# Poverty: concept, causes, consequences and computations

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## The concept of poverty in context

The fundamental goal of all human activity is the pursuit of happiness or welfare or well-being. The extent to which one can achieve this well-being depends on the amount of opportunities and choices that one is provided to engage in those activities and to acquire those things that will promote one's well-being. The more limited are these opportunities and choices, the less is the scope to achieve well-being. Hence, in order to promote well-being, there is need to expand the opportunity set and the range of choices. The process of bringing about this expansion is called *human development*.

Although the concept of human development is as old as the hills, its present-day definition was formulated by the late economist Mahbub Ul Haq and Nobel Laureate Amartya Sen under the aegis of the United Nations Development Programme (UNDP). (See UNDP, 1990). The definition is anchored on Sen's Capabilities Approach (Sen, 1985) which considers what people can *be* (e.g. well-fed and healthy, knowledgeable) and *do* what they consider desirable (e.g. acquire education, decent jobs).

In Sen's theory, the *doings* have two aspects: one, what a person is capable of doing (capability) and two, what he is actually able to do (*functioning).* For example, a person may have the necessary educational credentials (say a university degree in history and a post-graduate diploma in education) to do a certain job that he desires to do (say teach in a school); but he may not be doing that job because he cannot find one (joblessness) or, out of sheer desperation to earn some money, he works as a taxi driver. This is an example of a capability not being transformed into its appropriate functioning.

Now, just as a company can have a financial balance sheet showing assets and liabilities, one can also think of a country having a balance sheet of human development. On the assets side, one can see *progress* made in terms of opportunities and choices, and on the liabilities side, one can see *deprivation* in terms of those very opportunities and choices.

What is important to understand is that an improvement in a progress indicator need not necessarily imply a reduction in the corresponding deprivation indicator. For example, there can be growth in employment, but it need not mean that there is a reduction in unemployment. In other words, both employment and unemployment can simultaneously rise if the increase in employment is less than the addition to the labour force. Similarly, food production in a country may increase and yet, more people may suffer hunger. And so on.

Note that in the light of the earlier example given above, one can also think of deprivation as the inability to transform capability into a corresponding functioning.

This is the reason why the UNDP's Human Development Report of 1997 recommended that, in order to understand the true improvements a country is making in human development and human welfare, one has to adopt both a *conglomerative* (looking at overall progress indicators) as well as a *deprivational* ( looking at overall deprivation-related indicators) approach.

Deprivation in the multiple factors that contribute to human welfare/well-being is termed *poverty.*

## The ramifications and manifestations of poverty

It must be clarified at the very outset that poverty in the sense of deprivation must be linked to the freedom of choice. Poverty is *involuntary* deprivation. For example, if a person is jobless not because he cannot find a job but because he *voluntarily chooses* not to work, then that is not deprivation. Again, if a person stays hungry because he has voluntarily chosen to observe a period of religious penance by fasting and abstinence (Lent, Ramadan, etc.) he is not experiencing poverty. But if a person is hungry because he cannot afford to access food, then that would be a manifestation of poverty.

Poverty in the sense of deprivation basically manifests itself in the form of a *lack of access* to many things that are required for meeting basic human needs and ensuring a decent human existence. The following is a just a heuristic, and by no means comprehensive, list of such things:

- Food and nutrition;
- Health;
- Education;
- Clean water and hygienic sanitation;
- Shelter and accommodation;
- Infrastructure (transport, markets, schools, colleges, health facilities, etc.);
- Information;
- Employment;
- Money income.

Poverty therefore can manifest itself through lack of access to any one or more of the above factors. Accordingly, one may suffer *food poverty, health poverty, education poverty, water poverty,* and so on. The more the number of these factors a person is deprived of, the poorer he/she is.

Of all the above factors listed above, the most discussed factor in the literature is money income. This is because money represents general purchasing power and the ability to have access to all the other wherewithal that promote human welfare. With money, one can acquire food, education, health services, decent housing, transport facilities, information through various media and communication technology channels, etc. By corollary, lack of money can deprive one of access to any or all of these other requisites of well-being.

There are two broad approaches to gauging the extent of poverty prevalent in a country. They are the *money-metric* approach and the *non-money-metric* approach.

There are many measures of poverty based on these two approaches. In the next section, we shall discuss two prominent measures that are currently used – one money-metric and one non-money-metric - and explain how they are computed.

## Computation of poverty measures

<u>Money-metric poverty measures:</u> Income poverty is based on the formulation of a *poverty line* which defines an income threshold below which an individual or household will be considered poor. The poverty line is the minimum amount of money required to buy a basic basket of goods. One can have two poverty lines, a lower one, falling below which will define *extreme poverty* and a higher one, falling below which will define *moderate poverty.*

The usage of the above poverty lines is called *absolute income poverty*. However, in the European Union and the OECD countries, *relative income poverty* is used. The poor are defined as those whose incomes fall well below the median income of the country in question (European Union using 60% and OECD using 50% of the median income as the threshold). (See Mood and Jonsson, 2016).

