure households continue to live in rural areas and generally depend on the agricultural sector for their incomes. Thus he opine that growth which stems from farm productivity, increase directly or indirectly the incomes of smallholders and landless labourers, which becomes a vital importance for reducing poverty in Southeast Asia. But a renewed trajectory of macroeconomic growth alone will neither rapidly reduce income and food insecurity in the region, nor protect the vulnerable from inevitable shocks associated with globally integrated markets and natural.
disasters. The latter may increase in number and severity in coming decades, while the adaptive capacity of both human and ecological communities may become increasingly constrained as a result of urbanization, pollution and macro-level shifts in food and biotic systems. Thus they suggest that policymakers must reduce national and household vulnerability and cope with uncertainty more directly, not through isolationist policies that seek to attain self-sufficiency in all domains, but through direct investments in poor people and poorer places such that the poor can also contribute to capitalizing on new market, technological, and financial opportunities.

Morduch (1994) studies the relationship between vulnerability of income and consumption of poor households. His finding suggests that vulnerability does not just result from poverty, but it can also re-enforce the income processes which lead to poverty and further diminish the expected welfare of the poor. Thus, to overcome this problem he suggested for proper implementation of antipoverty programmes, as these anti-poverty programmes not only address poverty directly but also increase the income of the people. He further suggested for strengthening employment guarantee schemes because it can help reduce poverty through providing wages directly to the people.

Bhargava and Ravallion (1993) tested the hypothesis that consumption evolves over time as a martingale process based on the panel of household data for three villages in South India. The estimated coefficients of lagged consumption are generally smaller than unity and a number of the lagged income and wealth variables are statistically significant. Thus their results were inconsistent with the proposition that consumption equals permanent income.

Navaneetham and Jose (2005) examined the conditions of poverty and morality in South Asia. Their findings suggest that poverty leads to inadequate care for Children and Women, inadequate access to food and insufficient health services and healthy environment. These all things combine leads to malnutrition and sickness. They also showed that stunted growth in adolescent are due to malnutrition. Stunted adolescent will become a malnourished mother, thereby, producing low birth weight. These leads to stunted children and to stunted older people. About child mortality, their studies show that, infant and under five years mortality rates in South Asia are 69.8 and 101.6 in 1998 respectively. These figures are lower than the Sub-Sahara Africa but higher than East Asia and Pacific regions.

Mishra and Lyngskor (2005) studied poverty, dietary imbalance and sickness among casual labourer in Shillong, India. Their findings show that average per capita (per month) income and consumption expenditure are Rs. 516.61 and Rs. 392.13 respectively. The poverty line as estimated by them in urban areas of Meghalaya came out to Rs. 395.6. From these they showed
that 38.4 percent of the total populations surveyed were under poverty. The average energy intake among the Below Poverty Line (BPL) households is 1307.66 calories per person per day. The result of their finding regarding sickness was that, 77.78 percent are in the poverty.

2.4: POVERTY AND INEQUALITIES:

One of the causes of poverty is the inequality that exist in the society; the inequality in the distribution of income and wealth, in terms of opportunities and education etc. thus, many studies have been done to evaluate the relationship between poverty and inequalities.

Barro (1999), analyzed the effects of income inequality on macroeconomic performance, as reflected in rates of economic growth and investment. Much of his analysis is empirical, using data on the performance of a broad group of countries. His findings from a broad panel of countries show little overall relation between income inequality and rates of growth and investment. For growth, there is an indication that inequality retards growth in poor countries but encourages growth in richer places. Growth tends to fall with greater inequality when per capita GDP is below around $2000 (1985 U.S. dollars) and to rise with inequality when per capita GDP is above $2000.

Milanovic (1998) tested the hypothesis that median voter plays an important role in countries distribution of income. He tested it on 79 observations drawn from household budget surveys from 24 democracies. He found out that the data strongly support the hypothesis that countries with more unequal distribution of factor income redistribute more in favor of the poor—even when we control for the share of the elderly in the population, or for pension transfers. He also found that the middle income groups gain more/or lose less through redistribution in countries where initial (factor) income distribution is more unequal, but this regularity evaporates only when pensions are dropped from social transfers and focus solely on the more redistributive social transfers.

