Poverty:
A Dance of the Seven Veils

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Reasons for uprooting poverty

The magnitude of world poverty is disturbingly vast. The absolute number of the poor continues to rise. The World Bank estimates that the number of people living on less than $ 1 a day will rise from 1.1 billion in 1990 to 1.3 billion in the year 2000.[1] Clarity about the concept of poverty and accuracy in its measurement are not just of academic interest; they are important to guide action for poverty reduction and elimination. Unless we know who and where the poor are, and how poor they are, policies cannot be framed. Policies and interventions can be misdirected unless the poor are identified accurately.

It may be asked why it is important to know the facts about poverty. The reason is that we know, or think we know, enters into our theories, models and policies. Ill-informed or ignorant action can be ineffective or counter-productive. It can contribute to the aggravation of poverty. In the attempt to help one group we may hurt another, or even the one chosen. On the other hand, firm knowledge is very hard to gain. The fate of the English poor during the Industrial Revolution is still an unsettled issue, after two hundred years. Action cannot wait for the full results of research and proposals to study sometimes serve as excuses for inaction. We have to act on whatever inadequate knowledge we possess, as best we can. It will be shown that seven veils have to be lifted in order to arrive at the true nature of poverty. But each veil reveals something significant.

There are at least six reasons why we should wish to eradicate poverty.

First, and above all, the elimination of poverty and full human development of every person is a worthy end in itself that needs no further justification.

Second, it is a means to higher productivity. A well nourished, healthy, educated, skilled, alert labor force is the most important productive asset. This has been widely recognized, though it is odd that Hondas, beer and television are often accepted without questioning as final consumption goods, while nutrition, education and health services have to be justified on grounds of their productivity.

Third, it reduces human reproductivity, by lowering the desired family size. This is generally regarded as desirable. It is paradoxical that a policy that reduces infant mortality and raises health standards generally should lead to lower population growth. One might think that more survivors mean more mouths to feed. But evidence shows that poor people try to over-insure themselves against infant deaths, and that reduced child deaths lead to lower desired family size. It is true that there is a time lag of about two decades between falling child mortality and lower fertility rates. But other components of the human development strategy, such as better and longer education of girls, pay off sooner in smaller families.

Fourth, human development is good for the physical environment. The poor are both a cause (though not as large a cause as the rich) and the main victim of environmental degradation. Deforestation, desertification and soil erosion are reduced with poverty reduction. The impact of population growth and population density on the environment is more controversial. The conventional view is that it is detrimental. The argument is that population growth increases the demand for land for uses other than crops. Fewer trees adversely affect the environment. Over-cultivation, over-grazing by cattle, deforestation lead to desertification. In addition., bad cultivation practices strip vegetation from the topsoil and deprive it of nutrients, thereby exposing it to erosion from sun and wind.

Fifth, reduced poverty contributes to a healthy civil society, democracy, and greater social stability. Although the very poor, being too weak, are not a source of rebellion, gross inequalities lead to social conflict and possibly to civil war. China has recently witnessed a rapid reduction in poverty, while maintaining an autocracy, but the call for freedom and human rights, particularly from a growing middle class, cannot be suppressed for long.

Sixth, it has political appeal, for it may reduce civil disturbances and increase political stability, though this will depend on the relation between aspirations and material improvements. If aspirations move too far ahead of improvements, this may lead to political instability.

Identifying the poor

Perhaps the first question to be asked in a discussion of poverty is, how should we identify the poor? The common practice of using fractiles of income recipients -- deciles or quintiles or quartiles -- has its uses but also has serious defects.

First, these figures have often been applied to households rather than to persons, or adult-equivalents, and therefore make no allowance for the fact that some households are large, others small, some consist of children, others of older people.[2] There is considerable disparity in ranking incomes, including imputed incomes from home-produced goods and services (or in expenditure, always including expenditure on self-produced goods) per household and incomes (or expenditure) per head. Large households tend to have low income per person but high income per household. However, ranking by household income approximates ranking by income per adult equivalent less badly than by income per person, because larger households tend to have a higher ratio of children to adults. Income per head is a much better measure of poverty than income per household. Michael Lipton notes that only under two circumstances might income per household be a better measure. First, if indivisible assets (a car or furniture) or other economies of scale in consumption or forms of joint consumption are important, dividing the flow of services by the number of family members would understate the level of welfare enjoyed by each. But this is not likely to be important in very poor families. Second, as already noted, larger households tend to have a higher ratio of children to adults, and therefore their income approximates income per consumer unit more closely than income per person does.[3] Figures for the ideal measure, income per adult equivalent, are often not available. Nor is it possible to give precise weights to males and females at different ages for total requirements to attain a given level of welfare.

Second, looking a bit deeper than mere statistics, and moving from the measurement to the causes of poverty, we may identify the poor by their social and economic class, people who lack physical assets, or have assets of only low value -- the landless workers, the proletariat, the small peasant who owns dry, unirrigated, poor land; or by residence -- the rural poor, the urban poor; or by their lack of human capital -- people with low educational attainments, stuck in low-paying insecure jobs without access to retraining; or by ethnic group -- the tribes in India, the Muslims in Malaysia; or by the region in which they live, frequently the South, or the mountains, or areas distant from the capital city; or by the stage they have reached in the age cycle -- young families with children or the old; or by the fact that they suffer from barriers to entry into jobs or capital markets, such as discrimination on grounds of race or sex, which is one aspect of social exclusion; or by sex, family size and age (and sex) of the head of the family -- households with many children and other dependants, single parent, female-headed families, widows (in India); or by the season of the year -- poverty rising in the rainy season; or by the fact that they are temporarily or chronically handicapped, to which some of the just mentioned conditions provide clues.

Poverty has many dimensions, some of which reinforce each other, and concentration on deciles, even when adjusted for adult-equivalents and therefore the size and composition of households, relative price changes, post-tax incomes and social services provided free, may obscure some of these. We need supplementary information. Many of these conditions give strong hints, and some may give definite information, about whether poverty is likely to be permanent or temporary.

Third, knowing a household's or a person's share in total income does not tell us how long they have been in that fraction. Perhaps we need not be unduly worried if a student is poor (as long as poverty does not damage his health), if we know that he or she will be much better off later. Stephen Jenkins of Essex University has produced evidence of considerable income mobility in England: only 7 per cent of the population remain in the bottom 20 per cent of incomes for four consecutive years.[4]

Poor people's incomes tend to fluctuate from year to year, and from season to season within the year, depending on the weather and other hazards. These people will save in good years and dissave in bad ones. Income may have to be used to repay debt; or it may have to be saved for a time when consumption threatens to decline even lower; or it may be spent on an addictive goods. Two of Seebohm Rowntree's reasons for secondary poverty -- drinking and gambling -- can be regarded as addictions which we may want to deduct from income before arriving at resources available to meet basic needs.[5] Today we would add drugs.

Consumption expenditure being more stable will, therefore, be a better measure of their poverty than income. (It has the additional practical advantage of being often more easily gathered than income data, which can be quite uncertain for owner-operated farms or firms, for which no books are kept and for which the concept of net profits is often vague.) Data for consumption and income are, however, sometimes inconsistent. Consumption is generally thought to be the appropriate welfare and impact measure.

