CHAPTER – I

INTRODUCTION

The significance of agriculture and rural development in India, has rightly been stressed by the new Prime Minister Dr. ManMohan Singh. The crux of the matter is, whether antipoverty programmes have had much dent in to the rural areas and during the post globalization era? After 1991, is there any perceptible breakthrough in poverty eradication and employment generation?

No doubt, antipoverty programmes have been implemented. But, it is equally true that, rural poverty and unemployment still haunt the rulers. So, a multi-pronged attack on reduction of poverty and increasing rural employment, by a massive increase in public sector in vestment, is the need of the hour. Keeping in mind the above facts, this Doctoral Dissertation tries to examine not only the causative factors of rural poverty but also makes an impact study of anti-poverty programmes, globalization and food security. In order to undertake a comprehensive on rural poverty, a brief discussion about rural economic status in the context of globalization deserve due attention on the part of this study.

Rural Economy and Globalization

Rural development, uplift of rural people and more specifically, the alleviation of rural poverty continue to be the central concern of
development planning in India. It could be noted that in India nearly 60 per cent of the population depend on agriculture and its allied activities for their livelihood either directly or indirectly. However, there is a growing concern on rural development in India in consequence of the implementation of New Economic Policy since 1991. There is a growing concern the deleterious impact of GATT on Indian agriculture and rural development. Borrowing from International Monetary Fund and acceptance of GATT treaties of WTO has imposed a check on agricultural subsidies. The new economic reforms introduced in India in consequence of GATT and WTO agreement and treaties have created worries among people. This thesis analyzes the impact of new economic reforms in rural development.

**Economic Reforms and Agriculture**

The state intervention in agriculture could be analyzed carefully. The structural adjustment measures and government economic interventions have some influence over the others. It includes providing non-marketable facilities, marketable facilities, price distortions and regulations to subsidies and levies. Adjustment towards true price system i.e., a price system that correctly reflects the scarcities in the economy, the necessity of providing market facilities and removing price inhibition or regulations is far less evident. It could be noted that in developed countries, also while a vital role is played by private sector in production and of marketing agricultural products, the role of the state in determining floor and ceiling prices for agricultural commodities,
stock piling of excess quantities and providing a legal framework for all transactions, especially relating to land ownership. In these countries, a sort of division of labour between state and private enterprise has been put into operation. Developing countries should draw lessons from this particular division of labour.

The effectiveness of the market mechanism in promoting agricultural development is a major concern in the era of economic reforms. Developed countries also well recognized that the state has to intervene in the agricultural markets with a view to ensure reasonable returns and stable income to the farmers. Market interventions by the government in the agricultural sector are quite common in all types of economies from Japan and South Korea to France, Switzerland and America.¹ The justification of state intervention in agricultural products and credit markets is all the more strong in the context of Indian agriculture suffering from inadequate development of infrastructure and strong and pernicious linkages between rural credit, labour and product markets.²

It is a known fact that the agricultural price policy pursued in India has worked against the interests of Indian farmers, as the internal prices are isolated from the international prices and in fact Indian

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Agriculture is subjected to disposition in contrast to the high protection enjoyed by the Indian industries.³

Regarding agricultural prices there is a need to analyze to what extent farmers rely on price incentives to increase agricultural output. It is observed that in the case of individual crops Indian farmers have been found to be quite responsive to price policy which can be used to bring about shifts in cropping pattern in favour of preferred crops. The aggregate supply response of agriculture is debatable one. The available studies indicate fairly low aggregate supply elasticity of agriculture.⁴ In the Indian context, therefore, importance of non-price factors like appropriate technology, institutional changes and infrastructure play an important role in agricultural development.

There is a need to analyze to what extent international prices can be used as a reliable guide for determining agricultural policy. It is well known fact that the international prices of agricultural goods do not reflect free market prices and are highly distorted and volatile. As Dantwala has rightly remarked, apart from international prices there are several relevant factors, which should guide agricultural policy viz., agro-climatic potential of different regions, and technological horizon of different crops, domestic demand and supply in the context of balance of payment constraint.

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⁴ S.L. Bapna, Aggregate Supply Response of Crops in a Developing Region, Sutian Chand and Sung, New Delhi, 1980.
Moreover, by a suitable procurement policy the Government should ensure that high agricultural prices do not benefit only the surplus-producing farmers, who constitute a small proportion of Indian farmers. A large majority of farmers still produce food grains for domestic consumption and are either outside the framework of the market mechanism or are forced to resort to distress sales.

The main advantage of successful structural adjustment is the disappearance of economic problem involved in the distinction between current and shadow prices. By imposing real exchange rates, major cause of difference between social utility values and current prices is removed. The removal of irksome taxes and subsidies as well as imposition of modern tax system such as the value-added to tax obeys the same logic. No doubt Privatization of activity encouraged by the State removes some price distortions. But it can also have side effects such as depriving farmers of free access to technical information. If such side effects are undesirable, they may be corrected by relevant projects. In addition, there are situations where public interventions are obviously necessary, independently of any structural adjustment programme.

**Economic Reforms and Subsidies**

The supply of key agricultural inputs like fertilizers, canal water and electricity at subsidized rates is an essential part of the strategy of agricultural growth with low output prices. The input subsidies have to be given in the light of its impact on agricultural growth and welfare and
not to be viewed from the narrow viewpoint of reduction in fiscal deficit alone. Increases in irrigated area and fertilizer use have been the critical variables in initiating the second green revolution in the country. The decline in fertilizer consumption consequent upon a sharp rise in fertilizer prices, would affect the food grain production. The reduction in net income of farmers, consequent on sudden withdrawal of subsidies, would also affect private investment in agriculture.

The small and marginal farmers would be particularly adversely affected, since they are not in a position to benefit from higher output prices due to lack of marketable surplus. Reduction in fertilizer intake by them would affect available food supply to them through lower production. Thus, they will be subject to a double burden. It is good that the Eighth Five Year Plan document recognizes the likely adverse effect of reduction of fertilizer subsidy on agricultural production and consequences of its inequities for the small and marginal farmers.5

It would also be pertinent to add here that not all the losses in supply of agricultural inputs can be treated as a subsidy to the agriculturists. Nearly half of the fertilizer subsidy goes to support the fertilizer industry. In fact, fertilizer-grain price ratio is relatively unfavourable to the Indian farmers as compared to the ratio prevalent in other countries. There is also considerable overstaffing, inefficiency

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and theft in the working of Irrigation Departments and State Electricity Boards, which need to be attended to. Finally, one should recognize the 'public good' nature of infrastructural facilities like irrigation and rural electricity, which have a favourable impact not only on the agricultural sector but the rural economy as a whole. There is thus a good case for limited and targeted subsidies for land and water development programmes to boost agricultural output and incomes.  

**Economic Reforms and Rural Credit**

The analysis of the implications of financial sector reforms on agricultural development deserves due attention on the part of the present study. The expansion of commercial banks in the rural areas and emphasis on priority sector lending since the nationalization of major banks in 1969 have played an important role in increasing institutional credit availability in rural areas and supporting the spread of the green revolution. The reorganization of the financial system on market-oriented policies will affect the flow of credit to the rural areas. The Narasimham Committee has recommended that the share of priority lending should be brought down from the present 40 per cent level to 10 per cent in the near future and eventually phased out. The committee has also recommended phasing out of confessional rate of interest on priority sector loans. Fears have been rightly expressed

among economists that these measures would have a serious deleterious impact on agriculture and rural development.

The inhibition in credit supply and domination of large farmers in availing the benefits of credit programmes is the common phenomena in India. The proponents of financial sector reform miss some important points. They are (i) sudden contraction of availability of commercial bank credit to the large and medium farmers would impair agricultural growth and reduce the supply of foodgrains, thereby causing general economic disruption and (ii) the growth of institutional credit advanced to small and marginal farmers have been higher and they now account for over 40 per cent of total institutional credit and 62 per cent of short-term credit, far in excess of their share in area, they operate. In fact, the commercial bank credit is more than the cooperative credit. Further, the greater reliance of the small and marginal farmers on non-institutional sources at exorbitant interest rates should not be used to justify the hike in interest rates by commercial banks. Rather, they have to be taken out of such exploitative linkages through increasing their access to institutional credit at reasonable rates.