Alam, Murthi, Yemtsov, Murrugarra, Dudwick, Hamilton, and Erwin Tiongson (2005) examine the impact of growth on poverty and inequality in Eastern Europe and the Former Soviet Union during 1998–2003. They update the World Bank’s previous study on poverty, entitled “Making Transition Work for Everyone”, which appeared in 2000. To measure poverty, an absolute poverty line of $2 a day1 was used, comparing it with household consumption per capita. This line was a closer approximation to basic material needs in the Region than the well-known global standard of $1 a day because of the additional expenditures on heating and warm clothing that are required by the cold climate. In terms of poverty levels, the Region was divided in four distinct subgroups of countries. Their findings shows that, the eight new member states of the European Union (EU-8) have low poverty (less than 5 percent) confined to specific subgroups of
the population. Secondly, Countries in Southeastern Europe (SEE) have generally moderate levels of poverty (around 5–20 percent). Thirdly, the same poverty level that exist in Southeastern Europe exist for the middle-income countries in the Commonwealth of Independent States (CIS). Lastly, the low-income countries in the CIS, however, have extremely high levels of poverty (more than 40 percent).

Brewer, Goodman, Shaw and Shephard (2005) provide an updated on trends in poverty and inequality in Great Britain, based on the latest official government statistics. They use the same approach to measuring incomes and poverty in Great Britain as the government employs in its Households Below Average Income (HBAI) publication. Their finding shows that in 2003/04, almost two-thirds of the population had incomes below the national average income of £408 per week. The distribution is skewed by a relatively small number of people on relatively high incomes. Median income in 2003/04 was £336 per week – in other words, half the population had household income below this amount. They also showed that between 2002/03 and 2003/04 child poverty fell by 100,000 measured after housing costs (AHC) and was unchanged measured before housing costs (BHC). These changes were smaller than have been expected, given the amount of new spending directed towards families with children through the new tax credits. Throwing light on child poverty, it stands at 3.5 million AHC and 2.6 million BHC. They gave the reasons why child poverty fell by less than expected. First, administrative problems with the new tax credits in the first quarter of 2003/04 meant that many families had lower-than-expected incomes at that time. Second, the number of children living in families where no adult works rose, according to HBAI, although this is at odds with evidence from other sources. Each of these reasons increased child poverty by around 90,000 AHC and 80,000 BHC.

Son (2007) examines the relationships between economic growth, income distribution, and poverty for 17 Asian countries for the period 1981–2001. His findings show that there is a trade-off between inequality and growth. Thus, his analysis suggested certain policies, firstly, the government should opt for pro-poor policies and reducing inequality because it benefit the ultra-poor much more than the poor living close to the poverty line. Secondly, growth-enhancing policies would be more effective for countries where mean income is low and the trade-off index is very small, say less than 1. Lastly, when the level of inequality is higher, the trade-off index will be greater. Therefore, he suggests that in such a situation, inequality-reducing pro-poor policies will be more effective.

Vaidyanathan (2002) explain how the data on income distribution are collected and analyzed in India and how these procedures could be improved. His analysis on the consumer
expenditure survey (CES) of 1993-94 showed that in the rural areas, the bottom 30 percent of population contributed to 14.25 percent of total consumption expenditure in comparison to the 51.7 percent by the top 30 percent. Whereas, in the urban areas the bottom 30 percent of the population contributed to 12.14 percent of total consumption expenditure as against the 56.05 percent by the top 30 percent. This in effect indicated that the poor were poorer and the rich richer in urban areas in comparison to those living in rural areas. Comparing these results with the CES of 1987-88, it is observed that in both rural and urban areas the share of the bottom 30 percent of the population had declined while the share of the top 30 percent had increased indicating an increase in inequalities. The sources of income distribution statistics are consumer expenditure surveys of NSS, income surveys of NCAER and national accounts statistics of the CSO. Unfortunately, he pointed out that, the estimates from these three sources of data have not been mutually consistent, leading to arguments about the accuracy of the data. Thus, he suggested that, NSSO should explore the possibility of collecting information on income as an adjunct to the surveys on economically active population, to facilitate comparisons between findings of the income surveys with the results of the CES. The interviews in the CES should be spread evenly over the 12 months to overcome seasonal variations. And since the valuation of consumption of home-grown crops / products at the farm level or ex-factory prices introduces underestimation of consumer expenditures, an additional column may be introduced in the CES questionnaire to include the market value of such products as reported by the respondent.

Dubey, Gangopadhyay and Wadhwa (2001), examined the incidence of poverty in Indian towns and cities. Investigating through logit model, they found that poverty incidence decline with town and cities size for all occupational groups. The findings also showed that education did play an important role in reducing poverty. However, while larger cities have higher educational levels, education alone does not explain the differing poverty incidence. One explanation is that larger cities have better social and economic infrastructures. Thus, their findings show that larger towns and cities are capable of supporting more complex economic activities and in improving labour productivity, and hence lowering the incidence of poverty.