Knowing how long the poor have been in the poverty group raises also other questions. Two societies with the same income distribution by deciles enjoy very different levels of welfare, if in one the poor move rapidly up in the income scale, while some new entrants start poor, whereas in the other the poor and their children are condemned permanently to languish in poverty. Or compare two societies, in one of which incomes are determined each year by a series of lotteries, voluntarily entered by people who love gambling, and who become rich and poor in quick succession, while in the other the same unequal income distribution that would result from such a lottery is permanent. Or consider a society in which there is no inheritance and everybody saves exactly the same amount each year between age 21 and 65. At any given moment, the index of inequality would be quite high, yet looking at lifetime earnings this could be a highly egalitarian society.[6]

Over a person's life, there are normally periods of greater and smaller poverty. Young parents with small children, and old retired people are sometimes poorer than young parents without children, both of whom are working, or than young, income-earning adults, still living with their parents but yet unmarried. Life-cycle poverty tends to be less severe than lifelong poverty because it can be partly alleviated by borrowing.[7] But life-cycle poverty is probably less important in developing countries than in industrialized ones, where the nuclear family is more pronounced, and where poverty is more the result of achievement than of ascribed status.[8]

At the same time strokes of misfortune do hit families in developing countries and may cause temporary poverty. Lipton cites Gaiha, who has found substantial mobility in and out of the two or three lowest deciles. Lipton suggests "that this mobility is due mainly, not to life-cycle factors, but to the fact that <u>different</u> households and villages, in any of two given years, are hit by (a high incidence of) environmental or personal misfortune."[9]

For poor women, however, life-cycle poverty can be severe; especially for female heads of households without adult males to help (as a result of death, divorce, illness, absence or disability). Among the poorest of the poor are young widows and elderly individuals with no adult male to help manage the family enterprise or negotiate the tenancy, labor or credit problems.

Though income- or consumption-poverty and vulnerability are often equated ("vulnerable groups" standing for the poor), Robert Chambers correctly distinguishes between them. "Poverty can be reduced by borrowing and investing; but such debt makes households more vulnerable."[10] There are trade-offs between poverty and vulnerability (or between security and income). Vulnerability is a function of external risks, shocks and stress, and of internal defenselessness. It is a dimension of poverty in the wider sense.

Finally, income or consumption do not exhaust the sources of material benefits to the poor. We have to add access to common property resources (community pastures, community forests, wastelands, common dumping and threshing grounds, watershed drainage and village ponds, rivers and their banks, etc. which can contribute up to 25 per cent of poor household incomes) and goods and services provided free by the state. Common property resources contribute to fodder, fuel, food, fencing, timber, etc. It is only to income/consumption, which is most easily measured, or occasionally with the addition of fre public services, to which authors in the mainstream tradition of economics have paid attention. N. S. Jodha has emphasized the neglect of these resources in poverty measurement.[11]

Poverty: absolutely or relatively speaking?

Next, we may ask, is poverty absolute or relative? Poverty lines vary between climates, cultures and social and economic environments. The poverty line for the USA is at a substantially higher income than that for Bangladesh. The US Bureau of the Census publishes figures showing that 15 per cent of Americans live below the official poverty line. Clearly, these people are much better off than the majority of Bangladeshis. Is there a component in poverty that has to be defined in relation to the mean (in which case poverty is inevitable, for there will always be some below the average), or to the bottom of the 80 per cent above the lowest 20 per cent, or to one-third of average national income per head, or to some other reference of what is regarded as a minimum decent standard in a society? Some authors regard all poverty as relative, but this is surely confusing inequality -- an evil, but a different evil -- with poverty. Everyone in a society can be equally starving, and we would not want to say that they are not poor.[12] Some measures of inequality give greater weight to income distributions that are unfavourable to the very poor, and thereby catch an element of what we mean by "relative poverty." A. B. Atkinson defines what he calls "the equally distributed equivalent income" of a given distribution of total income. It is that level of income per head which, if enjoyed by everybody, would make total welfare exactly equal to the total welfare generated by the actual income distribution. Atkinson's measure is 1 minus (the equally distributed income divided by the average actual income), and therefore varies between zero and one.[13]

Karl Marx wrote about the man who lived in a small cottage and was perfectly happy until a neighbor came along who constructed a palace.[14] Then the cottager began to feel deprived. Relative deprivation is deprivation that results from comparing our level of living with that of a reference group with higher incomes.[15]

Relative deprivation can, however, cause absolute deprivation. Richard Wilkinson of Sussex University found that inequality itself, irrespective of the absolute level of material standards, has adverse effects on the health of the relatively disadvantaged. Perceptions of inequality translate into psychological feelings of lack of security, lower self-esteem, envy and unhappiness which, either directly or through their effects on life-styles, cause illness.[16]

It is, however, important to note that not all poverty resulting from rising average incomes is relative; <u>absolute</u> poverty can also result from higher average incomes. A. K. Sen analyzes this by saying that poverty can be an absolute notion in the space of capabilities, though relative in that of commodities or characteristics.[17] A number of different factors can account for this. Some of these are the result of goods and services either ceasing to be available or rising in price more than money incomes; others of changes in conventions and laws; others again of deeper psychological causes, such as shame at not being able to afford what has become socially necessary.

If the benefits from a primary education depend on watching certain television programs at home, those who cannot afford a television set are absolutely worse off, when the average family in that society acquires a set.[18] The television set does not reflect a new need that arises as incomes rise, but satisfaction of the same need (to be educated) requires a higher income. The poor in California are absolutely deprived if they do not own a car, for public transport has deteriorated as a result of most people owning cars. The wide availability of refrigerators and freezers affects the structure of retailing and impoverishes those without these durable consumer goods.[19] Or, turning to low-income countries, as some groups get richer, land is diverted from producing grain to producing fodder crops or meat and dairy products, so that grain becomes more expensive, possibly raising poverty among the poor. In these cases the structure of supply is altered unfavorably to the poor. Or if an essential good is in inelastic supply, the growth of income of a particular group may raise its price so much that the poor are worse off.

In a richer society poor people may be forced to buy over-specified products to meet more essential needs: food that is processed, packaged, advertised, and correspondingly more expensive; drip-dry shirts, even though they may prefer to iron themselves a cheaper, no longer available shirt. It is as if one had to buy a Dior dress in order to keep warm. Or when buses offer les frequent service at higher fares the poor have the choice between waiting longer and paying more for the buses or to spend their scarce resources on a car. The disappearance of low-cost items as incomes rise is well reflected in Marie-Antoinette's reputed admonition to the poor, when bread was short, "Let them eat cake!" (Jean-Jacques Rousseau had referred to it much earlier. It was first said about 100 years earlier about a Spanish princess who married Louis XIV and was repeated about other princesses through the 18th century.[i])

Then there are changes in conventional standards and legal restrictions that accompany greater prosperity, which may be unfavourable to the poor. If you are a rural dweller, you can pitch up a tent that provides shelter against the elements. But if you live in New York City, you must not put up a tent in Madison Avenue. In the bush you can wear only a loin cloth, but if you work in London you have to wear a shirt, suit, tie and shoes, and perhaps carry a neatly rolled umbrella. Higher minimum standards of housing are imposed on you by the higher incomes of the city dwellers, or by restrictions on what structures you can put up.

Adam Smith wrote that customary standards also determine what is a necessity.[20] To have no shoes in England is to be deprived of a necessity, though this is not so for women in Scotland, and for either men or women in France. But the shame that the shoeless feel when appearing in public in a society in which wearing shoes is part of social custom is not relative; they are not more ashamed than others. It is an absolute deprivation.[21] Bathrooms and telephones were once luxuries, but mot Americans consider them now necessities. Peter Townsend reports that it may be impossible to avoid shame in the nineteen eighties in London if one cannot give one's children treats.[22] These feelings might in turn derive from a sense of lack of participation in community life (social exclusion), or a lack of self-respect.