The rapid growth of agricultural and non-agricultural segment of the rural economy would require a larger flow of institutional credit than in the past. The banking and cooperative credit agencies have to gear themselves up to meet this difficult challenge.

**Economic Reforms and Price Policy**

It is evident that the government has liberalized international trade in food grains allowing domestic prices adjust to international levels. Currently, prices of wheat, coarse grains and pulses in India are roughly 10 per cent more than the international prices and rice prices 30 per cent less. However, the agreed GATT Agreement is likely to push up relatively the prices of wheat and coarse cereals by 5 per cent while bringing down the rice prices. Hence the liberalization of agricultural trade in the post GATT scenario may involve a rise in the domestic relative prices of food grains by about 15 to 20 per cent. The effect of such a price rise, as measured by calculation of price elasticity, would be the reduction of consumption of the poor while leaving that of relatively affluent unaffected. Export surpluses of food grains could be at the cost of the poor consuming significantly less than even the inadequate amounts they consume today. It should be noted that while the effect of exporting food grains upon domestic prices and availability is direct and, therefore, more obvious. Similar results would occur even if other non-food cash crop exports are encouraged, in so far as these imply acreage shifts away from food grains rather than substantially increasing total supply.
The outcomes of price policy depend upon a number of factors, viz., (i) the exporters of a product, whether they are self-employed small peasants or capitalists, (ii) the commodity exported, (iii) proportion of the poor in different sectors, (iv) weight accorded to the poor in overall policies, and (v) effects of contraction in expenditure. If the exporters are poor and small peasants then, adjustment through devaluation will benefit the poor. When the commodity exported is staple food of the poor, prices will rise and the poor will be the sufferers. The contractionary effects of adjustment will hurt the poor as a consequence of contraction of public investment associated with further contraction of private investment. When the effects fall on social expenditure, the poor are the victims of a decline in health and education services.

**Effects of Economic Reforms and Rural Employment**

New economic policy has effects on rural employment. These effects occur in the form (i) withdrawal of subsidies on inputs in agriculture, and (ii) liberalization of industrial and trade policy.

Many studies have mentioned the well known fact that within agriculture, there are heavy subsidies for fertilizers, power and irrigation. These subsidies contribute to huge fiscal deficit and, therefore, it is proposed to withdraw these under NEP. These subsidies

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create inequality between regions and distort the allocation of resources; even then, they have a role to play in increased employment and output within agriculture. The cost of inputs to the farmers is reduced, which in turn contributes to intensive use of land. This has got direct and indirect benefits on employment. Larger input-use leads to generation of employment, which is a direct benefit. However, indirect benefit is achieved through employment generated by additional output.

Hence withdrawal of subsidies for inputs in agriculture would reduce employment in agriculture sector. It happens in the form of (i) price elasticity of input use, (ii) elasticity of employment to yield and (iii) elasticity of crop yield to input use.

Fertilizer is one of the most important inputs and the subsidies are most prominent in this respect. It has been found that in many states of India, elasticity of crop yield to fertilizer use is positive and the price elasticity of fertilizer use is negative.\textsuperscript{10} A relative rise in the price of fertilizer may induce substitution by organic manure, which is good for sustainable agriculture development; and has to be deliberately promoted. A rise in produce price along with a rise in fertilizer price could arrest the increase in the relative price of fertilizer and work against disincentives to use. But the rise in produce price is not less inequitable than subsidy on fertilizers. The non-price factors such as

\textsuperscript{10} Sharma and Haque, T. "Impact of Fertilizer Subsidy on Growth and Equity," Highlights of Agricultural Research, IASRI, 1987.
improved access to credit and improved fertilizer prices may act as a cushion. As a result of reduction of fertilizer subsidy, there can be some employment uses. However, there is need for a phased withdrawal of subsidies in agriculture.

The internal and international competition improves efficiency because of liberalization and the domestic gross capital formation is also increased due to Foreign Direct Investment (FDI), which in turn is expected to step up growth rates and also employment, depending upon the changes in technology and their effects on elasticity of employment to output. The multi-national corporations have displacement effects on employment. It is observed that i) the MNCs employ techniques which are more capital-intensive than domestic enterprises, and ii) the chance that a local project would have emerged in the absence of direct foreign investment. It is evident that the techniques employed by MNCs are more capital-intensive than those employed by local enterprises. In the case of second issue, this is least likely in areas where local firms do not have access to knowledge. The more capital-using techniques of MNCs will have some adverse effect on employment. The adverse effect of technology, consequent on entry of MNCs, could be compensated only by additions to investments and rate of growth far higher than what could be obtained without such investment. Such compensatory benefits are likely to be realized in short and medium terms. Therefore, one would expect the rate of labour absorption in the sector to decline.
Liberalization of trade is unlikely to expand agricultural and rural exports in the absence of development of infrastructural facilities for export markets. The short-term effects on employment are unlikely to be favourable even if exports are stepped up through promotion of agro-processing, since the employment intensity of modern processing is likely to be less than the corresponding intensity of traditional industry. Modern processing develops a whole range of new industries, resulting in addition to aggregate employment. Then the modernization of agro-processing should result in more efficient use of raw material and also contribute to utilization of by-products, which remain unutilized. Both these effects are likely to be observed in the long run, but in the short run one should expect a reduction in employment as traditional processing is replaced by modern processing.

**Economic Reforms and Rural Poor**

The effects of structural adjustment could fall on the rural poor in the following ways: (i) some people are direct victims of structural adjustments such as employees of rural health and school teachers in village retrenched as a consequence of cut back in public expenditure in the areas of health and education. They may be called new poor (ii) some individuals and families whose income are so low that price increases by structural adjustments may push these people below the poverty line. The concern here is with all the categories of rural poor not just the newly poor or the border-line poor pushed into the poverty net.
Adam Smith, the founder of the English Classical Economics School, outlined policies, for rapid industrialization, in his magnum opus, “An Enquiry into the Nature and Causes of the wealth of Nations” (1776) Even Kard Marx, in his “DAS CAPITAL” discussed about exploitation of the proletariats. But, it was Gunnar Myrdal who voiced the pitiable conditions of the poor in Asian region. His book “Asian Drama” – set the trend for a deep insight into Poverty Eradication, John K.Kennedy, the late U.S. President rightly observed “That Poverty anywhere is a threat to prosperity everywhere”. Amartya Sen, the Nobel Laureate in Economics, has called for a multi-pronged attack on Poverty in India, through Education, Adequate Nutrition and Proper health benefits, to the rural poor. The world development Report (1999) has stressed the need to harness global forces, for the upliftment of the poor.

The business line dated November 15, 2005 in its editorial rightly observed that “GOING BY THE Dhaka Declarations-issued at the end of the 13th SAARC, summit, it would appear that the focus of the meeting was on regional economic cooperation. A good part of the document dealt with this subject. However, the thrust was on poverty alleviation, with the heads of state laying emphasis on the continuation of efforts "to free South Asia from poverty, hunger and other forms of deprivation and social injustice which present a daunting challenge". In fact, the Summit took some specific action towards this end: it declared
2006-2015 as the SAARC Decade of Poverty Alleviation and also set up a SAARC Poverty Alleviation Fund."

The idea of freedom from want expresses an aspiration as old as mankind.... But in this generation freedom from want has been taken out of the realm of utopian ideas. The conviction has spread that it can be achieved; indeed it is held by hard - headed businessmen and skeptical scientists no less than by the dreamers and idealists. Freedom from want means the conquest of hunger and the attainment of the ordinary needs of a decent, self respecting life if this can be done within and among nations by their separate and collective action, some of the world's worst economic ills, including hunger and extreme poverty will be on the way to extinction”.

