

Module: India and its Poverty

Chapter 1 : India and its Poverty

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Chapter I

India and its Poverty

A. Introduction

Modern India has over 1 billion people. Every sixth person on this Earth is Indian. It is one of the ten most industrialized countries in the world. India can proudly show space programs, yet it remains one of the poor regions of the world, where half of the population live under existence minimum. India is called the biggest democracy in the world. There are debt slaves that work dozens of years to pay for ridiculously small loans and there is an enormous poverty in the major cities, side by side with a modern society and all its richness.

It is a country with a glorious past, with great achievements on the field of religion, culture and art. Outstanding literature has been created, with epics like Mahabarahta and Ramayana, religious treasures like the Upanishads and Bhagavadgita. The geography of the country is as diverse as it is impressive, from the Himalayan mountain range in the far North, to the Southern-most coastline.

India could be described as one nation, with several civilisations, living on different evolutionary stages, side by side. The government publicly acknowledges 17 different Indian languages for dealing with public affairs and each language have its own unique cultural background as well as written language. It is easy to criticize the poverty of such an apparently rich country, but we should not underestimate the problems of the great diversities that the country harbours, as well as the historical factors of everything from wars to colonialism.

Travelling in India immediately makes one confront the poverty of the country. In cities like Calcutta and Bombay the shantytowns are immense, as is problems with poverty. People are basically starving in many areas, or

desperately trying to survive, and in its backwater crime, prostitution, corruption, begging and misery follows. India as a nation is rather self sufficient when it comes to agriculture, but at the same time lousy at distributing the food.

B. Understanding Poverty

Poverty has been described as a situation of “pronounced deprivation in well being” and being poor as “to be hungry, to lack shelter and clothing, to be sick and not cared for, to be illiterate and not schooled. Poor people are particularly vulnerable to adverse events outside their control. They are often treated badly by institutions of the state and society and excluded from voice and power in those institutions”.

Lack of access to resources or assetlessness is a unifying characteristic of poverty in all its manifestations. The poor lack ownership of or access to assets such as land, water, forest, dwelling units, credit, literacy, longevity, voice and capital-both physical and social.

Those who are severely below the poverty line are largely involved in subsistence type activities for which they get exploitatively poor returns despite suffering extreme physical hardship and undertaking grave risks so as to earn a meagre income. Since earnings are below even the margins of existence, expenditure and survival needs exceed income. This often results in the need to borrow small amounts of money at usurious interest rates of as much as 120% per annum. When borrowing is not possible, hunger is suffered. Their inability to change the power relationships results in scarcely available common resources (such as even drinking water) or public funds meant for poverty alleviation being misappropriated and diverted through manipulation by the locally powerful or corrupt. Since there are no mechanisms for grievance redressal this could result in social tension, despair or a combination thereof.

The poor can be classified into two sub groups - those who are poor over an extended duration or chronically poor and those who are transiently poor. Chronic poverty is further classified as – severe poverty, extended duration poverty and multidimensional poverty.

Severe poverty is viewed in three ways:

- i) Those who are chronically or severely below the poverty line or with incomes that are 75% of the poverty line or less; and
- ii) Those suffering hunger or not getting even two square meals a day as an extreme form of deprivation.
- iii) Inability to absorb the impact of shocks can also lead to extreme poverty, starvation and suicide.

The chronically poor are likely to suffer deprivation in many ways. Poverty is the sum total of a multiplicity of factors that include not just income and calorie intake but also access to land and credit, nutrition, health and longevity, literacy and education and safe drinking water, sanitation and other infrastructural facilities.

C. Poverty Line

There are poor societies and rich societies. Within a given society also, there are poor people and rich people. Governments all over the world use many criteria to identify the poor so that they can be given special attention that may lead to improvement in their livelihood status.

Poverty is normally defined with respect to poverty line. But what is the poverty line and how is it fixed?

Poverty line is a cut-off point on the line of distribution, which divides the population as poor and non-poor. For simplicity, we consider distribution of income. People with income below poverty line are poor and people with income above poverty line are non-poor. Suppose we are considering distribution of income per month or per year. Suppose there are ten persons with income 10, 17, 23, 30, 40, 50, 60, 70, 80, 90 units (Rupees, Hundreds of Rupees or Thousands of Rupees). Further, suppose, poverty line is 50 units. Obviously, five persons are below poverty line. In other words, 50 per cent people are below poverty line. We shall see that this measure of poverty, percentage of people below poverty line, is known as *head count ratio*. But how do we fix this number, which is known as poverty line? Before we try to answer this question, let us see the implications of fixing a very high or very low poverty line.

High/Low Poverty Line

People often argue that our poverty line is too low and that a particular poverty line tells us that more than 90 per cent of people in India are actually poor. There are others who argue that the poverty lines could be fixed at a particular level by persons who are interested in showing a high proportion of people as poor so that they go on formulating and implementing poverty alleviating programmes and keep themselves engaged. Let us understand the implications of these propositions.