To view shame in the face of others possessing more goods as an absolute form of poverty leads, however, to somewhat odd conclusions. As Robert H. Frank has noted, "we may be prepared to believe, on the one hand, that the millionaire bond trader Sherman McCoy and his wife in Tom Wolfe's novel Bonfire of the Vanities, really do require a chauffeur and limousine in order to transport themselves without shame to a dinner party just a few blocks from their apartment. On the other hand, few of us would feel comfortable calling them impoverished if they were suddenly deprived of their car and driver."[23]

This view of shame also leads to odd remedies. They may lie more in the realm of psychology than of economics. Educating people not to be ashamed when they do not have shoes (or linen shirts, another example of Adam Smith's) but

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[i] Antonia Fraser Marie Antoinette: The Journey Nan A. Talese/Doubleday 2001.

proudly to display their different life style, as the members of the German Wandervogel did before the First War, or the hippies more recently, is one cure. Or it may become possible to reduce such forms of absolute poverty by taking the shoes or the linen shirts away from the better-off, or by imposing a heavy tax on shoes and linen shirts.

In view of the fact that absolute poverty is partly a function of average living standards, it is clear that "absolute" does not mean fixed in time. The absolute level of poverty can rise, as incomes increase. The capability of appearing in public without shame, of participating in the life of the community or of maintaining self-respect will vary with the conventions, regulations, and material comforts of a society.

Fred Hirsch in his book Social Limits to Growth [24] analyzes positional goods. The absolute enjoyment of an uncrowded beach depends on the relatively superior knowledge, compared with that of others. Here again, it is absolute deprivation that is a function of a relative advantage. But it has always seemed to me that Hirsch drew excessively gloomy conclusions from the existence of positional goods. Many people enjoy crowded beaches. And not everyone wishes to become a Field Marshall. One of the happiest days in my life was when I was promoted from Private to Lance Corporal.

If, for the moment, we confine our attention to the head-count measure of poverty (we shall see that other dimensions are also important), the next question in assessing the fate of the poor is whether the absolute number of poor or the proportion of poor in the total population (the head-count ratio) has increased. With rapidly increasing populations, it may be thought that the concept relevant to judging the success of strategies in eliminating poverty should be the proportion of poor. It may also be asked, as discussed above, whether the members (and families) of the groups of poor people have largely remained the same or whether their composition has changed?

Measures of poverty

Next we must ask how do we proceed from money income shares or income levels, on which we have plenty of data, but which are largely irrelevant, to real income shares or levels, which are more relevant to assessing inequality and poverty? Ideally, we should have an index for the minimum needs cost of living, allowing for price changes and consequential substitution between items in the basket. Together with other indicators, discussed below, we might then make estimates of what Seebohm Rowntree,[25] at the turn of the century, in his research on poverty in York, called primary and secondary poverty. Minimum needs bundles, stipulated by nutritionists or other outsiders, are seldom sensible and often not feasible. But if we cost actual bundles bought, the question arises whose cost of living should be used: that of the poorest, the poor, or those on the borderline? It has been argued that the poorest are always in poverty, those above the borderline almost never, and that it is the cost-of-living of those on the borderline that matters.

Primary poverty is defined as the inability to command enough income (or expenditure) to buy the bare necessities of life. This poverty line is usually constructed by estimating the cost of a minimum diet of essential food items and the fuel needed to prepare it. This can be done either in a rather mechanical way, by calculating the cost of a strictly minimum needs diet; or it can be done better by allowing for the behaviour of actual consumers and observing how they spend their money on food. First, we calculate what an appropriate, minimum necessary diet would cost. Then we observe that non-food essential items such as clothing and lighting absorb about 20 per cent of income. This has been found to be the irreducible minimum of expenditure other than food. Next this is added to the expenditure on food.[26]

There is an inconsistency in this way of arriving at a poverty line. The minimum food requirements are derived normatively, by calculating how much the minimum food requirements would cost; while the non-food items are determined by observing how much people actually spend. In order to remove the inconsistency, we would have to assume that what people actually happen to spend is what they need to spend on non-food items, clearly an unrealistic assumption. It might well be that, if the non-food items were also determined normatively, the poverty line would be quite different, probably higher.[27] On the other hand, the poverty line does not comprise public services that are free, such as education and health services.

Since the needs of children are less than those of adults, (and since there are economies of scale in food expenditure in households) we should calculate the income (or consumption) per adult-equivalent. This would indicate the shortfall of income (or consumption) for a typical member of that group, e.g. a member of a household of a given age- and sex-composition to obtain the required amount of calories. We then count the number of people falling below this line, and find the ratio of these to the total population. This is the head-count ratio. But this ratio tells us neither how far below the poverty line the poor are, nor how poverty is distributed among them. Therefore, in addition the income-gap measure has been used. It measures the average income shortfall of all the poor as a proportion of the poverty line. But these two measures do not tell us how poverty is distributed among the poor. A. K. Sen has added a measure of the distribution of poverty among those below the line.[28] "One gets a measure of poverty $\underline{P}$ that depends on three parameters, viz., the head-count ratio $\underline{H}$, the income-gap ratio $\underline{I}$ as a proportion of the poverty line and the Gini coefficient $\underline{G}$[29] of the distribution of income among the poor:

$$\underline{P}=\underline{H}[\underline{I}+(1-\underline{I})\underline{G}]$$"[30]

A criticism of this measure of poverty is that the weights used for the shortfall from the poverty line depend on the rank order that a poor person occupies among all the poor. The severity of someone falling by $ 1000 short of the poverty line depends on how many poor are ahead of him or her. "Imagine a parade in which everyone walks past in order of their income; what the rank order measures is how far you are from the person just at the poverty line." This introduces an element of relative deprivation (though within the poverty range) into a measure of absolute poverty.[31] Sen argues in defense of this that "the lower a person is in the welfare scale, the greater his sense of poverty."[32]

Another possible criticism of measures such as Sen's and other similar scalar measures of poverty is that they are trying to catch too much in a single indicator, valid for all dimensions of poverty, for all countries, at all times. The ability to present a single figure has great attractions, but also costs. Some might prefer to disaggregate different dimensions or aspects of poverty and present them distinctly. Sen, normally the distinguished distinguisher, becomes here a lumper.

Disaggregation could be done by a vector measure of poverty, such as the "lack of satisfaction of basic needs." People are asked about some aspects of basic needs: e.g. for education, the questions are about access to primary schools, level of education of the head of the household, dependency ratio, etc. For shelter, the questions may be about overcrowding, the quality of water, access to sanitary facilities, the precariousness of the residential structure, etc. Similar questions may be asked about food, health, clothing, fuel or transport. If the answer to <u>any one</u> of these questions shows an inadequate level, basic needs for that household are not satisfied and it is counted as poor. This multidimensional measure does not allow for substitution between different basic needs.

Secondary poverty Rowntree defined as a situation in which real incomes are adequate to buy the minimum needs basket, but for one reason or another (he identified drink, gambling and inefficient housekeeping) the poor do not spend the money on satisfying these needs. Primary poverty is in<u>suff</u>icient resources, secondary is in<u>eff</u>icient use of adequate resources. The distinction gained in sharpness when A. K. Sen analyzed the standard of living as "capabilities" and "functionings," which refer to the capacity to convert resources into well-being. Primary poverty refers to lack of resources, secondary to a flaw in the conversion mechanism.

In getting at primary poverty, money income has to be corrected for price changes. General consumer price indexes may not be relevant to determining the price changes of the goods bought by the poor. There are five distinct issues.

First, in developing countries, even more than in developed countries, different groups do not face the same prices for the same goods. The urban cost-of-living is higher than the rural, and costs vary from region to region. For this reason money income shares deflated by a general urban price index may overstate inequalities and rural poverty. Food in rural areas is between 5 and 15 per cent cheaper than in urban areas. Unfortunately, lower average rural incomes more than compensate for this effect and raise the incidence of poverty in rural areas.