This challenge is not lifted, as it may sound, from a report on the Millennium Development Goals or the recently discussed proposal on U.N. Reform in Larger Freedom. It comes rather from the June 1945 General Report on the Work of FAO made to the United Nations Interim Commission of Food and Agriculture. As the United Nations and the Food and Agriculture Organization mark their 60th anniversaries this month, it is work re-examining. How far have we come and how differently we see our current challenges?21

Post – Reforms Era – Need for Poverty Reduction:

Not with standing the gains in some sectors, after 1991, in India, rural poverty incidence has not considerably diminished. Research studies by S.S.Bhalla, Tendulkar, T.N, Srinivasan, Martin Ravallion reveal divergent views on the extent of reduction. While there is gentle agreement on reduction of poverty some research scholars have indicated the wide increase in the extent of inequality among states in India. 12

According to the Bank's Chief Economist and Senior Vice-President for Development Economics, Mr Francois Bourguignon, migrant workers' productivity and earnings are “a powerful forces for poverty reduction” with the number of such persons worldwide reaching almost 200 million.13

It is well known that even after 50 years of independence and over three and half decades of planned economic development, India remains predominantly a rural society with bulk of her huge population living in villages under conditions of grinding poverty. Mass unemployment and

under employment, widespread illiteracy, use of primitive technology, low rates of savings and investment, gross inter-regional and intra-regional inequalities of incomes and wealth and mounting inflationary pressures still continue. Poverty in India is all pervasive and phenomenal and also both relative and absolute, fact the dimension of the problems of poverty are much wider than those of unemployment, since a large number of persons are employed in activities which do not yield sufficient income to meet the minimum necessary expenditure on essential goods and services.

Several attempts have been made to estimate poverty in our country. (Whether the minimum level of consumption or lack of income to acquire the basic needs of life is used as a barometer to quantify the poverty. Thus in 1957, the Indian Labour Conference mooted the question of defining poverty and drawing poverty-line. On the recommendations made by the Nutrition Advisory Committee of the Indian Council of Medical Research established in 1958, a study-group was set up by the planning commission in 1962, which decided a consumer expenditure of Rs. 20 per capita per month at 1960-61 prices as the poverty line. After that in the early seventies in order to measure the number of people below the poverty line several studies by prominent economists like Minna? (1970), Bardhan (1970, 1973), Dandekar-Rath (1971) Vaidvanathan (1974) and the Planning Commission (1978) were done. All of them view the problem of poverty from two angles viz., the minimum level of living and the inadequacy in food consumption; Minnas' used the national income deflator, where as Vidyanath-in
used the agricultural labour consumer price index-Prof. V.K.R.V. Rao is of the view that poverty has to be identified with deficiency in the total level of living including not only total energy requirements but also a balanced diet needed for human existence at a tolerable level.14

There are three alternative estimates of per central population below the poverty line on the basis of norms suggested by Bardhan, Dandekar and Rath and Ashok Rudra. According to the first the percentage of rural population below the poverty line increased from 38% in 1960-61 to 54% in 1968-6915 and according to another estimate, from 23% to 40%.16 According to third estimate it rose from 59% to 60% during the same period.17

Despite the differences in these estimates all of them are indicative of the increasing mass poverty in our country along with the GNP. Thus, despite the relatively impressive 'growth' of the economy, poverty and unemployment situation in the country has only worsened. Poverty and unemployment were considered as the basic issue to be reckoned with within any strategy of national economic development in India. The basic problem arose from the firm belief based on the western concept of

16. V.M. Dandekar and N.K. Rath, Poverty in India, Indian School of Political Economy, 1991
development which is quantitative in content. This fallacy that once rapid economic growth is achieved the problems of poverty and unemployment will be automatically taken care of as a natural concomitant of the process of growth, has exploded. Global situation has responsible for changing emphasis on the objective and strategy for economic development. For example, during the 1950's and early 1960's the main theme of development efforts was the transfer of western type of technology—sometimes a little modified focusing, industrialized development. In the mid '60's interest switched to agricultural development as the main area. Similarly sometimes rural development is confused with agricultural development and such fallacious thinking has been impeding the whole process of clear thinking and specific priority in case of Indian planning. The prescriptions that are being offered for this dreaded disease can broadly be classified into three major categories. The first is the growth centred prescription, which is, by and large, an emulation of the western model which has been discussed above. The second prescription of development, the percolation theory prescription, which apparently appears to offer more desirable solution, is based on the assumption that the gains from development are not equitably distributed. The third prescription which is an amalgamation of the growth centred approach and the percolation approach has been in practice in India for quite some time, but unfortunately has not been able to bear significant results.

No doubt Indian economy had somewhat impressive records of growth during the past plan period, GNP has increased leading to
increase in per-capita income. The rate of gross capital formation rise from 14.3% of GNP during the 1st Five Year Plan to 23.2% during the 6th Plan. Production and food grains increased substantially—Despite these and similar records of growth measured in terms of several macro-economic variables, poverty and unemployment situation in the country has not improved, rather it has deteriorated, as estimated by economists in seventies.

All the prescriptions mentioned above are not at all a guarantee against worsening mass poverty and unemployment. It is true that objective of social justice and unemployment will be automatically taken care of as natural concomitant of the process of growth, has exploded. Global situation has responsible for changing emphasis on the objective and strategy for economic development. For example, during the 1950's and early 1960's the main theme of development efforts was the transfer of western type of technology—sometimes a little modified focusing, industrialized development. In the mid '1960's interest switched to agricultural development as the main area. Similarly sometimes rural development is confused with agricultural development and such fallacious thinking has been impeding the whole process of clear thinking and specific priority in case of Indian planning. The prescriptions that are being offered for this dreaded disease can broadly be classified into three major categories. The first is the growth centred prescription, which is, by and large, an emulation of the western model which has been discussed above. The second prescription of
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All the prescriptions mentioned above are not at all a guarantee against worsening mass poverty and unemployment. It is true that objective of social justice. The first and most desirable step was to merge several special programmes into a single unified programme. Consequently a new programme popularly known as Integrated Rural Development Programme (IRDP) was designed which gives special emphasis to the development of people belonging to the weaker sections such as small and marginal farmers, tenant and share-cropper?, landless
labourers, rural artisans, members of scheduled caste and tribe communities.

The IRDP was extended to all the blocks in the country in 1980, and was given due importance in 6th Five Year Plan with a very high hope. For the purpose certain norms have been fixed, in order to identify the rural poor. Rural poor are identified on the basis of a household survey conducted in all the blocks. The programme is intended to assist target groups to get gainful employment to improve their standard of living and lift them above the poverty line. Assistance is provided to families whose annual income does not exceed Rs. 3500/- per annum. Though all poor families with annual income of Rs. 3500/- or less are eligible for assistance under I.R.D.P. Families with the lowest income were to be assisted first. The degree of indebtedness of the family is also taken into consideration in identifying the rural poor or the target-group. Assistance may be provided to more than one member of a family so that combined income of all the members of the family is large enough to raise the whole family above the poverty line. The I.R.D.P. is subsidy and loan-oriented programme. The rate of subsidy varies from 25% in case of small farmers to 50% for scheduled tribes and to 33.33% for landless labourers. At the same time provision was made that at least 30% of the beneficiaries should be included from scheduled castes and scheduled tribes and that at least 30% of the investment must be made for the above the categories. The rationale behind this earmark is that scheduled castes and scheduled tribes are
the weakest segments of the Indian people. The I.R.D.P. appears to show rays of hope in alleviating trial poverty. This programme has been started with the basic objective of poverty eradication. It will be in the fitness of things to make a critical appraisal of the performance of I.R.D.P. in the Seventh plan also emphasis has been laid on poverty alleviation, with meager success achieved earlier, the task poses a greater challenges. On the basis of the identification of leakages in the programme, it can be seen how best the programme can be successful.

**APPROACHES TO POVERTY**

The different approaches to the problem of poverty in India and the developing countries can be classified into three broad categories: (i) structural, (ii) developmental, and (iii) egalitarian.

The focus in the structural approach is on the causes of poverty. Though the debate on the mode of production in Indian agriculture is still inconclusive, it is generally maintained that further expansion of the forces of production and transformation of production relations is checked by the existing property relations and the wrong strategies of agrarian development. The key, therefore, lies with radical change in property relations and the development and extension of class and scale neutral technologies and infrastructural facilities. This, of course, is to be done within the present political framework.

According to this approach, poor is not an economic class. Poverty is the common outcome of a variety of economic relationships
and circumstances. Hence categorisation of poor and the non-poor is operationally not relevant. The relevant question is about the cause of poverty, underemployment and low productivity, low wages, unequal exchange and, in general, exploitation. The remedies, therefore, cannot be in terms of the poor identified as such, but in the transformation of the production relations, which cause the phenomenon (Sen 1977; 246-54). Thus, the argument which stresses poverty as a structural process, does not accept the conventional poverty measures.