Suppose, for the example given above poverty line is 100 units, then everybody is poor and everybody is in queue for assistance. Wherefrom do you get resources (money) to give assistance? You have to wait and see that people grow out of poverty on their own, if they can. The same will be the case when there are too few on the other side of the poverty line. On the other hand, if poverty line is just 5 units, then everybody is above poverty line and poverty is not an issue as no one or very few people deserve assistance. They are very few poor simply because we have deliberately fixed a very low poverty line.

Therefore, neither high nor low poverty line is desirable; it has to be reasonable from the feasibility of policy schemes. It should have some relationship with the capacity of the nation, which may roughly be taken as the per capita income.

Poverty Line in Terms of Consumption or Income

We have already pointed out that many criteria including income and consumption are used to define poverty line. Among them, income is the most comprehensive criterion. Income is suggested to be a better measure as it is considered as potential consumption and permits long-term choice through saving. But income is likely to fluctuate in larger degree than consumption. Consumption is said to be steadier as it is maintained through accumulation or spending of savings if income were to fluctuate. We may note that the difference between income and consumption is called saving. Saving may be positive or negative. Negative saving is also known as dis-saving.

In countries where data on income distribution is not available, data on consumption distribution is accepted as proxy for income distribution. India

is one such country. It, however, means that the people on poverty line are considered neither savers nor dissevers -- neither lenders nor borrowers! In India, we have another reason to consider consumption, which is that we have a long series of consumption data collected through sampling surveys conducted by the National Sample Survey Organisation (NSSO).

Fixing Poverty Line

How is the poverty line fixed then? It has been fixed in various ways. Consumption of food is considered the most important as food is essential for life. Fix the diet with minimum quantities of essential items. Calculate the cost of this diet. Increase this food cost, say by 50 per cent, to allow consumption of other (nonfood) items such as clothing, shelter, lighting, etc. for we know that nobody, in a civilised society, lives by food alone. You may like to add certain expenditure on medical care if it is not provided free. This is consumption expenditure line of poverty, which takes into account food and non-food items both.

Some would suggest that such calculations should be made at household level as food, though consumed individually, is cooked for all members of the family and consumption of many other items is also shared. Dividing the household poverty line by the size of the household, per capita household poverty line can be obtained. You may then like to add expenditure on education of children also. Some may like to give some allowance for wastages. Of course, we preserve the right to educate people on all such matters as wastage.

Dollar Poverty Lines

International organizations often refer to \$1 a day and \$2 a day poverty lines for some estimates they wish to make for the world as a whole. People with income below \$2 are considered poor and people with income below \$1, very poor.

If per capita income of a rich country in terms of dollars at exchange rate comes out to be \$30,000 per annum, there is no problem for them to consider the poverty line at \$350 or \$700 a year. We in developing countries very often refer to such poverty lines without understanding its implications. If everyone of us were to live at poverty line level of \$1 a day, total national income required would be Rs 19,00,000 crore at present exchange rate,

which may be just around the total national income! Think of \$2 a day poverty line, after complete redistribution, we shall all be poor!

Present Practice of Fixing Poverty Line in India

Some people find the present method of fixation of poverty line by the Government quite confusing. It requires some patience to understand. We shall provide here a very simplified account of the actual procedure. It has already been noted that we settle for private consumption expenditure instead of income, partly because data on income distribution is not available.

Procedure

First, we confine ourselves with measuring private final consumption expenditure, which is neither consumption expenditure on food alone nor full-blown income. We do not include public consumption expenditure either. Nobody actually buys clothes or burns lights only after having prescribed food; they buy food and non-food items almost simultaneously. Those who smoke *beedi*, for example, do not necessarily do so only after they had food worth so much of calories. And we treat people as people and allow them to choose their own pattern of expenditure.

Second, for each of the group of people, classified according to household consumption *per capita*, we write down quantities consumed of food and nonfood items in a tabular form.

Third, using calorie content of a unit of a particular food item, we can calculate the total calories consumed per capita.

Fourth, starting from the lowest expenditure class, we move upward and locate the consumption expenditure class in which case, the recommended calorie needs are satisfied. As the quantities written against the consumption classes are average quantities, we can associate these calories with the mid-values of the respective consumption classes.

Dadabhai Naoroji and Poverty Line

Dadabhai Naoroji, the grand old man of India, was perhaps the first to employ the idea of poverty line. He used the menu for a prisoner and used

appropriate prevailing prices to arrive at what may be called 'jail cost of living'.

However, only adults stay in jail whereas in an actual society, there are children too. He therefore appropriately adjusted this cost of living to arrive at poverty line. For this adjustment, he assumed that one-third population consisted of children and half of whom consumed very little and the other half of whom consumed half of the adult diet.

Thus, the weighted average of consumption of the three segments gives the average poverty line, which comes out to be three-fourths of the adult jail cost of living. You can see from below how the factor of three-fourths can be arrived.

$$(1/6)(Nil) + (1/6) (Half) + (2/3)(Full) = (3/4) (Full)$$

Calorie Norms

But how are the calorie needs fixed? Some are children, some are adults and some are old. Some are men and some are women. Some are sedentary workers and some do hard work, even if we ignore climatic differences of the areas of residence. Nutritionists, when asked to suggest the minimum amount of calories that people should consume in order to remain fit for life and to carry on normal productive activity they perform, recommend different amounts of calories for different groups of people. Groups are usually defined according to age, sex and activity. Our nutritionists categorize population into sixteen categories defined by age, sex and activity, and recommended minimum calories varying from 300 calories for children below 1 year of either sex to 3600 calories for young man engaged in heavy work.