We shall now explain how poverty is measured using absolute income poverty lines.

*Computations of money metric poverty measures:* Each country can define what it considers to be appropriate poverty lines in order to estimate its poverty levels.

Such national poverty lines in developing countries are often controversial since they are tinged with political considerations. In India for instance, the government has allegedly been prone to fix an unrealistically low poverty line in order to show that it has managed to reduce poverty in the country. So in 2014 there was a political hue and cry when the former chairman of India's Economic Advisory Council proposed raising the poverty line from 27 rupees to 32 rupees (53 cents) a day for the rural areas and from 33 rupees to 47 rupees (78 cents) for the urban areas. This would raise the poverty level of India from 21.9% to 29.5%. But even this proposed raise was criticized by some since it was still much less than the World Bank's then cut-off point of $1.25 a day. (See Joshua Keeting, 2014).

Currently, for purposes of international comparisons, the World Bank has prescribed $1.90 per day per person to define extreme poverty and $3.20 per day per person to define moderate poverty. The percentage of the population that falls below the poverty line defines the *incidence* of poverty. It is also known as the *headcount index* of poverty. One can then measure the incidence of overall (moderate plus extreme) poverty, moderate poverty and extreme poverty.

However, one drawback of the poverty incidence measure is that it does not consider the *intensity* of poverty. Two countries may have the same incidence of poverty but poverty intensity may be higher one country compared to the other. This is because the incidence of poverty will not change if people below the poverty line become poorer.

Hence the incidence of poverty is complemented by two other measures:

- *Depth of poverty (poverty gap):* It provides information on how far off households are from the poverty line. It is obtained by adding all the shortfalls of the poor and dividing the total by the population. It thus estimates all the income that is required to bring all the poor to the level of the poverty line.
- *Poverty severity (squared poverty gap):* This not only takes into account the poverty gap but also the inequality among the poor. That is, a higher weight is placed on those who are further away from the poverty line.

All the above measures are based on a class of poverty measures that were first proposed by Foster, Greer and Thorbecke in 1984.

<u>Non-money-metric poverty measures</u>: There have been several measures that have been used such as the UNDP's *Capability Poverty Measure, Human Poverty Index*, and so on. Other analysts have developed their own measures to estimate poverty and deprivation levels in their countries. For instance, Seshamani (2000, 2018) constructed 13 weighted indices of deprivation based on 15 variables and then derived an overall index of deprivation based on these indices. This index includes both money-metric and non-money metric variables. The index was empirically calculated for Zambia using data from the Living Conditions Monitoring Surveys.

A relatively recent and innovative pure non-money metric measure is one that was presented by the UNDP in its 2010 Human Development Report. It is known as the *Multi-dimensional Poverty Index (MPI).* It is based on multiple deprivations a poor person may face with respect to education, health and living standard.

*Computation of MPI*: The MPI has 3 dimensions: education, health and standard of living. They are measured using 10 indicators. Poor households are identified and an aggregate measure is constructed. Each dimension is equally weighted and each indicator within a dimension is also equally weighted.

A household is identified as multi-dimensionally poor if and only if it is deprived in some combination of indicators whose weighted sum exceeds 30% of all deprivations.

Data are obtained from National Household Surveys and they relate to the year in which the survey is conducted.

The following are the dimensions and indicators:

1. *Education:* Each indicator is weighted equally at 1/6.
   - Years of schooling: deprived if no household member has completed five years of schooling;
   - Child enrolment: deprived if any school-aged child is not attending school in years 1 to 8.
2. *Health:* Each indicator is weighted equally at 1/6.
   - Child mortality: deprived if any child has died in the family;
   - Nutrition: deprived if any adult or child for whom there is nutritional information is malnourished.
3. *Standard of living:* Each indicator is weighted equally at 1/18.
   - Electricity: deprived if the household has no electricity;

- Drinking water: deprived if the household has no access to clean drinking water or clean water is more than 30 minutes' walk from home;
- Sanitation: deprived if they do not have an improved toilet or if their toilet is shared.
- Flooring: deprived if the household has dirt, sand or dung floor;
- Cooking fuel: deprived if they cook with wood, charcoal or dung;
- Assets: deprived if the household does not own more than one of: radio, TV, telephone, bike or motor-bike, and does not own a car or tractor.

The MPI has great policy relevance since it identifies the specific areas of deprivation which require policy responses. These areas can vary from country to country. Two countries can have similar MPI but the areas of deprivation could be different. Likewise, even within a country, there can be significant variations in MPI. Capital cities may have a much lower MPI compared to remote rural areas.