In contrast to this structural approach to poverty, the second approach can be termed as developmental approach. There are many variants of this approach too. However, there is one thing in common, the concern with historical and structural causes of poverty is minimal (Kurien 1977: 6-7). The existing socio-economic structure is, therefore, a datum. It is argued that since rapid rate of growth reduces inequalities and poverty after a time lag (Srinivasan and Bardhan 1974: 393-396), the strategy of development in India should also be that of maximization of the rate of growth of domestic product. This was, in fact, the strategy of development in the initial phase of planning in India but was reversed latter. This approach also does not need a concrete measure of poverty.

In the third approach, the focus is neither on the structural and institutional causes of poverty nor on the strategy of development and the choice of appropriate technologies but attention is paid to the problems of specific backward regions, sectors and groups of the poor.
This approach, therefore, attempts direct and immediate attack on poverty. At present, this seems to be the most popular approach. It does necessitate use of a poverty measure. The poverty measurement studies, besides measuring poverty, have also attempted to identify the characteristics of the poor and to find correlation of poverty with the hypothesized causative factors.

**METHODOLOGY ADOPTED AFTER 1991 IN INDIA IN POVERTY ESTIMATION**

Official estimates published by the planning commission suggest that India recorded one of the developing world's fastest reductions in poverty during the 1990s. However, there has been an active and at times acrimonious debate regarding the accuracy of the official numbers, as well as the accuracy of the various alternative estimated offered in plane of the official figures. According to official estimates, poverty fell from 36 per cent of the population in 1993-1994 to nearly 26 per cent at the end of the decade (1999-2000). These estimates are derived from successive rounds of the National Sample Survey (NSS), which has collected household level data for over 50 years. The NSS provides the basis for one of the longest continuous time series of poverty estimates in the world. However, concerns have been raised regarding the comparability of the most recent poverty estimates (based on the NSS 55th round, 1999-2000) with estimates based on earlier rounds of the NSS. Changes in the survey methodology used to calculate household welfare (measured in term of per capita consumption) have rendered the most recent official poverty estimates
not comparable to the earlier official estimates to recover comparability, or to use alternative sources of data to provide new and presumably better estimates.\(^{18}\)

According to T.N. Srinivasan “The National Statistical Commission should be commended for its broad, ‘fivefold’ remedial approach to the problems besetting India’s statistical system. But its failure to offer any methods for judging the adequacy, timeliness and accuracy of statistical data and to undertake cost-benefit analyses of its concomitant recommendations undermines the utility of its work. Without such information, how can the government decide how to apportion its scarce resources among competing priorities?”\(^ {19}\)

Angus Deaton on “adjusted Indian poverty estimates for 1999-2000 explains a method that can be used to adjust the NSS 55th round poverty estimates so as to make them comparable with earlier official estimates after presenting the adjusted head – count ratios for all –India and each of the large states, for both urban and rural sectors, the author turns to some broader issues about poverty monitoring in India,

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19. Ibid P 303
including those raised by the non-comparability of estimates that is his main topic but looking further to issues of future survey design and the choice of poverty lines.\textsuperscript{20}

Other methods followed

\begin{itemize}
  \item[a)\textsuperscript{2}]{HCR Computed using 2400}
  \item[b)]{The Severity of Deprivation using the FGT(2)}
  \item[c)]{Seven Day Income and 30 days income.}
  \item[d)]{Material deprivation}
  \item[e)]{Human Deprivation}
  \item[f)]{Vulnerability, Powerlessness, Exclusion, Social Identity}
  \item[g)]{Access to public goods and services.}
  \item[h)]{Non-availability social capital}
  \item[i)]{Link between caste and poverty}
  \item[j)]{Link between Gender and poverty}
\end{itemize}

VALERIE KOZEL, BARBARA PARKER have done a diagnostic of poverty in Uttarpradesh.\textsuperscript{21}

**MEASUREMENT OF POVERTY**

The problem of defining and measuring poverty has to be faced squarely for obtaining an understanding of not only the extent of poverty but also its nature without which it is impossible to devise...
effective policies. However, the measurement problem is not independent of the objectives of this particular study.

**The objectives of poverty analysis may be diverse. As for instance:**

(a) To estimate the incidence of poverty (i.e., the number of proportion of the population living in poverty).
(b) To identify the poor on the basis of a dividing-line (in terms of income, calorie intake, land owned, caste etc.).
(c) To calculate the magnitude of the poverty problem (e.g., the poverty gap), the income generation required or the transfer of income needed to bring all those who are under poverty above it.
(d) To analyse the characteristics of the poor (e.g. distribution of income or consumption among the poor).
(e) To study the phenomena causing poverty; market exploitation, non-market exploitation, non-exploitative reasons, etc.

The first four need a concept of poverty and a method of measurement of poverty (Ringen, 1985 : 99), while the last one deals with the question of political economy. Here, in this chapter, attention has been confined to the problem of measurement of poverty assuming that this is useful in analysing poverty. In Section II, the problem of conceptualizing and defining poverty is discussed and alternative measures of poverty are developed. The problem of preparing appropriate indicators of poverty are also dealt with in this section.
Stein Ringen (1985: 99-137) discusses two stages of measurement of poverty. In the first stage, measurement of poverty is defined in relation to minimum necessities: what is necessary to maintain physical health. In the second stage (Rowntree, 1901), poverty is defined in relation to the necessities of social efficiency.

Thus, the second stage poverty measurement defines poverty in terms of relative deprivation which, of course, is an aspect of the social situation of the poor. But a crucial question arises in this respect: Is income or any other single indicator (e.g. per capita daily calorie intake) an adequate indicator of social situation or welfare of the individuals? Obviously, it is not. Income is only one of the several conditions. Moreover, the connection between income and other components has been found to be low. (Titmus, 1962 Uusitalo, 1975; Ringen, 1985:102).

Ringen argues that the concept of poverty cannot be completely relativised — all persons in a poor country may be poor. Secondly, poverty expresses itself in how people live — people living in want. Only those people who have a low standard of living because they are not able to obtain a higher standard should be considered poor. Hence, poverty has dual aspects;

(i) Conspicuously low standard, and
(ii) Insufficient resources
This situation can be identified as accumulation of deprivation. (Ringen 1985: 105). Hence, poverty indicators must

(i) Be numerous in number

(ii) Make it possible to identify deprivation in objective terms, and

(iii) should reflect the resources side as well as the way of life side.

Since income in an inadequate index of welfare, other measures of poverty have to be devised (Hicks, 1982; Lipton, 1983: 4-5). One unidimensional measure is under nutrition. This will necessitate calculation of an adequate level of nutrition. An average person has to be conceptualised and his requirements found out. Generally, the proportion of the population unable to get this much nutrition is to be treated as poor.

After discussing the utilitarian, welfare and Rawlsian approaches, Sen (1983 : 367-369) suggests the basic capability approach to inequality and poverty. Lack of basic capacity of basic goods may be because of the shortage of resources per se or because of the inequitable distribution of resources which are adequate in supply. Lipton (1983 : 5, 83), therefore, distinguishes between primary poverty due to insufficient resources and secondary poverty which is due to inefficient allocation of resources.

As already pointed out, the concept of poverty arose with the notion of absolute deprivation — failure to provide basic requirements mostly defined in terms of nutritional norms by early observers like Booth (1889) and Rowntree (1901). The basic needs approach is an
extension of this approach (Streetan 1981). However, relative deprivation is also an essential ingredient of an understanding of poverty. It is suggested that since income is an inadequate measure and any other absolute measure would be arbitrary and static in nature we should drop absolute poverty and opt for relative poverty or relative deprivation. Townsend (1970, 1974), Runciman (1966) and Gutkind (1986) refer to two approaches to 'relative deprivation' or 'relative poverty': the "objective approach" of conditions of deprivation as given by Townsend (1974) and the 'subjective approach' of feelings of deprivation. Both are, of course, not mutually independent.

Relative deprivation is not the same as 'inequality'. The concept of relative deprivation involves a notion of a reference group, the selection of which poses problems. The more different the reference group, the closer is the notion of relative deprivation to inequality (Gutkind, 1986).