Population Composition

When the first attempt was made to estimate the poverty line in the 1970's, the population data provided by census 1971 was used. To start with, the whole population was split and grouped into 16 categories. For example, female non-workers in urban areas are around 23 per cent of total urban population whereas males working in rural areas constitute 22 per cent of total rural population. This is estimated for all 16 categories of people, separately for rural areas and urban areas.

Average Calorie Norms for Rural and Urban Areas

Multiplying calorie requirement of a certain group by its proportion in the population and adding all such products, we get the average calorie requirement of the population. This exercise was made separately for rural areas and compared to persons living in urban areas a greater proportion of these who engaged in heavy work were found in rural areas. As a result, average requirements for rural and urban person was found to be 2435 calories and 2095 calories respectively, which are approximated to 2400 and 2100 calories and which are reported in most of the writings. If population composition were to change, these average calorie requirements would also change. But this change would be nominal.

Thus, in India, *poverty line is the level of private consumption expenditure, which ensures a food basket that would supply the required amount of calories*. It should be noted that it is not just the cost of food items giving the prescribed calories. People's normal purchase is accepted and expenditure at which people buy food items in such amounts, besides other items, that ensures the required amount of calories, is accepted as poverty line. The required amount of calories calculated in this way is the minimum amount. The people are allowed to enjoy other items in such amounts as they choose under the circumstances.

At the time of the official exercise, survey of consumption expenditure carried out by the NSS for the year 1973-74 was available. The consumption survey data is tabulated by per capita household consumption expenditure. Against a class-interval of per capita household consumption expenditure, items of consumption by amount are written down. Therefore, for an interval, one can calculate the amount of calories if we know the number of calories that consumption of a unit of certain food item provides to human beings. The required amount of calories would coincide with one of the class-interval or will fall between two intervals. Using inverse interpolation, one can find with ease the amount of consumption expenditure at which minimum calorie requirement is met. This is poverty line. Rural poverty line was found to be Rs 49.09 and urban poverty line, Rs 56.64 per month at 1973-74 prices.

D. Causes of poverty in India

The major causes for poverty have been:

- high population growth rate
- high Illiteracy (about 35% of population)
- unemployment and under-employment
- protectionist policies pursued till 1991 that prevented high foreign investment and
- corruption in government and bureaucracy

Historical trends

The proportion of India's population below the poverty line has fluctuated widely in the past, but the overall trend has been downward. However, there have been roughly three periods of trends in income poverty.

1950 to mid-1970s: Income poverty reduction shows no discernible trend. In 1951, 47% of India's rural population was below the poverty line. The proportion went up to 64% in 1954-55; it came down to 45% in 1960-61 but in 1977-78, it went up again to 51%.

Mid-1970s to 1990: Income poverty declined significantly between the mid-1970s and the end of the 1980s. The decline was more pronounced between 1977-78 and 1986-87, with rural income poverty declining from 51% to 39%. It went down further to 34% by 1989-90. Urban income poverty went down from 41% in 1977-78 to 34% in 1986-87, and further to 33% in 1989-90.

After 1991: This post-economic reform period evidenced both progress and setbacks. Rural income poverty increased from 34% in 1989-90 to 43% in 1992 and then fell to 37% in 1993-94. Urban income poverty went up from 33.4% in 1989-90 to 33.7% in 1992 and declined to 31% in 1993-94.

In summary, the NSS recorded poverty rates are:

| Year | Round | Poverty Rate (%) | Poverty Reduction (over 5 years) (%) |
|-------------|--------------|-------------------------|---|
| 1977-78 | 32 | 51.3 | |
| 1983 | 38 | 45.65 | 11.01 |
| 1987-88 | 43 | 39.09 | 14.37 |

| | | | |
|-----------|----|-------|-------|
| 1993-94 | 50 | 37.27 | 4.66 |
| 1999-2000 | 55 | 26.09 | 30.00 |
| 2004-2005 | 61 | 22.15 | 15.10 |

E. Rural – Urban Distribution of the Poor

Over 80% of the poor were located in rural areas in the 1970s. The substantial decrease in the number of rural poor by 32.4 million between 1977-78 and 1987-88 changed the distribution of the poor between rural and urban areas in that the proportion of the rural poor declined steadily from 80.3% in 1977-78 to 75.5% in 1987-88. The number of urban poor increased by 10.6 million during the same ten year period partly due to migration of the poor from rural areas. There was therefore an increase in the relative share of urban poverty from 18.7% to 24.5% during the period from 1973-74 to 1987-88 and it has fluctuated around this estimate since then. Table below shows the distribution of the poor between rural and urban areas.