Second, different groups consume different goods, and the same goods in different proportions. Prices do not change in the same proportion for all groups. Food forms a higher proportion of total expenditure for the poor (and within food, coarse grains), and if its price rises by more than average prices (and that of coarse grains more than those of other food items), poverty is underestimated by money income shares deflated by a general price index (or by a general food price index). The same problem arises for both cross-section and time series data.[33]

Third, as different prices change in different proportions, consumers will substitute cheaper food items for more expensive ones. Ideally, the new basket bought should be the basis for calculating changes in real income.

Fourth, we have already seen that with rising average standards certain items, especially important to the poor, may cease to be available and be replaced by more expensive items; and the same items may be subject to more sophisticated treatment through more packaging, a higher degree of processing, advertising, or types of "improvement" which raise their costs to the poor, especially the urban poor and subsistence farmers switching to cash crops and beginning to be dependent on market purchases.

Fifth, some goods and services are provided free to the poor, but they are rationed. If, for example, health services are provided without a monetary charge, but the queuing time at the clinic has lengthened, this is equivalent to a rise in the price of these services. Such changes do not show up in price indexes.

The removal of seven veils

In trying to measure poverty we may envisage the process as the removal of seven veils. The removal of each veil gets us nearer the facts that we want to measure, but the outer veils are not therefore unnecessary. First, there is money income, which does not reveal anything about changes in the prices of the goods and services bought.

Second, there is real income, adjusted for changes in the general price level. This is the measure most commonly used. But it is an average for the country as a whole and still conceals the fact that different groups and localities are faced with different prices.

Third, there is real income adjusted for the region-specific, and commodity-specific purchases of the poor, and for the non-availability of important items. Compared with the money and effort that have gone into calculating international purchasing power comparisons, rather little has gone into comparisons of purchasing power of different income groups. But even the measure of real income has certain defects. It ignores the welfare derived from leisure. Attempts to estimate the value of leisure run into problems about what value to attach to it.

The concept does not always include non-marketed and non-priced subsistence income, such as that from crops grown and consumed within the household, or the substantial services rendered by housewives. Sometimes attempts are made to impute these. It fails to account for free social services and the benefits from pure public goods that are non-rivalrous in consumption. And, if presented as an average for an income group (the nation, a province, a region, or the household), it fails to account for distribution. To some extent this deficiency can be overcome for national figures by using not the mean, which is biased upwards by the few very large incomes, but the median or the mode, though reliable figures on these are rarely available. Life expectancy can also be incorporated, by giving not average annual income, but average lifetime income.

Two societies, or two income groups, may enjoy the same average annual income, but in one people live, on the average, to age 50, in the other to age 75. (On the other hand, the use of lifetime income as a measure of well-being is open to the objection that it implies a trade-off between money and life. Two societies would show the same lifetime income in one of which people lived to be 80 and had an annual income of $ 20,000, while in the other they lived only to be 40 but enjoyed an annual income of $ 40,000.) While some of these distributional and social considerations can therefore, in principle, be incorporated in average real income per head of the income group, or the socio-economic group, there are many important aspects that remain concealed.

Fourth, there are direct measures of physical inputs to meet basic needs, such as calories consumed, yards of cloth bought, cubic feet of house room occupied, hospital beds available, school enrollment, letters posted, etc. These are still instruments or means, but they penetrate behind the veil of money and identify "characteristics" of commodities and services. A measure of dietary energy intake relative to requirements (not easily determined) would be a good scalar measure of nutritional status, if supplemented by the type of impact indicator of basic needs discussed under the fifth heading, such as infant mortality, literacy and morbidity. "There is a strong case for using adequate food as the scalar indicator, at least for the presence of ultra-poverty. That is not because people, children or households "live by bread alone." It is because "access to adequate sources of nutrition" turns out to be a very good, and in a sense self-weighting, summary of what most people mean by absence of ultra-poverty: health, shelter, education, even mobility, are all reflected in nutritional status, although not in a linear or otherwise simple way."[34]

This measure of adequate access to food is a particularly good indicator of ultra-poverty, of the standard of living of the poorest of the poor. They spend about 80 per cent of their income on food, and this proportion does not decline when their incomes rise, as it does for those above the ultra-poverty line. The Engel curve, viz. the declining proportion of income spent on food as income rises, (and the Bennett curve, viz. the declining proportion of food consisting of starchy staples, such as cereals and roots) begins to register only above the range of ultra-poverty.[35]

Fifth, there are impact measures of health, mortality, literacy, morbidity, which register "capabilities" or "functionings."[36] Weight for age or height for age (in children) and weight for height (in adults) are anthropometric measures trying to get at one purpose of nutrition: the full, healthy development of the body. These measures look behind income and what it is spent on, at the inputs in relation to requirements, and the skills and abilities of converting goods and services into human well-being or functionings. One may have more money and more food than another, but be more undernourished because she has parasites in her stomach, or is pregnant or lactating, or has to work harder collecting water and wood, or lives in a colder climate, or has a higher metabolic rate, or a larger body. Or, having less education, she may marry earlier, produce more children, and thereby raise the food requirements of the household. The impact is, moreover, determined not only by income and the ability to convert what it buys into nutritional status, but also by social services, provided free of charge.

Not only are figures for average income (or expenditure) per head not very closely correlated to these human indicators, so that quite low-income countries perform well, while some high-income ones perform poorly, but the International Food Policy Research Institute in Washington among others has done a good deal of research on how specific groups of small farmers and landless laborers change their nutritional status as their incomes rise. In some cases nutritional status drops as households enter into commercial transactions and their incomes increase, while they produce less of the subsistence crops. On the other hand, on the whole different basic needs indicators are very highly correlated with one another, so that recording the composition of poverty is less important than its level.

The nexus between income (or expenditure) per head and nutritional status is stronger in some areas of the world, such as South and East Asia (but not parts of West Asia) and weaker in others, such as Africa. The precise reasons for this are a matter for research, but it is plausible to assume that factors such as education (particularly in health and hygiene), infrastructure, such as safe water and sewerage, and the distribution of power within the household, between men, women and children, are important components. Clearly, this is a very important question for policy, because the answer to the question of the nexus will determine whether opportunities to earn income or the provision of public social services should have priority.

Finally, as we have already seen, much of the information on income and consumption and their impact is based on the household as the unit of observation. Removal of the sixth veil would reveal the distribution of the benefits from basic necessities and services <u>within</u> the household and show the impact on specific individuals, adults and children, men and women, able-bodied and disabled. As has been argued above, consumption per head is a better measure than consumption per household, where such figures are available. At least for Africa, there is no evidence that women or children are discriminated against inside the household. Amartya Sen has suggested that India could learn from Africa how to reduce the "gender-bias" against women, which produced "30 million missing Indian women," who would be living now, if African practices and attitudes to women prevailed in India.[37]

If food is scarce, it is sensible to provide the chief bread-earner, who has to work harder, with an adequate diet, even if this is at the expense of other members in the family; otherwise everybody will lose.

So far we have assumed that the numerator is income or physical quantities and the denominator of these indicators is the number of persons, so that we get measures of income, or of food "per head." But not all persons have the same requirements. The correct indicator is "adult equivalent," so that we can allow for the fact that children need less food than adults. This is, of course, quite independent of the question of whether some members of the household get less in relation to their requirements.