However, although poverty and inequality are related and associated issues, they are not identical. Economic inequality cannot capture all the issues (rights, entitlements, exploitation, norms, etc.) embodied in the notion of poverty. In fact, inequality is only one of the factors related to poverty. And, even today the concept of absolute poverty is obviously and depressingly relevant in the developing countries (Sen, 1980; Gutkind, 1986: 27). Inequality of income, which is used to measure relative poverty, can also be a supplementary indicator- It cannot substitute for absolute poverty measure, because, to quote Lipton, "inequality and poverty are different evils" (Lipton, 1983: 5). What is
required, therefore, is an amalgamation of both the absolute and relative considerations (UNO 1954; Sen 1980:3).

Gulkind (1986:28-29) conceptualises poverty as a condition which involves severe 'deprivation, intensified by associated adverse occurrences and usually, but not exclusively, associated with inadequate resources. The new concept embodies an element of inequality of income and wealth as well as inequality in opportunities and in access to different markets.

The concept of 'poverty space' can be used to quantify the concept of poverty. This involves the process of 'disaggregation' of the overall concept of poverty.

Different Measures of Poverty Thus, poverty cannot be treated as a unique category (Gulkind, 1986: 160-161). It can be defined in various ways. These reveal different aspects of poverty. There is no one-to-one correspondence between the alternatives. Poverty can thus be conceptualised as

- Poverty of resources or resource deprivation;
- Income insufficiency;
- Nutritional deficiency or nutritional deprivation or food inadequacy; and
- Poverty in terms of low quality of life.
In all the above four cases, poverty may be considered in absolute or relative terms. We, therefore, consider the following groups of indicators:

1. **RESOURCE DEPRIVATION**

   In ordinary parlance when one talks of the rich and the poor, one refers to wealthy and poor persons. Moreover, people earn their livelihood on the basis of either physical and financial capital or human capital. Of course, returns to these forms of capital depend on many factors. The most important factor in the case of human capital is the probability of getting employment. Hence, the following sub-sets of indicators would be used to reflect poverty in terms of resource deprivation:

   (i) Physical resource (Sand and other assets) deprivation;

   (ii) Human capital deprivation;

   (iii) Rate of unemployment; and

   (iv) Measures of inequality in the distribution of land and assets which depict relative poverty.

2. **INCOME INSUFFICIENCY**

   Income insufficiency can be considered to be a derivative of resource inadequacy. However, no perfect correlation between the two can be taken for granted. Of course, as against resources income is a flow variable. Income is the basis on which an adequate level of living can be obtained. However, data about income at regional level are not
available. Therefore, a proper proxy has to be used. The average per capita consumption expenditure (APE) of households as given by the National Sample Survey (NSS) is the variable chosen. It is also the best proxy for permanent income (Cramer, 1968) on which the consumption pattern is supposed to depend. However, it will be proper to take the real per capita expenditure instead of the nominal per capita expenditure. This is necessary in cross-section studies because there are inter-state differences in consumer prices. Conversion of APE to real income using price indicators has not been attempted here for two reasons: (1) We have not been able to compute appropriate price indices for 63 regions, and (2) it is more appropriate to express real expenditure in terms of calorie norm.

Since we have data about nominal average per capita expenditure (APE) and the expenditure required to attain a calorie norm of say 1920 (UPPL), the ratio of the two will at once give the average expenditure of the region. Thus,

$$RY = \frac{APE}{UPPL}$$

For example, for A.P. region-1 (Coastal), RY will be $39.82/34.25 = 1.1626$, since APE = Rs. 39.82 and UPPL = Rs. 34.25. This implies that the nominal APE in A.P. region-1 is just sufficient to provide the dietary energy requirement and other non-food items to 1.1626 persons. This measure abstracts APE from not only price differentials but also the differences in dietary habits and nutritive value of the different items of consumption. Measures of distribution of income/expenditure are used to represent relative poverty.
3. NUTRITIONAL INADEQUACY (FOOD INADEQUACY)

This can either be a food based poverty line (Greer and Thorbecke, 1986) or a food adequacy standard of living (Liplon, 1983). The former is defined as the minimum expenditure on food necessary to meet the required dietary allowance of calories, while eating the typical dietary composition of the household (Greer and Thorbecke, 1986: 116). The latter is defined as the total expenditure level (or income level) with which an individual, when left to himself, will meet the calorie need for an active and healthy life (Rao, Gupta and Dutta, 1985:29; Liplon, 1983;7).

In order to define a food adequacy standard (FAS), which is also a scalar measure, we have to define adequate food or a food norm. Food provides nutrition, calorie, protein, vitamin, etc., which are essential puns of a nutritive diet. However, in order to define a single-scalar poverty indicator, a single component of nutritive diet has to be chosen. This task is made easier because a calorie-adequate diet, especially in Indian conditions and eating habits, is also a protein-adequate diet, whereas the reverse is not always true (Sukhatme, 1977, Lipton, 1983; 8; N.I.N., 1976; McLarcn, 1974: 93). In contrast, vitamin inadequacy is unrelated with calorie intake (Berg, 1973). Hence, the calorie indicator is generally chosen as an indicator of food adequacy.

In 1955, FAG/WHO dietary energy requirement (DER) at 10°C or the average reference man was 3200 calorie per day and for an average
reference woman it was 2300 calorie (FAO, 1973, 2-31). These have subsequently been reduced several times.

Separate DERs for less developed countries have been prescribed. These are much lower for the less developed countries than the western countries because of differences in climate, weight, height and age-structure (Lipton, 1983:12-25). Nutrition requirements in terms of calorie are age, sex, and occupation specific and, as such, they are likely to vary sizeably between different segments of the population. The Nutrition Expert Group (NEG) has recommended some age-sex-occupation-specific norms. Using appropriate weighting diagram, the daily calorie requirements per person works out to an average around 2400 calories in rural areas and 2100 calories in urban areas. (Planning Commission, 1978-1983:36; Rao, Gupta and Dulta, 1985:30). The Research and Planning Division of ECAFE (1972) estimated the minimum requirement for a person in average health as 2500 calories and E protein units.

The assumption of the uniform norm of dietary energy requirement (DER) or norms of calorie requirement has bee objected to by many scholars. The main argument hinges on the very variety of items of food, the very widely different food habits, cooking methods and geoclimatic situations. Sukhatme objects to taking a, average nutritional norm for defining poverty because of inter-personal variability of nutritional needs and the existence of adaptive mechanisms in human

Hence, persons eating below or above the average DER are therefore, not necessarily under or over-nourished. Consequently classifying people as poor or undernourished in accordance with (lit average norm when, in fact, they have fully acquired their energy) requirements (below average) will create type I error, which is operationally more serious than type II error (of exclusion).

However, Sen reminds us (hat malnutrition can provide a basis for a standard of poverty without poverty being identified as the extent of malnutrition. For example, if 40 per cent of the population is below the poverty line what Sukhatme implies is that the statement is not equivalent to the statement that 40 per cent of the population is under-nourished. Still it is an important statement. It tells us that 40 per cent of the population fails to have incomes adequate for buying enough food items to meet average nutritional requirements. This is definitely an important information (Sen, 1980:4).

For reasons cited above Sukhatme suggests that the numbers at significant risk of under-nutrition equal, roughly, The numbers ingesting below 80 per cent of the average DER (Sukhatme, 1978, 1981; Liplon, 1983:35). The task force (Perspective Planning Division, 1979:7) defines a modest poverty line or reduced poverty line (Planning Commission, 1978:50; 1979:37, at 75 per cent of poverty line. In
contrast, the Perspective Planning Division (1962:13-14) had suggested that it should be raised as development goes apace.

Following Lipton and Sukhatme, those who cannot afford this norm, that is 80 per cent of DER level of caloric intake, are termed 'ultra poor' and those able to afford 80 per cent but not 100 per cent of this requirement as 'poor'. In our case the DERs are 2400 calories for the rural poor and 1920 (80% of 2400) for the rural ultra poor, respectively. We define the ultra poor poverty line and poverty line on the basis of these energy norms. As we have already seen, poverty line is defined as the per capita household expenditure level in which an individual, when left to him, will meet the caloric requirements. This expenditure, besides satisfying the minimum energy requirements (along with other nutritional requirements) also satisfies the minimum non-food needs. However, the minimum non-food requirements vary according to topography, climate, nature, type and intensity of economic activities, etc. One hypothesis is that a person who is able to obtain minimum dietary requirements with his or her income is ipso facto assumed to have satisfied the minimum non-food requirements also. Thus, the Planning Commission considers the vector of non-food items of poverty norm class as adequate without any examination.