Table: Rural-Urban Distribution of the Poor in India, 1973-74 to 1993-94

| Year | No of Poor in Rural Areas (in Million) | No of Poor in Urban Areas (in Million) | Total Population Below the Poverty Line in Million) | % of India's Poor Located in Rural Areas | % of India's Poor Located in Urban Areas |
|-----------|--|--|---|--|--|
| 1973-74 | 261.3 | 60.0 | 321.3 | 81.33 | 18.67 |
| 1977-78 | 264.3 | 64.6 | 328.9 | 80.36 | 19.64 |
| 1983 | 252.0 | 70.9 | 322.9 | 78.04 | 21.96 |
| 1987-88 | 231.9 | 75.2 | 307.1 | 75.51 | 24.49 |
| 1993-94 | 244.0 | 76.3 | 320.3 | 76.18 | 23.82 |
| 1999-2000 | 193.2 | 67 | 260.2 | 74.3 | 25.7 |

Source: Planning Commission Draft Ninth Five Year Plan (1997-2002), Government of India, Poverty Estimates for 1999-2000, Press Information Bureau, 22nd February, 2001 and own calculations

F. Vulnerable Groups

Chronic poverty seems to be disproportionately high among historically marginalized groups such as scheduled castes, scheduled tribes, the elderly, women and the disabled. The multiple deprivations suffered by these groups make it harder for them to escape from poverty.

Scheduled Castes and Scheduled Tribes

Caste and tribe are structural factors which pre dispose certain groups to long term poverty and deprivation. The scheduled castes are a collection of castes that suffered the socially oppressive practice of untouchability. While some of them are small and marginal farmers, most of the scheduled caste families in rural areas work largely as agricultural labour. In the urban areas, a large proportion of unorganized workers are from the scheduled castes. The scheduled tribes were identified on the basis of certain well defined criteria including distinctive culture and pre-agricultural modes of production. Two third of the bonded labourers (essentially chronically poor with likelihood of intergenerational transmission of poverty) identified in the country are from scheduled castes and scheduled tribes.

Scheduled castes are concentrated especially in the states of Uttar Pradesh, West Bengal, Bihar, Tamil Nadu, Andhra Pradesh, Madhya Pradesh, Rajasthan and Karnataka. Scheduled tribes are primarily in 6 states – Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajasthan.

Lower levels of access to physical, human and social capital result in greater likelihood of these groups being vulnerable to persistent or chronic poverty.

Estimates of severe poverty show that whereas 12% of non SC/ST rural households were severely below the poverty line as many as 22% scheduled castes and 25% scheduled tribe households were in severe poverty. Similarly in urban areas 13% non SC/ST household experienced severe poverty whereas 26% scheduled caste and 20% scheduled tribe household were very poor.

Similarly, almost half of the main workers who were from scheduled castes and a third of those from scheduled tribes were agricultural labourers as compared with an average of one fifth for the aggregate population. Agricultural labourers have been identified in the literature as the group that is the most susceptible to chronic poverty.

Gender

In no society do women enjoy the same opportunities as men. The Human Development Report states that poverty has a woman's face – of the 1.3 billion people in poverty, 70% are women. Income poverty in India is

generally measured at the household level and as a result gender segregated data on women in poverty is available only for households that are headed by women. However, poverty does have a gender dimension and the deprivation suffered by women is partially captured by the glaring gaps in statistical indicators. Gender inequalities are explicit in statistics depicting differences in the sex ratio, child infanticide, literacy rates, health and nutrition indicators, wage differentials and ownership of land and other assets. Implicit gender inequalities are located in the household and are far harder to capture in statistics. Intra-household inequalities result in unequal distribution of resources; of control and decision-making; and unfair, unequal distribution of work, drudgery, and even food.

Gender discrimination exacerbates the impact of poverty on women due to unequal allocation of food, lower wage rates, and lack of inheritance rights. Even in households that are above the poverty line on average, women may suffer severe deprivation as for example, in the case of a small family including a widow and her son, where the son's earnings are the main source of household income. While he leads the relatively privileged life of those who have daily access to a substantial sum of cash, the widowed mother leads a severely deprived life. Economic dependence is extremely high especially among elderly women and a large proportion of older persons suffer chronic illness and some type of disability. Rural women in India in 1983 had a 12% higher probability of being poor than male though this was offset by the excess of men among the poorest urban adults.

Women in poverty were found in all three categories of poverty – destitute, structural and mobile - in proportions at least equal to those of men. A disproportionate number of the destitute, however, were said to be female-headed households, and many of these women were destitute for structural reasons in that their identity as women closed most occupations to them. Women may be hired as agricultural workers, but are commonly paid only a half to two-thirds of the wage received by men performing the same work.

The combination of low entitlements, dependency and societal limitations that prevent realization of their capabilities due to denial of access to for example, literacy and education combined with 'market discrimination' result in their being concentrated in the low-paid end of the market. Their unequal situation in the labour market is linked to their increasing poverty.

1. Activities which are in the male domain such as ploughing, irrigation, levelling etc. are paid more. Those in the female domain, eg. weeding, transplanting, winnowing etc. are paid less.
2. Operations which use machinery and draught animals are performed by men. Those which demand direct manual labour are performed by women.
3. In rice cultivation for example, seeding, transplanting, weeding and threshing are women's jobs. Ploughing is done by men. In mining and quarrying they are engaged in stone quarrying as irregular casual workers. In the secondary sector in household industries they work as helpers. In construction work, men do the skilled work of brick laying while women mix mortar and carry head loads.
4. Wages paid to women are lower than the wages paid to men. In some villages where the husband is a permanent labourer, the wife works for the same employer without a contract.

