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An Estimation to Escape Absolute Poverty in India

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The poverty estimates provided by the Tendulkar committee showed greater reduction, but the estimates are generally considered to be low and below the international poverty line i.e \$1.25 per day. The Indian poverty Line estimated by the Tendulkar committee has a value of \$1.08 per day. The present rate of poverty reduction takes into account the economic growth and income distribution for a specified period. For a period of 25 years (i.e 1980-2005), the number of poor people living in the interval of \$1.25 and \$1.00 has risen from 124 million to 189 million, indicating a rise in poverty from 24.3% to 41.6% in India. The fact that poverty has fallen by 30 million during this period by adopting \$1.08 vanishes, when \$1.25 is adopted as the poverty line. Now we have two yard sticks, one is the IPL and the other is the Indian Poverty Line. Judging by the IPL, the rate of poverty reduction during the last 12 years is not enough to achieve the Millennium Development Goal One (MDG One), but when one uses the Indian Poverty Line (i.e \$1.08), MDG One would be attained. This proposition has not been tested so far as there are only limited numbers of projection methodologies available. The forecasting or projection tools would be of greater use to carry out appropriate corrections in the poverty alleviation policies and programmes implemented in the developing countries. The World Bank has recently announced that 1.2 billion poor people in the globe have to be freed from the clutches of poverty by 2030.

The poverty gap index method measures mean proportionate poverty gap in the population, in other words the cost of eliminating poverty in a given country. This is a useful measure to the poverty alleviation budget to target benefits and programmes for the poor. The limitation of this method is that it violates the transfer principle. This method is insensitive to the number of heads involved and measures only the average income gap of the poor. The next method is the poverty severity index, where weights proportional to the poverty gap are assigned, unlike the poverty gap method where weights are assigned equally. It lacks intuitive appeal and is not used widely in the policy arena except in the academic realm. One of the similar measures proposed by Foster, Greer and Thorbecke is one which provides a convenient technique to dis-aggregate the population into sub groups for the purpose of poverty estimation, and though this method provides an elegant unifying poverty measurement framework, it lacks emotional appeal; therefore it is not widely used. An attempt has been made to answer this question by estimating the time period and monthly per capita consumption expenditure required for poor households to exit absolute poverty in urban and rural India by applying the Linear regression method and

Kernel Density function for consumer expenditure distribution from the National Sample Survey Organisation's 61st, 66th and 68th quinquennial rounds.

The estimation of time period and mean Monthly Per Capita Expenditure (MPCE) required to escape absolute poverty has two parts. In the first part, the density in the decile parts below the poverty line, mean density and mean MPCE are estimated using Kernel Density Function for each survey round. In the second part, the estimated mean MPCE and mean density for each survey round are used as co-ordinates and gradient for the co-ordinates are computed. Based on the gradient, the values of mean MPCE and mean density required to escape poverty are estimated. Kernel Density estimation was carried out for rural and urban India in the first part using the urban and rural unit level sample data of four rounds of National Sample Survey Organisation (NSSO). The samples below poverty line are divided into decile parts, and for each decile part density is calculated, the computed decile density is used to plot household decile density trend as well as mean density for rural and urban India. Based on the density computed for each decile part, the mean density below the poverty line is calculated; similarly the mean monthly per capita expenditure of households below poverty line is also arrived at. Once these values are computed for four survey rounds, the gradient is calculated, with the computed gradient the time period and mean monthly per capita expenditure required for the last Household to escape absolute poverty is estimated for rural and urban India;

The dominant trend of density and MPCE for urban and rural areas in major Indian states indicates that the income level is increasing and density is decreasing. The desired trend is that the income level of households in each state should increase to the extent of meeting the expenditure required for procuring adequate goods and services, which will enable the poor households to escape poverty. Certain states like Himachal Pradesh, Haryana and Punjab are moving in this direction faster, whereas States like Bihar and Odisha have a long way to go and much more needs to be done to accelerate economic growth in these States. In the case of developed states, mean monthly per capita consumption expenditure for poor population is increasing faster but the higher density remain a deeper concern which indicates widening of inequality. It is also ascertained that the bulk of the wealth created is getting concentrated or not reaching certain sector or places in the backward states. Poverty estimates from NSS rounds 61, 66 and 68 are used for the projection of time period and mean MPCE. Regression indicates that the convergence is more in the case of rural India than in urban India. It is estimated that the number of years required for rural India at the current rate of poverty reduction is 22.1 years. The mean MPCE for the last household in the year 2034 would be Rs.1653.35, without accounting for the factor of inflation. Similarly for urban India, the last household requires Rs. 1723.56 without the inflation factor to escape poverty and 17.9 years from 2012 ie 2030.