As is clear from the above discussion, practical measurement of the nutritionally poor would require the nutritionally adequate food bundles of different groups.
The translation of minimum nutritional requirements into minimum food requirements depends on the choice of commodities by the individuals, which, of course, reflects consumer habits and preferences. Moreover, as Gulkind (1986:25) points out, the nutrient required can be seen as an 'input' in a physical, biological process (a production function) which produces health. However, the twin processes of transformation of consumption into nutrition and nutrition into health are not entirely clear. The ambiguity is revealed by nearly no correlation between the nutritionally defined poverty ratio and infant mortality rate of expectation of life. In fact, Kerala has got a very high proportion of nutritional deficiency; however, it has also got a very high expectation of life at birth. This implies that the physical and biological process of transformation of nutrition into health of the Keralaites is much more efficient than the inhabitants of other states. Thus, as has been pointed out repeatedly, the nutrition based poverty ratio may be an inadequate measure of the quality of life.

Lipton thinks that persons/households should spend at least 25 per cent of outlay on non-food requirements, which is the same as saying that not more than 80 per cent of the total outlay be spent on food items. This may be scaled down to 70 per cent if the relative prices of food items decline. Following Lipton, we also adopt a "two-80 per cent" classification of ultra poverty, i.e., the households who spend 80 per cent or more than 80 per cent of outlay on food, but still have below
80 per cent of energy requirements, are considered to be the ultra poor.

In fact, we calculate these two indicators separately.

Computation of Nutrition Based Indices of Poverty: Formula Used

Different indicators of poverty, ranging from simple percentages to highly complicated formulae, have been suggested from time to time. Complications arise because equity aspects are also considered. For this, certain axioms may have to be satisfied. Some of the widely used indicators are; (i) The Head-count Ratio, (ii) Poverty Gap, (iii) Sen's Index and (iv) the Lorenz Ratio.

Many experts have worked on Sen's index and modified it mostly by changing the normalisation rule or the weights.

Sen’s index and its variants satisfy the criteria (axioms) almost fully. However, these also do not satisfy the strong transfer axioms, and are discontinuous and indecomposable (Kundu, 1981). Kundu’s index is based on the coefficient of variation and Thiel index in the place of Gini Coefficient. (Kundu, 1981). Pal and Chakravarti (1985:11) suggest a decomposable index and Foster, Greer and Thorbecke (FGT) (1984) a number of decomposable severity indices. Ravillion and Huppi (1991) use the FGT class of measures. Jain (1987) suggests his own indicators, based on the relative distance weight approach to poverty measurement. However, Smith and Kundu (1983) have shown that it is impossible to have a poverty measure satisfying all axioms. In this situation it would be better to have several single-dimension measures of poverty, separating absolute and relative measures, rather than developing
composite indicators, so that different dimensions of poverty can be studied separately. Also, most of these complex poverty indicators are highly correlated with the simple head-count ratio (Panda, 1987). Hence, empirically there is nothing much to choose between the simple head-count ratio and the more complex indicators. Thus, the head-count ratio can be used to measure absolute nutritional poverty in most of the studies without losing much in precision. This is especially true in the context of the quality of Indian data. To insist on axiomatic refinements in the context of a poor data base will be a luxury in the Indian situation. In fact, concentration of effort on axiomatic refinements will only divert attention from the basic questions regarding poverty (Dandekar, 1981:1241).

On putting Jain's poverty measures to correlation analysis, it has been found that the various inequality measures like the Gini Coefficient (G), Within Group Inequality (GL) and Normative Inequality measures suggested by Jain (1987) are also highly inter-correlated. However, their correlation with the poverty measures is very weak. Again, the average consumption of population (PU) does not exhibit high correlation with either of the two sets of variables (inequality and poverty). It is, however, interesting to note that on the one hand, states having high per capita expenditure exhibit low poverty and, on the other, they have large inequalities.

Thus, the measure of inequality, poverty and average expenditure represent different aspects of poverty. Hence, in place of the multitude
of nutrition-based indicators of poverty, suggested by Sen, Kakwani, Jain and others, it is suggested that only three indicators of poverty will suffice in most of the studies:

(i) The head-count ratio which is the easiest to compute, comprehend and apply in policy-making. Lipton takes the Two-Eighty per cent criterion — The head-count ratio in conjunction with per cent expenditure on food;
(ii) The Lorenz ratio for measuring inequality; and
(iii) The per capita consumption expenditure.

However, in order to test whether the above results still hold in the case of regions, we have computed most of these measures. This will also help us to test the sensitivity of poverty measurements to the choice of norms and formulae.

4. LOW QUALITY OF LIFE (QOL)

A measure of the overall basic needs of social goods satisfaction is the physical quality of life index as suggested by Morris (1979). Morris computed the composite index by giving equal weights to life expectancy at age 1, the survival chances from birth to age 1, and adult literacy rate. In our case, in order to correlate with poverty these indicators have to be reversed. He found great divergence in this indicator and per capita income in most Indian states. However, Larson and Wilford (1980) found that QOL is systematically related to per capita income. A.K. Sen warns against too narrow and too final a view of these results.
Quality of life cannot be taken to be a substitute for income. Instead, he suggests calculating the expected life-time income (Gen, 1980:6). In our analysis, we take QOL along with other indicators of poverty separately.

In poverty analysis, it is useful to be concerned with results rather than inputs or supplies. The physical quality of life (QOL) index has the merit of measuring results rather than inputs. Indicators of many conditions are used for constructing a measure of quality of life — individual status, technological development, individual equality, living conditions, economic status, agricultural production, educational development, etc. They consist of subjective and objective indicators. Such lists are never exhaustive enough to satisfy all uses, and they mix resources, causes and results. There is also the problem of indicator overload.

In this analysis, data permitting, it is attempted to keep close to QOL as defined by Morris. Confined to the 'end of process of development' measures, four indicators to define quality of life (4.1 to 4.4 in the next Section) are taken.

THE POVERTY GAP INDEX

The poverty gap index is defined by the mean distance below the poverty line expressed as a proportion of that line (where the mean is formed over the entire population, counting the non-poor as having zero poverty gap). The poverty gap thus measures the transfer that would bring the income of every poor person exactly upto the poverty line, thereby eliminating the poverty. In this way the poverty gap reflects the
depth of poverty, as well as its incidence. However, the poverty gap index is insensitive to the extent of inequality among the poor. If income is transferred from a poor person to someone who is poorer, the poverty gap index will not change. This limitation notwithstanding, the poverty gap measure is definitely superior to simple head count index and it is this reason why of late it is in common use.

Let us now consider estimates of poverty in terms of poverty gap index. Ozler, Datt and Ravallion have compiled these estimates for the Poverty and Human Resources Division of the World Bank. These estimates given in Table 3 clearly indicate that from 1950-51 to 1973-74 there was no long term time trend but thereafter there was a steady decline in the poverty gap index till 1989-90. In the early 1990s this trend was reversed and in July 1995 - December 1997 the poverty gap index was 8.21 for rural population and 7.27 for the urban population.

**THE SQUARED POVERTY GAP INDEX**

The squared poverty gap index is defined as the mean of the squared proportionate poverty gaps. This measure reflects the severity of poverty as it is sensitive to inequality amongst the poor. In this sense it is without doubt the most appropriate measure of income poverty.

Estimates of the squared poverty gaps provided by Ozler, Datt and Ravallion clearly show that until 1973-74 the severity of poverty had not declined as compared to 1950-51. However, since 1973-74 there is a sharp decline in squared poverty gap index for both urban and rural population. For rural population the squared poverty gap
index in 1997 was 2.76 as against 7.13 in 1973-74. Similarly for urban population the squared poverty index declined from 5.22 in 1973-74 to 2.73 in 1997.