Women work longer hours to achieve given levels of poverty with additional responsibility for home and family duties. They have less chance to escape poverty than men with higher levels of illiteracy among those below the poverty line. Their lack of education is partly responsible for the lower likelihood of women moving to towns than men. Their disadvantage lies in less leisure, fewer opportunities, greater vulnerability, worse health and less education.

Poor, trebly disadvantaged women are intimately involved in household survival and risk minimization. Migration is potentially powerful force in poverty reduction. But poor women often stay put when men migrate; when they migrate they have few opportunities open to them. They are less likely than men to diversify occupationally, and therefore increase their value. The absence of positive change in poor women's position and in their skills and education often results in a culture of poverty being transmitted to the next generation. Future research will explore the ways in which women's development (education, health, income) may enable the interruption of intergenerational transmission of chronic poverty as how chronically poor women (and men) transmit their vulnerability to poverty to their children.

Older Persons

Age and high levels of economic dependence and/or disability combine to create high levels of vulnerability to chronic poverty. While old age pension

schemes are in place neither the small amounts made available nor the hassle of accessing them make this a solution to the problem of chronic poverty among the elderly. With the high incidence of chronic ailments and health care needs of the elderly, declining family size, migration and breakdown of traditional family structures that provided support, this group of the population is extremely vulnerable to poverty.

The 1991 census showed that approximately 7.6% of India's rural and 6.3% of India's urban population was above the age of 60. 7.8% males and 7.4% females in rural and 6.2% males and 6.6% females in urban areas were in the category of the aged.

The NSS data show that in both rural and urban areas, roughly 50% of aged persons were fully dependent on others, 13 to 16 % were partially dependent and only 30% were economically independent. Economic independence was far greater among males than among females. Close to half the elderly males and only 12% of elderly females were economically independent. In contrast, more than 70% of older females and only about 30% of older males were fully dependent on others.

High levels of economic dependence at low household income levels mean that meager resources need to be stretched thinner and thereby increase vulnerability to poverty of physically and financially dependent older persons. Inadequate financial resources are a major concern of the Indian elderly and more so among the female elderly. In many situations, the rural elderly continue to work though their number of working hours comes down with increasing age. Financial problems are more common among widows and among the elderly in nuclear families. Economic insecurity was the sole concern of the elderly in barely sustainable households in rural India. The worries of the elderly are on two fronts: fears of sickness or disability and financial worries. Almost half the elderly reported suffering from a chronic ailment that required medical attention. 40% of rural and 35% of urban elderly persons reported having some type of disability.

The Disabled

The Planning Commission estimates that there were about 16 million physically disabled persons in India in 1991 as compared with 13.7 million in 1981. 12.73% of physically disabled persons suffered from more than one of the following disabilities, i) visual disability ii) hearing disability iii)

speech disability iv) locomotor disability. The estimates show that among the different types of physical disabilities, the number of persons having locomotor disability was highest (almost 50%) followed by the number of persons with visual and hearing disability.

One researcher refers to the close and positive relationship between disability and poverty in that mechanisms of poverty like malnutrition lead to disability. Hence poverty which is an 'economic disability' leads to 'social disability (exclusion and stigma) and medicalised (physical) disability. Chronic sickness and disability affect both short term and long-term poverty.

G. History of attempts to alleviate poverty

Since the early 1950s, government has initiated, sustained, and refined various planning schemes to help the poor attain self sufficiency in food production. Probably the most important initiative has been the supply of basic commodities, particularly food at controlled prices, available throughout the country as poor spend about 80 percent of their income on food.

Programmes like *Food for work* and *National Rural Employment Programme* have attempted to use the unemployed to generate productive assets and build rural infrastructure. Other anti poverty programs include *Rural Landless Employment Guarantee Programme*.

The Rural Landless Employment Guarantee Programme was instituted in FY 1983 to address the plight of the hard-core rural poor by expanding employment opportunities and building the rural infrastructure as a means of encouraging rapid economic growth. There were many problems with the implementation of these and other schemes, but observers credit them with helping reduce poverty. To improve the effectiveness of the National Rural Employment Programme, in 1989 it was combined with the Rural Landless Employment Guarantee Programme and renamed Jawahar Rozgar Yojana, or Jawahar Employment Plan.

In August 2005, the Indian Parliament passed the *Rural Employment Guarantee Bill*, the largest programme of this type in terms of cost and

coverage, which promises 100 days of minimum wage employment to every rural household, in 200 of India's 600 districts. The question of whether economic reforms have reduced poverty or not has fueled debates without generating any clearcut answers, and has also put political pressure on further economic reforms, especially those involving downsizing of labour and reduction of agricultural subsidies.

Outlook for poverty alleviation

Eradication of poverty in India can only be a long-term goal. Poverty alleviation is expected to make better progress in the next 50 years than in the past, as a trickle-down effect of the growing middle class. Increasing stress on education, reservation of seats in government jobs and the increasing empowerment of women and the economically weaker sections of society, are also expected to contribute to the alleviation of poverty. It is incorrect to say that all poverty reduction programmes have failed. The growth of the middle class (which was virtually non-existent when India became a free nation in August 1947) indicates that economic prosperity has indeed been very impressive in India, but the distribution of wealth has been uneven.

