POVERTY: DIMENSIONS AND PROSPECTS

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Summary

Poverty reduction, as an overarching objective of development, has recently been adopted as an international development goal (IDG). Using the proportion of people living on less than one dollar a day per person as the measure of poverty, the international community identified the reduction of poverty by half by the year 2015 as an international development goal. The one-dollar a day per person is known as the international poverty line and the proportion of people living below this line is known as the head-count ratio. The head-count ratio measures the incidence or the spread of poverty. In 1998, available information shows that the incidence of poverty varies from a low of 5% of the population living below a one dollar a day per person in East Europe and Central Asia to a high of 46% of total population in sub-Saharan Africa.

For the developing world as a whole 24% of the population was living below one-dollar a day per person. If the poverty line is allowed to change with the level of development 32% of the population of the developing world were living below the relevant poverty line. Using recent projections it is shown that for all regions of the developing world, except for East Asia and East Europe and Central Asia it will be difficult to achieve the IDG of reducing poverty by half by the year 2015. Moreover, the quality of growth is seen to be important in view of the fact that the average income of the poor grows by less than the rate at which mean income of society grows.

1. Introduction

In their foreword to the report titled “A Better World for All” the representative of the international community declared that poverty “in all its forms is the greatest challenge to the international community. Of special concern are 1.2 billion people living on less than $1 a day and the additional 1.6 billion living on less than $2 a day. Setting goals to reduce poverty is an essential part of the way forward". The "foreword" is signed by Mr. Kofi Annan, the Secretary-General of the United Nations (UN); Mr. Donald J. Johnston, the Secretary-General of the Organization for Economic Co-Operation and Development (OECD); Mr. Horst Kohler, the Managing Director of the International Monetary Fund (IMF); and Mr. James D. Wolfenson, the President of the World Bank Group. (Interested readers could access this statement on the website: www.paris21.org/betterworld).

The international development goals (IDGs), described in the report, are based on the global UN conferences and summits held during the 1990s. The goals are identified under three broad categories: goals for economic well-being, goals for social development, and goals for environmental sustainability and regeneration. The goal for well-being is formulated as reducing extreme poverty in the sense that the "proportion of people living in extreme poverty in developing countries should be reduced by at least one-half between 1990 and 2015".

Five broad goals for social development have been identified. These include: "universal primary education in all countries by 2015"; elimination of "gender disparity in primary and secondary education by 2005"; "the death rates for infants and children under five years should be reduced in each developing country by two thirds between 1990 and 2015"; "the rate of maternal mortality should be reduced by three quarters between 1990 and 2015"; and, "access should be available through the primary healthcare system for all individuals of appropriate ages, no later than 2015".

The environmental sustainability goal requires that "there should be a current national strategy for sustainable development, in the process of implementation, in every country by 2005, so as to ensure that the current trends in the loss of environmental resources are effectively reversed at both global and national levels by 2015".

For each set of goals a number of indicators have been identified. The representatives of the international community noted in their foreword that the "goals are set in precise terms—measured in numbers to ensure accountability. The openness and transparency of such numbers can help us chart a course to achieve the goals and track progress. But people are not numbers—happiness is not a statistic. These goals are worthwhile because they will improve the quality of human life".

The $1 and $2 a day per person noted by the representatives of the international community are known in the dominant approach to the measurement of poverty as poverty lines. The 1.2 and 1.6 billion people is known as the incidence of poverty. The goals under social development have to do with looking at poverty as capability deprivation; and all the goals taken together have to do with the quality of human lives. This paper will attempt to address some of the issues involved, taking the IDGs as a reference point with respect to achieving the poverty reduction goal. The rest of this paper is organized in five sections dealing respectively with poverty measurement, dimension of poverty, prospects for poverty in terms of the feasibility of achieving the IDG on poverty; prospects for poverty in terms of the income of the poor, and some concluding remarks.

2. Poverty Measurement

Before we proceed to reviewing the dimension of poverty in the world it is perhaps important to note a number of issues on the measurement of poverty. The discussion of the issues will be selective in nature due to the vast technical literature that has developed but such discussion is, nonetheless, important to establish a common understanding. Thus, for the purposes of this paper, the most important points to note are as follows:

(a) That the most dominant approach to the measurement of poverty is the money metric approach. Under this approach, the first step taken towards measurement is to agree on a relevant measure for the standard of living. A relevant standard for countries in the developing world is per capita consumption expenditure (including the consumption of own production). In advanced countries it is income that is taken as the relevant measure of the standard of living. Given agreement on the measure of the standard of living, there are a number of methods to determine the threshold of deprivation below which a person can be identified as poor. This threshold is commonly known as the poverty line.