CLASS BASE OF THE POOR

In an egalitarian society removal of poverty has to be accorded a high priority. But before any government decides its policy measures to solve the poverty problem, it must identify the poor. In India, unfortunately no serious attempt has been made by the governments in this direction. Using the NSS data, Minhas, Bardhan, Dandekar and Rath and a few others have attempted to identify the poor. According to their findings, a large bulk of the poor belongs to;

(i) agricultural labour households without landholdings which form about 60 per cent of all agricultural labour households;

(ii) agricultural labour households with very small holdings which constitute about 40 percent all agricultural labour households

(iii) non-agricultural rural labour households without landholdings including village artisans progressively losing their traditional employment; and

(iv) small land operators, with cultivating holdings of less than 2 hectares, and particularly less than 1 hectare.

As regards the urban poor, Dandekar and Rath state that "The urban poor are only an overflow of the rural poor, into the urban area. Fundamentally, they belong to the same class as the rural poor."
However, as they live long enough in urban poverty, they acquire characteristics of their own. Little is known of their life and labour in the growing cities.

**HUMAN POVERTY**

Some development economists have argued in recent years that although income focuses on an important dimension of poverty, it gives only a partial picture of the many ways human lives can be blighted. As noted by the *Human Development Report 1997*, "Someone can enjoy good health and live but be illiterate and thus cut off from learning, from communication and from interactions with others. Another person may be literate and quite well educated but prone to premature death because of epidemiological characteristics or physical disposition. Yet a third way be excluded from participating in the important decision-making processes affecting his/her life." As is clear, the deprivation of none of these people can be fully captured by the level of their income. To get a complete idea of poverty, one has thus to enlarge the canvas of study and talk in terms of deprivations and not merely income as it is in the deprivation of the lives that people can lead that poverty manifests itself. *Poverty is thus a denial of choices and opportunities for living a tolerable life.* This is the concept of human poverty. It means that opportunities and choices most basic to human development are denied — to lead a long, healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-respect and the respect of others.
HUMAN POVERTY INDEX

*Human Development Report* 7997 introduces a human poverty index in an attempt to bring together in a composite index the different features of deprivation in the quality of life to arrive at an aggregate judgment on the extent of poverty in a community. The *Report* acknowledges that human poverty is larger than any particular measure, including the human poverty index. It includes many aspects like lack of freedom, inability to participate in decision making, lack of personal security, inability to participate in the life of a community and threats to sustainability and intergenerational equity etc. which cannot be measured. However, given the fact that the issues of poverty in the developing countries involve hunger, illiteracy, epidemics and the lack of health services or safe water, the human poverty index constructed by the *Human Development Report* focuses on the deprivation in the following three elements of human life — longevity, knowledge, and a decent standard of living.

1. The first deprivation relates to survival — the vulnerability to death at a relatively early age — and is represented in the human poverty index by the percentage of people expected to die before age 40.

2. The second dimension relates to knowledge — being excluded from the world of reading and communication — and is measured by the percentage of adults who are illiterate.
The third aspect relates to a decent standard of living, in particular, overall economic provisioning. This is represented by a composite of two variables — the percentage of population not using improved water resources, and the percentage of children under five who are underweight.

**Human Poverty in India**

An idea about human poverty in India can be had from data presented below:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Deprivation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Survival deprivation People not expected to survive to age 40 (%) 1995-2000</td>
<td>16.7</td>
</tr>
<tr>
<td>2</td>
<td>Deprivation in education and knowledge</td>
<td>43.5</td>
</tr>
<tr>
<td></td>
<td>Adult illiteracy rate (%) 1999</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Deprivation in a decent standard of living</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>3.1 Population not using improved water resources (%) 1999</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>3.2 Underweight children under age five (%) 1995-2000</td>
<td>53</td>
</tr>
</tbody>
</table>


Table 6 shows that the human poverty in India is quite high. One major indicator of human poverty is a short life. Dying before age 40
represents a severe deprivation. In India, nearly one sixth of the people are not expected to survive to this age. This is four times the proportion in industrial countries. Even in China, Sri Lanka, Malaysia, Argentina, Cuba and Chile less than 8 per cent of the people are expected to die before reaching age 40 as compared with 16-7 per cent in India.

In India, adult illiteracy rate was as high as 43.5 per cent in 1999. This was much higher than the adult illiteracy rate in many developing countries. In Viet Nam, Sri Lanka and Thailand adult illiteracy rates are below 10 per cent.

Deprivation in economic provisioning is also high in India. In recent years though accessibility of people to improved water has somewhat improved, more than half of the children under age five still remain underweight.

The Human Development Report 200[ bus computed human poverty index for 90 developing countries- India’s rank in terms of this index is as low as 55. This clearly reflects this country’s unsatisfactory performance in alleviating human poverty. In absolute terms since the human poverty index is as high as 34.3 per cent. the human poverty is widespread. Some poor countries like China and Sri Lanka, have succeeded in alleviating human poverty to a great extent. India should follow these examples and orient its policies accordingly. If it depends entirely on economic growth for human poverty alleviation, it will take a much longer period to register any significant progress in this field.
RURAL POVERTY

Most people will agree with Dandekar and Rath that the urban poor in India are largely the overflow of the rural poor into the urban areas. These migrants from the rural areas to cities could have crossed the poverty line, had industrial development in this country been sufficiently rapid to absorb them adequately in the modern manufacturing industries. But this was not to be. Some of the urban poor have lived long enough in cities and have acquired distinct characteristics. However, the major causes of poverty in India are to be found in the socio-economic structure prevailing in the countryside. It is this reason why major policy measures to remove poverty have been undertaken with a view to tackle rural poverty.

In India, rural poverty largely emanates from the semi-feudal relations of production in the agriculture. The land reform measures which were undertaken after Independence did not make substantial changes in the agrarian relations. Hence almost all agricultural labour households and a large proportion of small and marginal farmers and landless non-agricultural rural labour households are poor. Often rural poverty is attributed to rapid population growth. It is asserted that rapid population growth puts pressure on the land base and as a consequence the real per capita income of labour falls "by the decline of labour productivity and employment as well as by the increase in food prices. This argument in the Indian context is substantially correct.
However, in India's existing socio-political system one can hope in the short-term neither for a radical change in the agrarian relations nor for a considerable decline in the rate of population growth. Keeping in view these limitations it is not altogether surprising that two related dynamic forces—productivity augmenting technological change in agriculture and changing food prices have been in focus in the current discussion on rural poverty. Keith Griffin has argued on the basis of empirical evidence that in an agrarian system characterized by concentration of agricultural holdings and unequal access to finance and inputs such as fertilizer the new input-intensive technology not only widens income disparities but also results in an increase in the proportion of the people in extreme poverty.

John W. Mellor holds a contrasting view. According to him, the new technology reduces the cost of food production and thereby lowers down the food prices and increases the demand for labour. Because food is the major consumption item for the poor, and because employment is the principal source of their income, the effects of the new technology are highly favourable to the poor. Mellor's viewpoint gels support from Dharm Narain's work also. Dharm Narain has used long-term data from India to show that increased agricultural production and lower prices at food grains tend to reduce poverty. His findings make a case for introducing cost reducing technology in agriculture.

A situation in which a higher incidence of poverty is associated with the introduction of cost reducing new technology cannot be
completely ruled out. The introduction of new technology is sometimes associated with past levels of intense poverty even while it causes a reduction in such poverty. In regions where non-farm employment is not growing rapidly, population growth tends to neutralize the favourable effects of new technology. According to Mellor, in such a situation an extraordinarily rapid change is needed to overbalance normal population growth, in India, for various reasons acceleration in the pace of technological change in agriculture in different regions may not be possible. Therefore, under the existing circumstances emphasis has to be on diversifying the rural economy through the encouragement of allied industries—animal husbandry, forestry and so on. Further, in the future rural industrialization has to be provided much higher priority than what it received in the past,

POVERTY AND TRICKLE DOWN IN THE RURAL SECTOR

The trickle down hypothesis in the simplest form states that rapid growth of per capita income will be associated with a reduction in poverty. In the context of agricultural development in India, the trickle-down theory has been interpreted to suggest that growth in the agricultural output without radical institutional reform will reduce the incidence of poverty. Montek S. Ahluwalia has argued that in India trickle-down mechanism exists and therefore a rise in agricultural production and income levels per head would lead to some decline in rural poverty- This argument assumes that the distribution of income has over time remained constant and there were no adverse terms of trade effects on agriculture." Ahluwalia, on the
basis of available empirical evidence, is in no position to say that trickle down has actually worked. He slates, "it is also true that growth was not fast enough to achieve the desired reduction in poverty over the period as a whole. Real agricultural income, measured in terms of net domestic product (NDP) in agriculture, grew about 2 per cent per year from 1956-57 to 1977-78, which was slightly faster than rural population. As a result, agricultural NDP per head of the rural population showed no significant trend. Keeping in view these faces T.N. Srinivasan has asserted that there simply was not enough growth for trickle-down mechanism to make any significant impact on poverty. However, Ahluwalia's work is comforting for those who find radical institutional changes infeasible or politically disturbing. These persons suggest that if India could step up the rate of agricultural growth by revising its development strategy, the trickle-down mechanism will work and benefits of growth will flow adequately to the poor.