Controversy over extent of poverty reduction

While overall poverty in India has declined, the extent of poverty reduction is often debated. The Indian debate has run parallel to, and is itself a large part of, the wider debate about globalization and poverty. The economic reforms of the early 1990s were followed by rates of high economic growth. The effects on poverty remain controversial, and the official numbers published by the Government of India, showing a reduction of poverty from 36% (1993–94) to 26% (1999 – 00), to 22% (2004 - 05), have been challenged both for allegedly showing too little and too much poverty reduction.

While there is a consensus on the fact that liberalization has led to a reduction of income poverty, the picture is not so clear if one considers other non-pecuniary dimensions (such as health, education, crime and access to infrastructure). With the rapid economic growth that India is experiencing, it

is likely that a significant fraction of the rural population will continue to migrate toward cities, making the issue of urban poverty more significant in the long run.

H. Anti-poverty, employment generation and basic services programmes

Pradhan Mantri Gram Sadak Yojana (PMGSY)

Launched in December 2000 as a 100 per cent CSS, PMGSY aims to provide all-weather connectivity to all the eligible unconnected rural habitations. Bharat Nirman, envisages connectivity by 2009 to all the habitations with a population of 1000 or more in the plains, and of 500 or more in the hilly, desert and tribal areas. The systematic upgradation of the existing rural road network also is an integral component of the scheme, funded mainly from the accruals of diesel cess in the Central Road Fund, with support of the multilateral funding agencies and the domestic financial institutions. Up to December 2005, with an expenditure of Rs.12,049 crore, a total length of 82,718 km. of road works had been completed.

Indira Awaas Yojana (IAY)

IAY aims to provide dwelling units free of cost, to the Scheduled Castes (SCs), Scheduled Tribes (STs), and freed bonded labourers, and also the non-SC/ST BPL families in rural areas. It is funded on a cost-sharing basis in the rates of 75.25 between the Centre and the States. Under IAY, the ceiling on construction assistance is Rs.25,000/- per unit in the plains and Rs.27,500/- for hilly/difficult areas; and Rs. 12,500/- on upgradation of unserviceable kutcha house to pucca/semi pucca house for all areas. Up to January 30, 2006, about 138 lakh houses had been constructed/upgraded with an expenditure of Rs.25,208 crore.

Swarnjayanti Gram Swarozgar Yojana (SGSY)

SGSY, launched in April, 1999 after restructuring the Integrated Rural Development Programme and allied schemes, is the only self-employment programme for the rural poor. The objective is to bring the self-employed above the poverty line by providing them income-generating assets through bank credit and Government subsidy. Up to November 2005, the Centre and

States, sharing the costs on 75:25 basis, had allocated Rs.8,067 crore, of which Rs. 6,980 crore had been utilized to assist 62.75 lakh self-employed.

Sampoorna Grameen Rozgar Yojana (SGRY)

SGRY, launched on September 25, 2001 to provide additional wage employment in the rural areas, has a cash and food grains component, and the Centre bears 75 per cent and 100 per cent of the cost of the two with the balance borne by the States/UTs. In 2004-05, 82.23 crore person days were generated with the Centre releasing Rs. 4,496 crore as cash component and about 50 lakh tonnes of foodgrains to the States/UTs. Besides, under the special component of the SGRY, with the States/UTs meeting the cash components, Centre released 26 lakh tonnes of foodgrains to the 13 calamity affected States. In 2005-06 up to November, 2005, the number of person days generated under SGRY was 48.75 crore, while the Centre's contributions in terms of the cash and foodgrains components up to January, 2006 were Rs. 4651 crore and 35 lakh tonnes, respectively. Under the special component, about 11.65 lakh tonnes of foodgrains have been released to the 11 calamity-hit States in the current year

National Food for Work Programme (NFFWP)

The NFFWP was launched as a CSS in November 2004 in the 150 most backward districts to generate additional supplementary wage employment with food security. States receive food grains under NFFWP free of cost. The focus of the programme is on works relating to water conservation, drought proofing (including aforestation /tree plantation), land development, flood-control/protection (including drainage in waterlogged areas), and rural connectivity in terms of all-weather roads. In 2004-05, allocation of Rs 2,020 crore and 20 lakh tonnes of foodgrains generated 7.85 crore person days of employment. In 2005-06, of the allocation of Rs 4,500 crore and 15 lakh tonnes of food grains (Revised), Rs.2,219 crore and 11.58 lakh metric tonnes of foodgrains had been released up to January 27, 2006. About 17.03 lakh person days were generated up to December 2005.

DPAP, DDP and IWDP

Drought Prone Areas Programme (DPAP) was launched in 1973-74 to tackle the special problems faced by those areas constantly affected by severe drought conditions. Desert Development Programme (DDP) was launched in

1977-78 to mitigate the adverse effects of desertification. Integrated Wastelands Development Programme (IWDP) has been under implementation since 1989-90 for the development of wastelands/degraded lands. The basis of implementation has been shifted from sectoral to watershed basis from April 1995.