The Human Development Index: virtues and faults

The Human Development Reports 1990-1997 of the United Nations Development Programme have presented the Human Development Index (HDI). A single indexes is useful in focusing attention and simplifying the problem. It has considerable political appeal. It has a stronger impact on the mind, draws more powerfully public attention, than a long list of many indicators, combined with a qualitative discussion. It is eye-catching. The strongest analytical argument in its favor is that it shows up the inadequacies of other indexes, such as GNP, and thereby contributes to an intellectual muscle therapy that helps us to avoid analytical cramps. It can serve as a mental finger exercise. It refocuses our attention from one set of items to others, in the case of the HDI to the social sectors: nutrition, education and health. But it should always be remembered that human development is a much richer concept than what can be caught in any index, whether GNP or HDI.

The Human Development Index comprises (1) the logarithm of GDP per head, calculated at the real purchasing power, not at exchange rates, up to the international poverty line; (in subsequent Reports after that of 1990 this was modified in various ways); (2) literacy rates (and, since the 1991 Report, mean years of schooling); and (3) life expectancy at birth. These disparate items are brought to a common denominator by counting the distance between the best and the worst performers and thereby achieving a ranking of countries. Critics have said that not only are the weights of the three components arbitrary, but also what is excluded, and what is included.

As we have seen, one of the great drawbacks of average income per head is that it is an average that can conceal great inequalities. But, it may be objected, the components of the Human Development Index, namely life expectancy and literacy, are also averages. They can conceal vast discrepancies between men and women, boys and girls, rich and poor, urban and rural residents, different ethnic or religious groups. The HDI has in fact been illuminatingly disaggregated by sex, region, and ethnic groups for a few countries, where data were available. The HDI has also been adjusted for sex-disparities. This is done in the following way. First, the HDI ranking is adjusted by expressing the female values of each component of the index as a percentage of the male value. These percentages are calculated separately for income, educational attainment and life expectancy and then averaged. The country's general HDI is then multiplied by this factor to yield a sex-disparity-adjusted HDI figure. (The Human Development Report calls this the Gender-Related Development Index or GDI.) This procedure makes a considerable difference to the rankings of countries. Japan moves down from 3 to 19, Canada from 1 to 9, Switzerland from 2 to 17, and Hong Kong from 22 to 30. On the other hand, Sweden moves up from 4 to 1, Denmark from 15 to 4, Finland from 16 to 3, and New Zealand from 18 to 8.

One problem with the GDI is that we have to decide on the trade-off between male-female equality against greater, though unequal, achievement. Assume two countries, A and B. In country A male literacy is 80 per cent and female is 70 per cent. In country B male literacy is 50 cent and female is also 50 per cent. The ranking of these two countries will depend on how much we value equality per se against higher, though unequal, achievements of both groups.

The 1995 Human Development Report proposes also a Gender Empowerment Measure (GEM). It contains three variables that reflect the economic, political and managerial participation by women and men: the share in the national income, the share of professional jobs and managerial positions, and the share of parliamentary seats and Cabinet ministries. Percentages bring the three dimensions to a common denominator. The index gives a picture of the participation of women in publicly recognized activities.

Disaggregation by other categories is also possible. Disaggregation by income groups, by residence (urban, rural), by ethnic groups, by region and by continent was done. Where data were available, the HDI was adjusted for income distribution either by using the Gini coefficient or the share of the bottom and top 20 per cent of the population in total income. The Human Development Report 1993 disaggregated the HDI for a small group of countries by ethnic groups and regions. One of the results was that it predicted the troubles in Mexico in the southern state of Chiapas.

It combines deprivation in life expectancy, literacy and minimum decent income, based on purchasing power comparisons. A minimum value and an adequate value are specified for each of the three indicators. These are the end-points of a scale from one to zero for each measure of deprivation. Placing a country at the appropriate point on each scale and averaging the three scales gives its average human deprivation index, which, when subtracted from one, gives the human development index.[38]

By and large, different basic needs indicators tend to be highly correlated with each other, so that only one, say life expectancy, is needed and the HDI is then unnecessary. But if in a society literacy indicators are good, while health is poor, we should, for many purposes, want to know why, not blur the difference by a single index. The index is therefore either unnecessary or undesirable. The equal weights given to the three components are arbitrary. The same criticisms can, of course, be made of the GNP as a measure of welfare. When the consumption of whisky by the rich, goes up and that of milk, by the poor, down, the GNP figure may register an increase. But such inadequacies of the GNP measure were precisely among the reasons why we had to complement it by physical and impact indicators. And it could be argued that it is better to be vaguely right with the HDI, than precisely wrong with the GNP. But with only three indicators, disaggregation is both easier and more illuminating than with the large number that go into the GNP. This is quite independent of the question as to whether prices -- market prices or shadow prices -- are a good set of weights with which to aggregate gross national product.

The HDI does not include any measure of basic needs such as leisure, security, justice, freedom, human rights, etc. It would be possible to register a high HDI in a zoo or even a well-run prison. And, although at low incomes illness often leads to death, the HDI has no independent indicator of morbidity, absence of which is surely one of the most basic of needs. Life can be nasty, brutish and long.

An alternative approach to that of looking for a single indicator is to use life expectancy as an integrating concept for human, social and demographic analysis.

Sir Richard Stone and Dudley Seers have pioneered this system of accounts. The essence of this method is to express the life-time chances of different groups with respect to schooling, unemployment, illness, marriage, migration, etc. We can then say how many years (or months), on the average, a group spends in pre-school, primary, secondary, tertiary education; at a technical college, at a university; how many regularly employed, how many unemployed, how many on holidays, how many in retirement, pensioned, unpensioned; how many in a particular town, region or country, and how many outside it; we can add to these the months spent in hospital, or sick at home, or on a psychiatrist's couch or in prison; how many in a first, second, nth marriage, how many single, divorced, widowed. By following a cohort through a sequence of such states we can estimate the probability of transition from one state to another, for which data are more readily available than for the length of stay in the state. Such life-time profiles are useful supplements to income per head. Thus, for example, Dudley Seers' unfinished article[39] showed that a male born in Great Britain in 1971 could look forward to 68.9 years of life, during which 12.2 years would be spent in school, 41.3 years employed or self-employed, 2.7 unemployed. This profile could then be compared with profiles of those born in Brazil, Malaysia, Hong Kong, and with the profiles of different social classes, by sex, in Britain.

Self-assessment

A serious shortcoming of all measures so far discussed is that they do not view poverty from the point of view of the poor, but apply external, professional standards to it. A quite different approach to assessing poverty is to ask people how miserable they perceive themselves to be. Such questionnaires can take different forms. For example, a sample of households may be asked not only what they consume but also what they consider an adequate level of consumption to be for different goods. Or people could be asked whether they think their income is too low, just adequate, or more than enough.[40]

Psychologists have not found a high correlation between such indices of satisfaction and some of the previously discussed measures of poverty. They have also found people at all income levels declare that about the same additional percentage of their actual income would be required to meet their needs and make them satisfied.

In re-surveying villages in Gujarat after twenty years N. S. Jodha found that the households whose real income per head had declined by more than five per cent were, on the average, better off on 37 of their own 38 criteria of well-being.

Besides income and consumption, they were concerned with independence, especially from patrons, mobility, security and self-respect.[41] This should serve as a warning against attempting to simplify measures of poverty into single indicators, especially those relying on income and consumption, and against relying solely on quantitative indicators. Any attempt to understand poverty must include the way in which poor people themselves perceive their situation.[42]

Participatory Poverty Assessment has won increasing support recently. In the participatory approach to poverty measurement the voices of the poor are made audible. Robert Chambers writes "I had been astonished by the analytical abilities of poor people. Whether literate or not, whether children, women or men, they showed that they could map, list, rank, score and diagram often better than professionals."[43] Various methods are used, "including role playing, participatory public meetings, social mapping, participatory diagramming, modeling and scoring, contrast comparisons, card sorting, livelihood analysis, etc."[44]

There are numerous non-material or not readily measured benefits, often more highly valued by poor people than material or measurable improvements. Among these are adequate leisure and satisfying forms of its use, satisfaction from work, good working conditions, freedom to choose jobs and livelihoods, self-determination, personal security, social recognition, self-respect, liberation from persecution, humiliation, patronage, oppression, violence and exploitation, the assertion of traditional cultural and religious values (often the only thing a poor person can assert), empowerment or access to power, recognition, status, independence, freedom, autonomy, mobility, a sense of purpose in life and work, the opportunity to join and participate actively in voluntary societies and social activities and in decisions that affect people's life and work, in a pluralistic civil society, with institutions that are layered between the individual and the central government and the opportunities to develop fully the personality of every human being born into this world.