The potential for trickle down has, however, been challenged by a number of economists. It has been argued that agricultural expansion might have had some links with income generation for the poor up to the mid-1960s, which increased use of labour and thus benefited the poor. Agricultural growth over the last three decades has been mainly the result of the new technology which brought about various changes in the rural economy to the disadvantage of the underprivileged limiting the downward flow of benefits. Pranab K. Bardhan has tried to explain why the new strategy of agricultural growth in India counteracted the forces which lend to improve the incomes of agricultural labourers and
small farmers, who constitute the bulk of rural poor. He is of the view that introduction of new technology even immiserized some people. Bardlian has listed the following mechanism whereby 'trickle down' effects were prevented since the mid-1960s:

1. The adoption of labour-displacing machinery immiserized a section of wage labourers.

2. The increased profitability of self-cultivation by large landlords led to eviction of small tenants.

3. The increased dependence of agriculture on purchased inputs and privately managed irrigation drove resource less small farmers out of cultivation. These displaced farmers over time swelled the ranks of agricultural labour.

4. The emergence of the class of new rural rich after the green revolution caused a shift in the demand pattern away from local handicrafts and services and this led to the impoverishment of the village artisan.

5. Rapid agricultural growth in selected areas induced immigration of agricultural labour from backward areas.

6. The increased use of pumpsets by richer farmers has resulted in some areas in a drop in water tables and, as a result, traditional lift irrigation technology used by poorer farmers has become less effective. Further, the large farmer is no longer interested in the maintenance of old irrigation channels and the small farmers alone are not in a position to mobilise adequate resources for this purpose.
7. The new technology has brought about a decline in the participation of women in the agricultural workforce and this has in most cases caused a decline in the earnings of the relatively poor households.

8. The increased political bargaining power of the rural rich has resulted in higher administered prices of food grains while wages of agricultural labourers have shown a tendency to lag behind the price rises.

Bardhan admits that all the mechanisms listed above do not always operate with equal force and even when they are operative they do not make a case against new technology as such. His intention is only to underline the fact that an attempt to introduce new technology in agriculture without making radical reforms in the institutional set up will not result in any improvement in the condition of the poor.

Bardhan has argued that there has been some growth in real income per capita in agriculture in some States, such as Punjab and Haryana. But the incidence of poverty in these States has not decreased much. This evidence in his opinion contradicts the trickle-down hypothesis. Though Montek S, Ahluwia finds it difficult to agree with those who challenge the existence of trickle-down mechanisms in India, he has also not been in favour of trickle-down strategies to the exclusion of other policies directly aimed at helping the poor. He states, "The need for devising strategic strategies of growth to ensure adequate flows of benefits to the poor, or more modestly, for supplementing the general strategy, of raising agricultural production with more target-oriented
programmes aimed at the weaker sections, remains urgent. Trickle-down processes alone would probably take an inordinately long time.

During the liberalisation decade of the 1990s the government policy of drastic reduction in development expenditure in agriculture lowered down the rites of agricultural growth to below 2 per cent per year. Thus by Ahluwalia's own logic, there must not have been any trickle down and thus no poverty reduction. S.P. Gupta's estimates of incidence of poverty for the 1990s provide incontrovertible evidence to support this conclusion. Results obtained from the 55th round of NSSO do not disprove this conclusion because as already slated in this chapter the estimates of poverty based on the 55th round are not comparable with the earlier estimates due to significant changes in the survey methodology.

**POVERTY ALLEVIATION PROGRAMMES**

**The Earlier Phase — Ad hocist Approach**

The strategy of direct assault on poverty through rural development and rural employment programmes was first adopted in the 1970s. With the Fifth Plan, poverty alleviation came to be accepted as one of the principal objectives of economic planning in this country. During the 1970s a number of special programmes for the rural poor were undertaken of which the important ones were: Small Farmers' Development Agency (SFDA), Marginal Farmers' and Agricultural Labourers Development Agency (MFAL), Drought-Prone Areas Programme (DPAP), Crash Scheme for Rural Employment (CSRE). Pilot
Intensive Rural Employment Project (PIREP) and Food for Work Programme (FWP). None of these programmes comprehensively covered the whole country, though in certain parts of the country some of these programmes operated simultaneously for the same target groups. Apart from this territorial overlap, the major limitation of these programmes was that they were reduced to mere subsidy-giving programmes, lacking any planned approach to enable the rural poor achieve a higher level of income. The element of ad hocism in these programmes further reduced their effectiveness from the point of view of poverty alleviation. Hence the need was felt for undertaking programmes which were not only far more comprehensive in coverage but could also make a direct assault on rural poverty.

The Latter Phase — Comprehensive Programmes

The Integrated Rural Development Programme (IRDP), the National Rural Employment Programme (NREP) and the Rural Landless Employment Guarantee Programme (RLEGP) were conceived keeping the objective of poverty alleviation in view. The IRDP was initially started in 1978-79 in 2,300 development blocks as a programme of total development. In the Sixth Plan, the IRDP was extended to the entire country. The NREP also commenced at the same lime as part of the Sixth Plan and aimed at helping that segment of population which depended largely on wage employment and had virtually no source of income during the lean agricultural period. The RLEGP was launched on August 15, with the objective of expanding the employment opportunities for the rural landless. However, with a view to making the
implementation of these wage employment programmes more effective, NREP and RLEGP were merged into a single rural employment programme since April 1, 1989. The merged programme was named Jawahar Rozgar YoJana (JRY).

The IRDP conceived as anti-poverty programme aimed at helping the small and marginal farmers, landless labourers and artisans. It was thought by the planners that these people were poor because they possessed neither any productive assets nor any special skill. Therefore, the IRDP was designed to help the poor by creating new assets for them. These assets would include sources of irrigation, bullocks and implements besides inputs like seeds and fertilizers for farming, animals for dairy and other animal husbandry activities and tools and training for cottage industries and handicrafts. The basic strategy was self-employment of the poor with the help of these assets so that they manage to earn enough to rise above the poverty line. The skill endorsement aspect was covered under the Training of Youth for Self-Employment (TRYSEM). The Programme Evaluation Organisation of the Planning Commission (PEO), the RBI, the NABARD and the Institute for Financial Management evaluated the performance of the IRDP at different points of time. The general conclusion that emerges from these studies is that the IRDP was not very effective as a poverty alleviation measure. However, it has now been restructured and renamed as Swarnajayanti Gram Swarozgar Yojana (SGSY). Moreover, certain allied programmes including TRYSEM have been merged into it.
These poverty alleviation programmes suffered from various specific shortcomings which in Sandeep Bagchee's opinion were basically the result of "not taking into account the complexities of the environment, of having multiple and conflicting objectives instead of simplifying them by focusing on a single operational goal and designing a suitable and viable strategy on this basis.

At present special programmes for employment generation are being implemented both in rural and urban areas for the purpose of poverty alleviation. The programmes for the rural poor include Swarnajayanti Gram Swarozgar Yojana (SGSY) and Jawahar Gram Samridhi Yojana (JGSY). Recently a new scheme known as Employment Assurance Scheme (EAS) has been undertaken, it is now being implemented in 2,475 backward blocks in which the revamped Public Distribution System is in operation. The scheme aims at providing 100 days of unskilled manual work to the rural poor who seek employment.

The Nehru Rozgar Yojana (NRY) was launched in October 1989 for the benefit of the urban poor. It was merged into the Swarnajayanti Shahari Rozgar Yojana in 1997-98. Sampurna Gramin Rozgar Yojna (SGRY) was launched in September 2001. It aims at providing wage employment in rural areas as also food security.