For 2005-06, Rs.353 crore, Rs.268 crore and Rs.485 crore have been allocated for DPAP, DDP and IWDP, respectively. So far in 2005-06 up to October, 2005, 3000 new projects covering 15 lakh ha., 2000 new projects covering 10 lakh ha. and 340 new projects covering 16 lakh ha. have been sanctioned under DPAP, DDP and IWDP, respectively.

Swarna Jayanti Shahari Rozgar Yojana (SJSRY)

In December 1997, the Urban Self-Employment Programme (USEP) and the Urban Wage Employment Programme (UWEP), which are the two special components of the SJSRY, substituted for various programmes operated earlier for urban poverty alleviation. The SJSRY is funded on a 75:25 basis between the Centre and the States. In 2003-04, the central allocation of Rs. 94.50 crore plus Rs. 10.50 crore for North- Eastern Region including Sikkim was fully utilized. Even 2004-05 saw the release of the entire budgetary allocation of Rs. 122.00 crore. In 2005-06, out of an allocation of Rs. 160.00 crore, Rs. 84.52 crore had been utilized until November 30, 2005.

National Social Assistance Programme (NSAP)

It provides social assistance benefit to poor households affected by old age, death of the primary breadwinner or need for maternity care, through National Old Age Pension Scheme, National Family Benefit Scheme and National Maternity Benefit Scheme.

Employment Assurance Scheme (EAS):

It is a wage employment programme which generates additional wage employment opportunities during the period of acute shortage of wage employment through manual work for the rural poor living below the poverty line.

Valmiki Ambedkar Awas Yojana (VAMBAY)

VAMBAY, launched in December 2001, facilitates the construction and upgradation of dwelling units for the slum dwellers, and provides a healthy and enabling urban environment through community toilets under Nirmal Bharat Abhiyan, a component of the Scheme. The Central Government provides a subsidy of 50 per cent, with the balance provided by the State Government. Since its inception and up-to December, 31 2005, Rs. 866.16 crore had been released as Central subsidy for the construction/upgradation of 4,11,478 dwelling units and 64,247 toilet seats under the Scheme. For 2005-06, out of the tentative Central allocation of Rs. 249 crore, up to December 31, 2005, an amount of Rs.96.4 crore had been released covering 60,335 dwelling units and 381 toilet seats.

In one of his speeches, President A MP J Abdul Kalam suggested the following approach for poverty removal from the country:

“Poverty removal

Our nation is going through a major challenge of uplifting of 220 million people who are below the poverty line. They need habitat, they need food, they need health care, and they need education and employment finally resulting in a good life. Our GDP is growing at more than 8% per annum. Whereas, the economists suggest that to uplift the people below poverty line, our economy has to grow at the rate of 10% per annum consistently, for over a decade.

Integrated Action for Development: To meet the needs of one billion people whose number will further increase, we have a mission of transforming India into a developed nation. We have identified five areas where India has core competencies for integrated action: (1) Agriculture and food processing (2) Reliable and Quality Electric power, Surface transport and Infrastructure for all parts of the country. (3) Education and Healthcare (4) Information and Communication Technology (5) Strategic sectors. These five areas are closely inter-related and when effectively addressed, would lead to food, economic, energy and national security. Implementation of these programmes in an integrated way and in a time bound manner in a cost effective fashion and also to provide the necessary services to the citizens equitably with ease, it is essential that we use the technologies

available today and work out a comprehensive e-governance system for all government to government and government to citizens transactions.”

I. Harnessing Science for Poverty Removal

We are now living in a world in which advances in science and technology have made it possible as never before in human history that chronic poverty does not have to be the inevitable fate of the majority of humankind. Poverty removal in our lifetime is a feasible societal goal. We must harness the enormous potential of modern science and technology to deal with vital societal concerns such as food security, education and health for all and energy & environment security. Science and modern technology must become an active instrument of social and economic transformation. There is today widespread recognition of the fact that leadership in the modern age rests on the way we harness science for the development of the economy. Even newly industrializing nations like China and South Korea have leap-frogged ahead of us by their mastery of science and technology.

The number of schemes and programmes which have been attempted by the State and Central Governments and a few foreign agencies to address the question of Indian poverty in rural areas and urban areas have had only marginal effect. There are also assessments that the bulk of the Government's funding does not reach the rural areas directly due to various leakages in the transitional paths. As India aspires to become a developed country, with its own position in the comity of nations, poverty removal would become perhaps the utmost challenge. Though there are a number of programmes even now officially "operational", some of which having very catchy slogans, it would be impossible to sustain economic development in the country (even leaving aside the humanitarian considerations about poor people) if India does not eradicate poverty totally both in urban and rural areas within a decade. The stark fact before the country is that for decades we have not been able to solve the crucial problems facing many millions of our people: to have a productive work and earnings for people to take care of their food, clothing, habitat, health, children's education and preparing them for a better future. The number of such deprived people does not seem to be decreasing.

Unless the quantum of money available in the hands of people of the poor families increases very substantially and unless it continues to have some

growth even in the subsequent periods, we cannot say that we have tackled the problems of poverty.