Some of these dimensions of poverty have been recently analyzed under the heading "social exclusion." The British Labour government has announced at the end of 1997 that a high-profile Unit on Social Exclusion will be set up within the Cabinet Office and ministerial speeches regularly commit the British Government to combating social exclusion. The London School of Economics has set up a new Research Centre for Analysis of Social Exclusion and Harriet Harman, the Minister launching the project, described social exclusion as the Government's "big issue." On the Continent of Europe, social exclusion has been discussed for some time.

The notion of social exclusion is one of the most exciting developments in understanding poverty. It is an attempt to get away from a narrow definition of poverty as low incomes (and of the idea of its removal by handing out cash to the poor) and invites us to look at the dynamics of poverty. The poor of today are not necessarily the same as the poor of tomorrow. Some neighborhoods recover from decay and unemployment, while others are in a spiral of decline.[45] The dimensions of social exclusion cover incomes and employment, families and family change, and areas and neighborhoods. Why are some people unable to participate in the economy and in civil society, and what factors and institutions promote recovery and inclusion?

In order to make good sense of exclusion as a concept different from income or consumption poverty at least one of three conditions would have to be fulfilled. Either exclusion must cover, at least partly, different conditions from those of poverty, so that there are some non-poor who are excluded and some poor who are not excluded. Or the mechanisms and institutions of being pushed into poverty and/or social exclusion or staying in it must be different from those normally discussed by analysts of poverty. Or it must point to additional dimensions of poverty otherwise ignored or neglected such as ethnicity, gender, the precariousness and insecurity of work, vulnerability, physical weakness, powerlessness, discrimination, humiliation, or psychological factors such as stress or other dimensions not reflected in low incomes. For example, women in a society may have adequate incomes and food but may be deprived as a result of excessive work loads, social subordination and reduced life expectancy. Social exclusion is not only a labor market problem but can be manifested in many other ways. The objective of policy in these cases would be to reconnect people who are outside society's network, to restore them to full citizenship with a sense of self-worth. In trying to find pathways towards inclusion, it points to helping people to get work rather than handing out benefits, a philosophy of the "hand-up not the hand-out."[46]

The objectives mentioned above, from satisfying work to self-respect to security and autonomy, are all important, and they are valued both in their own right and as means to satisfying and productive work. Many of these can be achieved in ways that do not increase the measured production of commodities, while a high and growing national income, even if properly distributed, can leave these basic needs unsatisfied. No policy maker can guarantee the achievement of all, or even a majority of these aspirations, but policies can create the <u>opportunities</u> for their fulfillment. An important aspect of anti-poverty policies is to provide future generations with at least the same opportunities as the current generation enjoys. In assessing and measuring successes or failures in the pursuit of these objectives, it is important not to fall victim to the twin fallacies that only what can be counted counts, and that any figure, however unreliable, is better than none.

Sceptics have said that the popularity of the term "social exclusion" has more to do with its rhetorical-political than with its analytical uses. It may become one of the rare examples of westward transatlantic transmission. Ronald Dore writes: "It carries hints of the fact that the poor can turn anti-socially criminal if not attended to. Also, in Britain, it's a way of tackling welfare dependency -- or rather the blithe acceptance of welfare dependency as a way of life -- without crassly blaming the dependents...I gather that the London School of Economics research unit is concentrating on housing estates and mean of preventing them from being ruled by vandals, hoodlums, drug-pushers and worse even though half their inhabitants are unemployed -- which in itself is an admirable, and, it appears, potentially useful activity."

Amartya Sen has argued that neither states of mind, the utilitarian measure, nor characteristics of commodities, the Gorman- Lancaster measure,[47] but human capabilities (potentials) and functionings (actuals) are at the heart of our poverty and welfare concerns. A person (particularly in some cultures a woman) may be miserably poor, but not feel deprived. There is a character in one of Anita Brookner's novels who is so modest that she does "not even presume to be unhappy."[48] Susan Minot in her novel Folly writes of a woman who "not only...did not think of making certain choices herself, she was completely unaware of having the desire to do so." In parts of India, women and girls report much less frequently than men and boys of being ill. Or the person may enjoy adequate food, but be too ill to absorb it or too uneducated to prepare it nutritiously or share it among fewer children. The ability, or capability, not only to keep alive, but also to be well nourished, healthy, educated, productive, fulfilled, these are the objectives of good policy, and incomes or the goods they buy or the conscious utility derived from them are only certain types of instrument to achieve them.[49] None of these considerations means that income and consumption are not important as indicators of poverty. But they are not sufficient.

Policy issues are not the concern of this paper. But there is one issue that is directly related to the concept and measurement of poverty; it is how to monitor success in poverty reduction resulting from the policies of aid donors. Ideally, donors would like to know changes in the number of poor people, in the severity of their poverty, in the length of time they are in poverty, in the changes in the impact on health, education, population growth, work performance, etc., and in the costs of the remedies.

Before suggesting measures that can serve the desire of donors to monitor poverty reduction, it is useful to remind ourselves that perceptions, and therefore indicators of poverty, may not be the same for donors as for recipients. We have seen that there are women, so modest that they do not even presume to be unhappy or ill, as surveys in India have shown. The same may apply to low castes, to underclasses, or to other groups whose welfare is valued less in the society concerned than it is by the donors. This differential valuation may even be shared by these neglected or oppressed groups. The notion that each should count for one, and no one for more than one, is not universally accepted. Such differences may give rise to conflicts.

In the light of the foregoing discussion I would propose three measures. First, income or expenditure or consumption per head or, better, per adult equivalent; per household figures should be used only if nothing else is available. Consumption has the drawback that it leaves out savings, and therefore potential future consumption, but is, at any rate for low-income people, preferable to income. Then a poverty line has to be defined, so that those below this line are counted to be in poverty. For the purpose of combining the dimensions of poverty as measured by income or consumption into a single figure, the Foster, Greer, Thorbecke index is probably for practical purposes the most useful. It combines the head count ratio, the proportionate shortfall of the average poor person below the poverty line, and a poverty aversion parameter that gives greater weights to the poorest of the poor.[50]

Second, calories per head or, better, per adult equivalent, in relation to calorie requirements, as laid down by some reliable organization, such as the World Health Organization. The needed data for this measure are fewer than for income or expenditure, but greater than for food consumption per head (allowing for different prices), which might be a substitute for calories. The data are also often more reliable. But they are inadequate by themselves, partly because the requirements standard is controversial, and partly because they do not account for important other dimensions of poverty than food.

Third, the proportion of income or expenditure spent on food. A proportion higher than, say, 75 per cent indicates poverty, and an unchanging proportion with growing income, ultra-poverty. Since this ratio rises with family size, there is no need to adjust it for household size or other household characteristics.[51]

If these three indicators yield roughly the same number and groups of poor people, confidence in the estimate is justified. Unfortunately, it is likely that the three indicators will identify different groups of people as poor. If this turns out to be the case, greater scrutiny of the data and search for additional data is indicated. Among these would be anthropometric measures such as weight for age or height for age of children between birth and nine years, or weight for height, for countries or regions in which undernutrition and poverty are likely to be related. In other countries various other basic needs indicators may be in order, such as school attainment, literacy rates, floor area per head, land area per head, etc. Over longer periods it is in any case useful to supplement these measures by indicators of changes in life expectancy of the poverty groups or, if unavailable, of the population as a whole, and of changes in the ratios of men to women.