Deaton and Dreze (2002) presents a new set of integrated poverty and inequality estimates for India and Indian states for 1987-88, 1993-94 and 1999-2000. The poverty estimates are broadly consistent with independent evidence on per-capita expenditure, state domestic product and real agricultural wages. They show that poverty decline in the 1990s preceded more or less in line with earlier trends. Regional disparities increased in the 1990s, with the southern and western regions doing much better than the northern and eastern regions. Economic inequality also increased
within states, especially within urban areas, and between urban and rural areas. They briefly examine other development indicators, relating for instance to health and education. The result shows that most indicators have continued to improve in the nineties, but social progress has followed very diverse patterns, ranging from accelerated progress in some fields to slowdown and even regression in others. Thus they found no support for sweeping claims that the nineties have been a period of "unprecedented improvement" or "widespread impoverishment".

Sen and Himanshu (2004), examine 55th round of the NSS in the context of other NSS rounds to examine the 1990s trends in their entirety. Comparison of these food-adjusted 55th round counts with the 50th round mixed 30/365-day recall (MRP), their finding shows that although poverty ratios may have declined, this was by at most 3 percentage points and the absolute number of poor did not decline. Since this magnitude of poverty reduction during 1993-2000 is less than that obtained for 1987-1994 with previous NSS thick rounds and implies no reduction in the number of poor, it corresponds to the gut feeling expressed by many at the seminars referred to above and corroborates the pre-55th round consensus that the 1990s were a relatively lost decade for poverty reduction.

Jha (2000) examines the empirical relationship among inequality, poverty and economic growth in India. Using data on consumption from the 13th to the 55th Rounds of the National Sample Survey, he computes, for both rural and urban sectors, the Gini coefficient and three popular measures of poverty. His finding shows that there is a change in inequality and poverty. There is a sharp rise in rural and, particularly, urban inequality and only a marginal decline in poverty in the post-reform period. The rise in inequality is explained in terms of an increase in the relative share of output going to capital as compared to labour, a drop in the rate of labour absorption and the rapid growth of the services sector. The rise in inequality has diminished the poverty-reducing effects of higher growth. The reforms have also been characterized by widening regional inequality. This is especially true in the case of the incidence of rural poverty, but also, to a lesser extent, urban poverty. Thus, he suggested that the composition of growth should be altered to encourage agricultural as opposed to non-agricultural growth, especially in the poorest areas. Moreover, there should be widespread tax reform to increase tax revenues which would enable greater provision for public expenditure for anti-poverty programmes. Lastly, the efficiency of public expenditure and of the social safety net should be improved.

Pradhan and Subramanian (1999) analysed the role of education and skill development in mitigating social and economic vulnerability. Their findings report some new evidence from an all-India household survey on demand and supply issues in schooling. In India, most studies
attribute poor educational performance to poverty. Though this factor is important, the recent survey evidence shows that just lack of interest in schooling is the major factor explaining low enrolment and high dropout rates in India. This is because of the lack of expected future earnings. They suggest that the solution to this problem lies in reorienting the educational sector to demand lead supply transformation towards skill enhancement by privatising the educational sector. The role of the state should also be reduced to support only the basic education at the primary level.

Singh (2007) examined the extent and nature of poverty between the valley and the hills districts of Manipur. His finding shows that there is a marked difference in the extent of poverty between the valley and the hills in Manipur. Districts wise poverty in Manipur shows that poverty ratios in all the hills districts exceed 50 percent, except sanapati, in 1988. But for the valley districts, the ratios are below 45 percent in the same period. Besides the poor and uneven economic performance of the state and the lackadaisical implementation of poverty alleviation schemes, he pointed out that, the failure of land reform in the hills explains the persistence of poverty in the hills.

2.5: POVERTY ALLEVIATION PROGRAMME:

Reduction of poverty has been the main objective of many government and nations. The Millennium Development Goal of the World Bank to reduce poverty depicts that poverty is the main problems facing the world today. As such many programmes have been initiated by the NGO’s as well as by the government. But how successful those programmes have been are evaluated by many scholars. Many literatures explain the causes for success and failure of those programmes and the obstacles facing the implementation.