Therefore, we have to introduce selectively various forms of technologies (knowledge/ skills) into the lives of poor people in villages and also provide them with various forms of connectivities in order that they cut the vicious circle of poverty and further impoverishment as the country marches towards market driven transactional economy.

When one talks of technology, it is not a uniform solution of one or two types knowledge and skill requirements (a la IT, BT syndromes) but they are at various levels and sectors and would also require investments along with the same. In the process, the poor will also invest but at levels they can afford and get quick and better returns. This is done because they cannot depend upon the subsidy; already the public exchequer is under severe pressure. Also because in the past it has always been the experience that from what is proposed to be given as subsidy through public system, only very little of it reaches the poor. Therefore, the solution ought to be in terms of providing from public resources or otherwise, the right type of knowledge, skill and technological inputs and certain minimum infrastructure for connectivities and knowledge/skill inputs. These can help them to come up with their own investments or attract others' investment. However, giving connectivity and knowledge/skill inputs is something which ought to be done with funds from public system but executed differently than what has been done during the past over 55 years.

Problem of People in the Poorly Connected Villages

Mostly people in poorly connected villages live on poorly productive agriculture, cattle rearing, and related casual work. These are more or less primary products of villages which find their one way to smaller towns and cities going, more or less, as a very low value added commodity items. Paddy is collected and milled in towns; in cities further value addition takes place. Honey is collected in villages and moved to bigger towns and cities where it is bottled and marketed. Low value artisanal goods are purchased in villages and marketed in towns/cities as value added products. Same is the case with milk. Thus most of the villages are always at subsistence levels. Poor people in villages do not have the capacity to hold their products to get better returns. They often do distress sale. Of course, there are a few rural rich farmers who can afford to hold their produce; they have in many ways

integrated themselves with towns and cities. Many such rich farmers have now started to live in towns or are having a second home in towns or cities. Some of these rural rich farmers are themselves under economic pressure exerted on agriculture by the global economy. They are trying to get out of agriculture and get into other businesses as is happening in Punjab, Andhra Pradesh etc. But bulk of the rural poor and the marginal farmers cannot afford this alternative. They continue to struggle in the villages and get whatever seeds or fertilizers, they can get access to within the constraints, and produce whatever they can and sell on whatever prices are offered to them by the markets of nearby towns or the middlemen. The same applies to artisans who produce crafts and other products from villages. The situation of landless labour in villages is still worse. Many of them tend to migrate to cities as unskilled work force. Occasionally a few tourists may go to some of the villages which have some tourists' attraction or have some other forms of archaeological and historical importance. Again at these places tourist industry develops. But they mostly thrive on products produced in cities: potato chips, beverages, every food products and bottled water come from cities. Occasionally some tender coconut may be bought from these villagers! Of course a few villagers get jobs selling their products as hawkers. Some small shops may come up which sell these products and may have a clientele from low income Indian tourists. But by and large these trickle down effects to villages are very minimum.

The solution is to generate linkages of knowledge and skills and investments into the villages not merely as small doles or as something which is given in the name of appropriate technology keeping them at subsistence level, but in substantial manner with a new approach so that larger value addition even within the limited investment level affordable by them is done at village level. Such activities need not be connected only with agriculture or their traditional activities. They should be value adding and sustainable economically. Our villagers are very quick to adapt to new skills. Today, such linkages are absent or are very minimal. Providing such two way linkages cannot happens in a vacuum. It will require initial public investment in terms of economic connectivity and also in terms of knowledge and skills. If this is done with a strong will and steadily over a period of 10 years then the economic levels of the villagers will grow to a good level. Then they will not be merely people eking out an existence at subsistence levels (i.e. "drawers of water and hewers of wood") but will be those who can produce products and services of good competitive quality with each one having their own niche in a global chain of production but

without being at a disadvantaged position of one way extraction currently in vogue. In other words, they can master the market forces of liberalization and globalization with adequate tools with them to participate as equal partners. The win-win situation which is being talked in general terms for others in the global forums should also include these people rapidly. It cannot be win-win for others at the cost of this large number of poor people. To equip these people with the tools briefly described above becomes a necessity for India to become as a developed country. They will be crippled in economic terms if the present approach that is "to extract cheap labour/goods when available and to dump them at difficult times" with occasional populist doles thrown in to win votes. The TIFAC models can be appropriate to equip rural areas with necessary tools with minimum necessary public investment.

It is also important to point out that equipping people with these tools and related investment is far more crucial than the political and legal initiatives of the Panchayati Raj for villages. The rates of changes due to globalisation are fast. And time periods between opening and closing of windows of new opportunities are small. Therefore actions of equipping people with tools and investments have to be done speedily. Otherwise there may be irreversible damages.

The foremost of the sector which will have immediate effect on poverty alleviation is agriculture, cattle rearing, poultry and such food related items. The key issue is to provide the farmer with productivity enhancing knowledge / skills. Most of these will come under what is called "known science and technology", but applied locally through systematic understanding of local habits and preferences and also choosing the produce, which can be positioned in a proper value chain in the nearby markets. If necessary, the farmers have to be convinced to change some of their practices through practical demonstration.