A crude but simple indicator for which data are normally available is the price of some staple food in relation to the money expenditure on consumption (or the money income) of poor people. There is clearly a trade-off between accuracy and costs of gathering indicators. The cheapest indicators are likely to be the least accurate.

A 17-year study of lifetime earnings by the Federal Reserve Bank of Dallas found tha only 5 percent of people in the economy's lowest 20 percent failed to move to a highe income group. In a similar study by the Treasury Department covering 1979 to 1988, 86 percent of Americans in the bottom fifth of income earners improved their status. New York Times W. Michael Cox and Richard Alm "Why Decry the Wealth Gap?" OP-ED Monday January 24 2000 p. A25.

Washington Consensus: macroeconomic stability, domestic liberalization, privatization and a search for market solutions in the provision of public goods. Also policies such as the removal of barriers to international trade and liberalization of short-term portfolio flows, that accelerate the pace of globalization. Has contributed to widening inequalities between and within countries.

1997 UNCTAD study covering 124 countries (94% of world population) found that the income share of the world's richest one-fifth rose from 69% in 1965 to 83% in 1990.

Inequality is affected by traditional factors such as land concentration, dominance of natural resources, unequal access to education, and urban bias in pricing policies,

allocation of public expenditure and investment, etc. New factors are technological (demand for high skills) and policy-related changes.

The assets of the three richest people in the world exceed the combined GDP of the world poorest 43 countries. US 80 billion, only 10% of world military spending, would be enoug to provide basic social services and an income above the poverty line to the poorest peopl

[1]World Bank, Implementing the World Bank's Strategy to Reduce Poverty: Progress and Challenges Washington, World Bank, 1993, quoted in Bob Baulch, "The New Poverty Agenda: A Disputed Consensus," IDS Bulletin Volume 27 Number 1 January 1996, p. 1.

[2]See Michael Lipton, Demography and Poverty, World Bank Staff Working Papers Number 623, 1983, pp. 58-61 and G. Datta and J Meerman, Household Income or Household Income per Capita in Welfare Comparisons, World Bank Staff Working Paper Number 378, Washington D.C. 1980.
[3]To correct for these two factors, household equivalent scales have been suggested. These give lower weights to additional household members (e.g. children) when dividing the value of household expenditure by household size. See Angus Deaton and John Muellbauer, Economics and Consumer Behaviour, Cambridge University Press, Cambridge, England, 1980 and "On Measuring Costs: with Application to Poor Countries," Journal of Political Economy, vol. 94, No. 4, 1986.
[4]The Economist, December 6th 1997, p. 60.
[5]See below.
[6] The example is taken from Brian Barry, "Claims of Common Citizenship", The Times Literary Supplement, London, No 4,47, January 20-26 1989, p. 52. The article is a review of Henry Phelps Brown, Egalitarianism and the Generation of Inequality, Clarendon, Oxford, 1988, where a similar example is given.
[7] For a discussion and considerable evidence on this, see Michael Lipton, Demography and Poverty, World Bank Staff Working Papers Number 623, Washington D.C. 1983, pp. 54-57.
[8]See Michael Lipton, "Who Are the Poor? What Do They Do? What Should They Do?" Lecture to the Center for Advanced Studies in International Development, Michigan State University, East Lansing, Michigan, March 13, 1988, pp, 16-18 and the references given there to Paul Schultz and R. Gaiha. Lipton distinguishes between disturbances causing temporary poverty that (a) are environmental or due to the family; (b) are predictable or irregular; (c) affect a few or entire communities.
[9] Loc. cit. p. 17. Robert Chambers writes movingly, "Among the physical factors which impoverish, accidents have been neglected, yet many of the poor are exposed to disabling accidents. Rural activities such as quarrying, mining, fishing, hunting, building, brick-making, ploughing, and herding, and urban activities -- in factories, transport and construction -- are often physically hazardous. The resulting accidents are rarely counted and little considered in the literature, yet again and again, individual case studies of destitute households reveal an accident as the event which impoverished -- disabling an adult, especially a breadwinner. At a sudden blow, the body, the poor person's greatest and uninsured asset, is devalued or ruined. From being an asset, at one stroke it becomes a liability that has to be fed, clothed, housed, and treated. A livelihood is destroyed, and a household made permanently poorer." "Editorial Introduction: Vulnerability, Coping and Policy," in IDS Bulletin, April 1989 vol 20 No 2, Institute of Development Studies, Sussex, p. 4. Misfortune can lead to permanent poverty.
[10] Robert Chambers, *loc. cit.*, p. 1.
[11]N. S. Jodha "Common Property y Resources: A Missing Dimension of Development Strategies "World Bank Discussion Papers Number 169, Washington: the World Bank, 1992; "Common Property Resources and the Environmental Context" Economic and Political Weekly vol. XXX No. 51, December 23 1995; "Studying Common Property Resources, Economic and Political Weekly, vol. XXX No 11, March 18 1995 and "Common property resources and the dynamics of rural poverty in India's dry regions" Unasylva vol. 46, 180, Rome: Food and Agriculture Organization of the United Nations, 1995-1. There are other dimensions of poverty that the income/consumption approach ignores such as lack of leisure or of non-marketed and self-produced goods or a lengthening of queuing time for rationed goods or public services such as health. Some of these are discussed below under "Self-assessment."
[12]The opposite is more difficult to establish. It might be thought that it is logically quite possible to have great inequality combined with the absence of absolute poverty. But, analytically, in such a society the relative component in poverty (or, as it is called in this context, in deprivation) will become more pronounced, and, empirically, it is not easy to think of many societies in which great inequality is combined with absence of absolute poverty. Perhaps Kuwait is the exception that tests the rule.
[13]A. B. Atkinson, Clarendon Press, Oxford, 1976.
[14]Karl Marx, "Wage Labour and Capital" in Karl Marx and Frederick Engels, Selected Works, volume 1, pp. 930-94, Foreign Languages Publishing House, Moscow 1958.
[15]Some forms of conspicuous consumption by the rich are enjoyed by those with lower incomes. The British royal family's stage coach and the gold-plated car of a couple called Sir Bernard and Lady Docker gave pleasure to readers of the mass journals. So must the pictures of the life styles of the rich and famous disporting themselves in *The New York Times'* "Evening Hours." Whether the same is true of the parties given by Mr Forbes and Mr and Mrs Steinberg is an open question.
[16]Adam Swift's review of Paul Barker, editor, "Living as Equals" (Oxford University Press, 1997) in The Times Literary Supplement, April 17 1998.