It must be noted that people who are living in MPI poverty need not be income poor. For example, in 2010 it was found that while only two-thirds of the people in Niger were income poor, 93% were poor according to the MPI. (see Akire & Santos, 2010). On the other hand, according to the Zambia Human Development Report 2016, in 2013/14, while 64.4% were income poor, the MPI value was only 26.4%. Thus, there is no necessary correlation between money-metric and non-money-metric measures of poverty.

## The causes of poverty

There are very many causes of poverty and they vary across spatial-temporal regions. One cannot, therefore, generalize the causes of poverty. Nevertheless, one can discern certain causes that prominently feature in several countries across the world, especially the developing world. An illustrative set has been brought out by Richard Vale in a short paper. (See Vale, 2017).

Vale mentions six main causes: warfare, backward agriculture, natural disasters, centralization of power and corruption, discrimination and social inequality, and environmental degradation.

A report by Oxfam International (2018), however, attributes poverty to extreme and growing levels of inequality. "Inequality is trapping hundreds of millions in poverty", the report says. Several of the statistics provided by Oxfam in its report are grave indeed. Among them, one telling piece of data is the following:

- 82% of the wealth created in 2017 went to the richest 1% of the world's population while the 3.7 billion people who constitute the poorest 50% of the world's population got nothing.

There are of course many critics of Oxfam's position. Their main opposition is to Oxfam's description of modern-day capitalism as a "crime against humanity". They also question Oxfam's statistics based on wealth and not income and which suggest that inequality is growing. According to them there is no "inequality crisis" and that world inequality has been declining since 1980. For one such critique of Oxfam, the reader is referred to Ivo Vegter's column in Daily Maverick published on January 29, 2018.

There is no gainsaying, however, that high inequality poses a vexing problem for the achievement of poverty reduction and well-being. It militates against economic efficiency and social equity. It is a problem not only for developing countries characterized by high poverty levels but also for many developed countries. Nobel Laureate Joseph Stiglitz (2011) described the American economy as an economy "of the 1%, by the 1% and for the 1%". The flipside of such inequality, according to Stiglitz, is shrinking opportunities which prevents people from being used in the most productive way. Consequently, the top 1% are seeing their incomes rise, while the middle class are seeing their incomes fall.

In fact, it is this high inequality in the United States that has resulted in more relative poverty in that country than in other Western countries. In the late 2000s, 17.3% of US households lived in poverty compared to an average poverty rate of 9.5% in most countries in Europe. (See OECD, 2011).

## The consequences of poverty

Like the causes of poverty, the consequences of poverty are also very many. There is extensive literature on this topic. Here we shall only have a brief discussion by alluding to some of the latest writings.

The main consequences of poverty are social. Mood and Jonsson (op. cit.) state: "the poor are under risk of exclusion, of losing their social status and identity, and perhaps also, therefore, their friends". Further, poverty results in a lowering of self-esteem and in lack of participation in decision-making and in civil, social and cultural life. Mood and Jonsson show this to be the case for Sweden, using longitudinal data from the Swedish Level-of-living surveys for 2000 and 2010.

Other social consequences, especially in developing countries, mentioned in the literature (see for example, Lindsey, 2009; Ratcliffe and McKernan, 2010; Sanders, 2011) are:

- Poor people are more likely to have family problems, including divorce and family conflicts;
- Poor people are more likely to have several kinds of health problems;
- Poverty has lifelong consequences. In general, poor children are more likely to remain poor as adults, more likely to drop out of high school, more likely to become teenaged parents, and more likely to have employment problems.

Poverty also entails political consequences such as:

- Mass migration occurs of populations from poverty-stricken countries to other countries in search of better living conditions;
- Poverty can destabilize an entire country. The starting point for the Arab Spring was the prevailing high levels of poverty.
- Poverty can be a cause of terrorism although the causal link is not very straightforward. The impact of poverty on terrorism is complicated and indirect.

## Conclusion

Ultimately, it must be borne in mind that although poverty reduction and its eventual eradication is one of the most fundamental goals of every country, it by itself cannot ensure human happiness. The absence of poverty in the sense of every individual being endowed with the minimum material requisites of well-being is a necessary, but by no means a sufficient, condition for bringing about human happiness. Poverty eradication measures have to be complemented by measures to promote the more intractable goals of upholding human dignity and peace, as well as eliminating: all forms of *exploitation* and *slavery* (which still exists according to recent reports, see ILO, 2017); *violence*, especially against women and children; *discrimination* based on irrelevant criteria such as race, skin colour, religion, etc.; and *stigmatization* of social groups such as LGBT (lesbian, gay, bisexual, transgender) and PLWA (persons living with AIDS).

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