Fan, Zhang and Zhang (2002) explain the role of specific public investment in promoting growth and reducing poverty and in regional inequality in rural China. Using provincial-level data for 1970-97, they develop a simultaneous equation model to estimate the effects of different types of government expenditure. This model not only ranks the marginal effects of public investment on growth and poverty, but also tracks various channels of investment and their effectiveness. The results show that government production-enhancing investment, such as, agricultural research and development, irrigation, rural education and infrastructure contributed not only to agricultural production growth, but also to reduction of rural poverty and inequality. Moreover, Government expenditure on education had the largest impact in reducing poverty and regional inequality and significant impact on production growth. Lastly, increasing rural non-farm employment has got a favourable effect in poverty and inequality reduction.
Somanathan (2006) explains the role of state programs in reducing poverty and also illustrates some of the biases inherent in using household consumption data to arrive at poverty estimates. His analysis on the available data's on the distribution of household consumption and of public spending suggests the following conclusion. First, that some types of spending can substantially raise household consumption and reduce poverty. Second, that the benefits from public programs are spread unevenly, both across and within regions, and these benefits are not well captured by measures of household consumption typically used to estimate poverty. As a result, there is likely to be some misclassifications of poor and non-poor households and regional differences in poverty may be larger than what the current estimates suggest. It appears, ironically, that the poor in India are often excluded from the benefits of state redistribution. In this sense, poverty and exclusion go together and an accurate assessment of poverty requires an understanding of the nature of this exclusion.

Srivastava, Dutt, Nagaraja, Bandyopadhyay, Rani, Hegde and Jayaraman (2004) examined the policies and interventions related to poverty alleviation. Since incidence of poverty and land degradation is seen to co-exist in several agro-ecological zones in India. They are of the view that, policies and interventions related to poverty alleviation, should aimed at breaking this nexus, drive labour and capital flows by creating the alternate livelihood systems beyond the exploitative dependence of stakeholders on marginal natural resources. Using the maps brought out by National Remote Sensing Agency on National wasteland, they brings out the dynamics of relationship between the incidence of poverty and natural resources degradation in the different States of India, representing the diverse ecosystems as well as different economic and social policy regimes and institutional mechanisms. Looking beyond wasteland mapping, their study examines how macro-economic variables could determine the dynamics of poverty and natural resources degradation relationship in rural India.

Lanjouw, Pradhan, Saadah, Sayed and Sparrow (2001) investigated the extent to which the poor benefit from public and private provisioning of these services: education and health. They carry out traditional static benefit-incidence analysis of public spending in education and health, and find patterns which are consistent with experience in other countries: spending on primary education and primary health care tends to be pro-poor, while spending on higher education and hospitals is less obviously beneficial to the poor. They also examine the incidence of changes in government spending. The result was that the marginal incidence of spending in both junior and senior secondary schooling is more progressive than what static analysis would suggest, consistent with a process of “early capture” by the non-poor of education spending. Thus in the case of
health, marginal and average incidence analysis point to the same conclusion: the greatest benefit to the poor would come from an increase in primary health care spending.

Joshi and Moore (2000) analysed how the government and other agencies designed and managed their anti-poverty programmes to encourage mobilization of funds. They pointed out the advantage and disadvantage of the direct method of attacking poverty and put a case for the indirect or parametric approach that encourages the poor people, social activists and grassroots political entrepreneurs to invest in pro-poor mobilization. The indirect approach includes provocation, conscientisation, organizational preference and creating an enabling institutional environment. They present a language of understanding the various dimensions of this enabling institutional environment by setting the examples of two successful cases: rural water supply in Nepal, and the employment guarantee scheme in Maharashtra.

Tarozzi (2002) examined whether a sudden increase of the price of rice supplied by the Indian Public Distribution System in Andhra Pradesh had a negative impact on child weight. After the price increase, the Indian National Family Health Survey started measuring weight in a sample of children in Andhra Pradesh. The data collection continued for several months, so that children measured later in the survey lived for a longer period of time in a less favourable price regime. They studied whether this implied a worsening of their nutritional status as measured by weight, but their findings do not have any evidence supporting this hypothesis.

Moon and Dixon (1985) studied the ways political processes influence the provision of basic human needs once the effects of aggregate national wealth are removed. The findings of the study confirm that political attributes of states do indeed have some impact on the provision of basic human needs when controlling for aggregate social wealth.