[17]A. K. Sen, "Poor, Relatively Speaking", chapter 14 in Resources, Values and Development, Basil Blackwell, Oxford, 1984.
[18]T. C. Cooper, "Poverty", unpublished note, 1971, quoted in A K Sen, Resources, Values and Development, Basil Blackwell, Oxford, 1984, p. 336.
[19]A. K. Sen, op. cit., p. 337.
[20] Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, London Everyman, Home University Library, 1776.
[21]A. K. Sen, "Poor, Relatively Speaking", chapter 14 in Resources, Values and Development, Basil Blackwell, Oxford, 1984.
[22] Reported by Geoffrey Hawthorn in Introduction to Amartya Sen, The Standard of Living, p. xi.
[23]Robert H. Frank, review of Amartya Sen, *The Standard of Living,* in *Journal of Economic Literature,* June 1989, volume XXVII, Number 2, p. 666.
[24]Fred Hirsch, Social Limits to Growth, Harvard University Press, Cambridge, Mass, 1978.
[25] B. Seebohm Rowntree, Poverty: A Study of Town Life, London, Macmillan, 1901.
[26]See V. M. Dandekar and N. Rath, *Poverty in India* (Pune: Indian School of Political Economy). The authors take data from the Indian National Sample Survey and record, for rural and urban consumers, the percentage distribution of expenditure on foodgrains and substitutes, other items of food, fuel and light, clothing and others. They find that in 1960 to 1961, more than 90 per cent of the expenditure of the poor was devoted to food sand fuel for cooking. These are the ultra-poor.
[27] The poverty line is established by multiplying the money required to buy the food basket by the reciprocal of the ratio of food expenditure to total expenditure. Since this ratio is higher, and the reciprocal therefore lower, for poor people than for the better off, if the latter ratio is chosen, the poverty line is raised.
[28] A K Sen, "Poverty: An Ordinal Approach to Measurement", Econometrica, 44, 1976.
[29]The Gini coefficient is a statistical measure of nequality. In a Lorenz curve, the Gini coefficient is the ratio of the area between the diagonal and the Lorenz curve to the total area under the diagonal. The Lorenz curve is a graphical representation of inequality. For complete equality of income the Lorenz curve is a straight line; it becomes more curved as inequality rises.
[30] Theorem 1 in loc. cit.
[31] See A. B. Atkinson, "Original Sen", New York Review of Books, vol XXXIV, Number 16, October 22, 1987, p. 43. The Foster-Greer-Thorbecke class of poverty measures overcomes several limitations of Sen's measure. In particular, it is decomposable in the sense that total poverty of a group is a weighted average of the levels of poverty of the subgroups. See James Foster, Joel Greer, and Erik Thorbecke "A Class of Decomposable Poverty Measures" Econometrica, 52 (3), May 1984, pp. 761-766, and Joel Greer and Erik Thorbecke, "A Methodology for Measuring Food Poverty Applied to Kenya," Journal of Development Economics, 24 (1986), pp. 59-74. The measure is

where n is the total number of households, gi is the income shortfall of the ith household, z is the poverty line, and q is the number of poor households below the poverty line. This measure raises the proportionate shortfall from the poverty line to a power a, the magnitude of which reflects concern for this shortfall. When a=0, reflecting no concern for the depth of the shortfall, the measure becomes the head-count ratio. When a=1, reflecting uniform concern for the depth of poverty, the measure reduces to HI, the product of the head-count ratio and the income gap ratio. When a exceeds 1, the measure can be used to show any degree of heightened sensitivity to the poorest of the poor. For certain values of a, the poverty aversion parameter, it satisfies practically every desirable axiomatic property a poverty measure would be expected to satisfy in addition to being additively decomposable, a great advantage in any empirical application. It overcomes the rank ordering limitation since, for example, for a=2, the poor are weighted according to the square of their shortfall. By raising the proportionate shortfall from the poverty line by a power x, the measure, therefore, shows heightened sensitivity to the poorest of the poor. t allows for aggregating poverty measures for different groups, for different food preferences, and for different prices. This measure has been extensively used in both theoretical and empirical applications. It has also been applied to measuring food poverty, based on typically consumed diets, in Joel Greer and Erik Thorbecke, "Food Poverty Profile Applied to Kenyan Smallholders," Economic Development and Cultural Change, vol. 35, No.1, October 1986, pp. 115-141.

[32] Michael Lipton shows that the second derivatives of the Sen index have unacceptable properties. See "A Problem in Poverty Measurement," North-Holland 10 (1985) pp. 91-97. He proposes a simple measure for the ultra-poor, among whom income cannot be very unequal and G=0, and two separate measures for the moderately poor.
[33]In rural India cereal prices for different decile groups of the population moved unequally in the Nineteenfifties and sixties. The average price of cereals has risen by more for the poor than the rich. This was due partly to higher price rises for coarser cereals, normally consumed by the poor, and partly to a shift to superior cereals in the consumption basket of the poor. See Pranab K. Bardhan, Pattern of Income Distribution in India: A Review.
[34]Michael Lipton, Who Are the Poor? What Do They Do? What Should We Do? Center for Advanced Studies in International Development, Michigan State University, East Lansing, Michigan, mimeo, pp. 6-7.
[35]Michael Lipton, Poverty, Undernutrition and Hunger, Working Paper no. 597, World Bank, 1983; Who Are the Poor? What Do They Do? What Should We Do? Center for Advanced Studies in International Development, Michigan State University, East Lansing, 1983; and Bhanoji Rao, "Measurement of Deprivation and Poverty Based on the Proportion Spent on Food", 9, 4, 1981.
[36] Amartya Sen, The Standard of Living, The Tanner Lectures, Cambridge University Press, Cambridge, 1987.
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[40] Peter Townsend, in his Poverty in the United Kingdom (1979) asked a large number of questions, ranging from basic needs to styles of living and social interaction. The response scored 0 if the reply corresponded to the social norm, and 1 if it was below it. The responses were then added up for each household and showed a strong negative correlation to income. Below a critical level of income, the deprivation score rose sharply.
[41] Robert Chambers "Editorial Introduction: Vulnerability, Coping and Policy" IDS Bulletin, April 1989, volume 20 No 2, Institute of Development Studies, Sussex, p. 2. The reference is to N. S. Jodha, "Social science research on rural change: some gaps (a footnote to debate on rural poverty)," in Pranab Bhardan, Rural Economic Change in South Asia: Methodology of Measurement. See also N. S. Jodha, "Poverty Debate in India: a Minority View," Economic and Political Weekly, Special Number, November 1988. Jodha's sample and method have, however, been questioned. For a good discussion of non-measurable aspects of poverty, see Robert Chambers, Poverty in India: Concepts, Research and Reality, Institute of Development Studies Discussion Paper No. 241, Brighton, January 1988.
[42] But a person may be miserably poor and not feel deprived. See below.
[43]Robert Chambers Whose Reality Counts? Putting the first last London: Intermediate Technology Publications, 1997, p. xvii.
[44]Paul Shaffer "Beneath the Poverty Debate: Some Issues" IDS Bulletin Volume 27 Number 1 January 1996, p.25.
[45]John Hills, "Viewpoint Social Exclusion: the content behind the babble" Social Sciences News from the ESRC January 1998, Issue 37 p. 2.
[46]See Paul Streeten "Some reflections on social exclusion" in *Social exclusion and anti-poverty policy: A debate*,edited by Charles Gore and José B. Figueiredo, Geneva: International Institute for Labour Studies Research Series 110, 1997 pp. 66-72.

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[49]Amartya Sen, The Standard of Living, The Tanner Lectures, Cambridge University Press, Cambridge, 1987 and Resources, Values and Development, Cambridge, Mass, Harvard University Press, 1984.
[50]See J. Foster, J. Greer and E Thorbecke, "A Class of Decomposable Poverty Measures", Econometrica, 1984. Additional advantages of this index are that it is decomposable by groups or regions, and that, by choosing the poverty aversion parameter = 0 it reduces to the head count ratio, by choosing it = 1, it shows the head count ratio

combined with the average shortfall below the poverty line, and by choosing it larger than one, any degree of sensitivity to ultra-poverty can be introduced.

[51]See Paul Glewwe and Jacques van der Gaag, "Confronting Poverty in Developing Countries", Living Standards Measurement Study Working Paper No. 48, The World Bank, Washington, D.C., 1988, p. 8.