Deshpande (2002) examined the impact of infrastructure development in alleviating poverty in Maharashtra. His findings show that lack of infrastructure related basic needs has deprived the rural people of the benefits of development. This creates a gap between living conditions of the rural viz-a-vis urban populations. The findings also pointed out that despite Maharashtra being an industrially advanced State; agriculture continues to be the main provider of employment to very large proportion of the State's work force. Infrastructure and productive assets created under four schemes are of utmost importance to all farmers in general and small/marginal farmers in particular because marginal and small farmers are the potential beneficiaries of the poverty alleviation programmes/schemes. Since poverty alleviation programmes are meant to benefit villagers, He suggests that involvement of contractors should be discouraged. And at least
providing employment to needy from the same village should be made mandatory to contract seeking agencies.

Datt and Ravallion (1994) studied the public employment schemes, which are aimed at directly reducing poverty in Shirapur district of Maharashtra. The result states that failure to obtain such work by the poor people are due to corruption because such employment are rationed.

Nair & Mathew (2000) examine as to what extent development programmes by several tiers of government have shaped the economic social and political life of the people of this village. Their findings suggest that even though the governmental interventions have taken place in several sectors of the economy, it has a very negligible impact on the quality of life of the people. Put together, all these programmes have not so far been able to offer even the basic necessities, like drinking water, sanitation, medicine and transport to a satisfactory extent. Moreover, their findings showed that lack of appropriate programmes itself was a problem, particularly programmes involving the participation and involvement of a large number of people, to make even a short-run attack on underdevelopment and poverty. Lastly, the disinterest of a large number of people in developmental activities is a symptom of wider problem rather than a cause.

Datt and Ravallion (2003), examined the impact of countries economic growth with that of poverty. They argued that India has probably maintained its 1980s rate of poverty reduction in the 1990s. However, there is considerable diversity in performance across states. India’s economic growth in the 1990s has not been occurring in the states where it would have the most impact on poverty nationally. Moreover, due to sectoral and geographic imbalance of growth, the national rate of growth cannot generate a rate of poverty reduction that was double India’s historical trend rate. Lastly, their findings shows that states with relatively low levels of initial rural development and human capital development are not well-suited to reduce poverty in response to economic growth.

Bagchee (2005) analysed the Maharashtra employment guarantee scheme. His finding showed that, the programme was successful because it enjoyed a commitment widely shared across the political spectrum. Moreover, strong inputs in terms of planning, budgeting and technical supervision made the programme successful. Thus, she states that it will be difficult to replicate the same political commitment in India of 2005. However, she support the implementation of the employment guarantee scheme on the ground that 250-300 million of the population are still poor, which is a social disease.

Kannabiran (2005) examined the correlation between marketing self-help group and the impact on poverty. His findings showed that the increasing participation of women in micro-credit
and formation of women’s self-help group’s have done a little more than assuring short-term relief to ease immediate needs. However, he points out that a long term social, political and cultural vision will end the subordination of women and poverty instead of focusing on a short term micro-credit to ease the immediate needs.

Singh (1989) studied the impact of IRDP in alleviating poverty in India. His findings showed that the beneficiaries of the programme have crossed the poverty line in the country. The findings also showed that there are many problems encountered in implementing such programme. Thus, they suggested that at the district level decentralization of planning is a vital importance in making the programme effective. Lastly, people’s participation in the planning system was also suggested.

Sharma (1994) studied poverty and unemployment in Himachal Pradesh. The findings showed that there is an inter-relationship between the value of household productive assets, gainful employment opportunities, household income and the consumption expenditure. On the smaller size of holdings due to the lack of sufficient productive assets, the family human labours are either unemployed or under-employed, which resulted into meagre household income with the help of which they are not even in a position to meet out their minimum food and non-food income. The head count ratio came out to be 32.06 percent.

Ao (1993) studied the impact of poverty alleviation programmes undertaken by the State Rural Development Agency (SRDA) and implemented by the local level organisation particularly the Village Development Board (VDB) at Medziphema. His findings reveal that not much was done under State Rural Development Agency (SRDA) in uplifting the poor. It was found that under TRYSEM programme, there was no training facility in Medziphema where young men and women can be trained. Moreover, the objective of National programme to improve chullah was found missing.

But the main weaknesses in most of these studies done in India are that, they consider only the so called major states of Indian Union (sixteen to seventeen States). Therefore, all the states belonging to the North-Eastern region in general and Nagaland in particular, with the exception of Assam state, have been left out of these studies. So far no literature on measuring and discussion on poverty and nutrition have been found in Nagaland. Thus, this study is aimed at filling up those lacunae.