(b) That there is general agreement that the relevant method for determining poverty lines for developing countries is the cost of basic needs. This method involves identifying a typical diet for the poor that is necessary for leading a healthy life. Healthy life is defined in terms of nutritional requirements using the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) nutritional requirements of recommended daily allowances (e.g. 2500 kilo calorie per adult per day). Required quantities of the goods supplying the required calories are appropriately priced to arrive at a monetary value defining a food poverty line. By adding to this amount the cost of other requirements needed by individuals to live in a social context (e.g. the cost of clothing, shelter and medicine) we arrive at the poverty line. We note in passing that this method was applied rigorously since 1927, but the concept itself would be as old as when people started worrying about poverty.

(c) That while the international debate has been conducted in terms of a fixed poverty line (e.g. $ 1 dollar per day) applied to all countries, there is increasing realization that poverty lines vary among countries depending on the level of development. This is tantamount to saying that; in general, the poverty line will be expected to be a function of the standard of living.

(d) That having obtained the poverty line, an immediate measure of poverty is the ratio of the poor thus identified to the total population in society. This is the well-known head-count ratio. It is the most widely used, and easily understood, measure of poverty. Thus, for example, the international development goal on poverty is to reduce the head count ratio to half its current level by the year 2015. The head-count ratio measures the spread, or incidence, of poverty in a given society. Another useful poverty measure is the poverty-gap ratio, which takes into account the extent to which consumption by the poor falls below the poverty line. It measures the depth of poverty in a society. Using the head-count ratio and the poverty-gap ratio together one can immediately obtain the average income of the poor.

(e) That to be able to identify the poor we need information on the distribution of consumption expenditure or income, in the society. This information is usually obtained from household budget, or expenditure, surveys. Such surveys, like population censuses, are very expensive to conduct in a rigorous fashion and as a result such information is usually lacking in developing countries, especially on a time series basis (but India is an exception in this regard).

(f) That, in general, any poverty measure (call it P) could be expressed as depending on mean consumption in society and on a measure of the underlying inequality in the distribution of consumption (say, $P = P(\mu/z,\theta)$, $P = P(\mu/z, \theta)$, where μ is mean consumption expenditure, z is the poverty line and θ θ is a measure of the inequality in the distribution of consumption expenditure usually taken as the Gini coefficient). As per capita consumption increases (poverty line declines), other things remaining the same, poverty declines. Similarly, as inequality in the distribution of consumption declines, other things remaining the same, poverty declines. If it is believed that the inequality in the distribution of consumption, and the poverty line, depend on mean consumption in society, then we can get a powerful, yet simple relationship between poverty and economic growth (since in this case we will have: $P=P(\mu/Z,\theta)=P=P(\mu/Z(\mu),\theta(\mu))=P(\mu)$ $P = P(\mu/z, \theta) =, P = P(\mu/z(\mu), \theta(\mu)) = P(\mu)$. This relationship says that changes in poverty over time can always be calculated as a product of the elasticity of poverty with respect to mean consumption and the rate of change in mean consumption $P^*=\beta\mu^*$ ($P^* = \beta\mu^*$, where a star denotes percentage changes). The elasticity involved, β β, is called the "growth elasticity of poverty" and it can be estimated or calculated. Such a relationship is important for the purposes of looking at the prospects of poverty.

Having noted the above on the most dominant approach to the measurement of poverty, there is also a need to note that a lot of use is made of aggregate correlates of poverty such as life expectancy at birth (as a proxy for health status in a society) and school enrolment ratios (as a proxy for educational achievements). The use of these aggregate measures can be justified on a theoretical basis by resort to Professor Amartya Sen's, (the winner of Nobel Prize in Economics for 1998), concepts of entitlements, capabilities, and achievements. In contrast to the dominant approach to the measurement of poverty, which takes per capita consumption as the relevant indicator of the standard of living, Sen takes various kinds of freedoms as the relevant indicators of the standard of living. In his recent articulation of this approach, in his book entitled "Development as Freedom" Professor Sen notes that "in analyzing social justice, there is a strong case for judging individual advantage in terms of capabilities that a person has, that is the substantive freedoms he or she enjoys to lead the kind of life he or she has reason to value. In this perspective, poverty must be seen as the deprivation of basic capabilities rather than merely the lowness of incomes". Deprivation of elementary capabilities can be reflected in, among others, premature mortality, under-nourishment, morbidity and illiteracy. An example of applying such an approach is to be found in the Human Development Index of the UNDP.

In its relation to the dominant approach to poverty analysis, it is perhaps important to note that the alternative approach does not deny that the deprivation of individual capabilities can have close links to the lowness of income on the basis of a two-way relationship. First, is the fact that low income can be a major reason for illiteracy and ill health; as well as hunger and malnutrition. Second, better education and health help in the earning of higher income. It is this type of relationship that prompted some people to argue that the two approaches complement each other.

Despite the richness of the capability approach from a development perspective, in what follows we will be following the dominant approach. This choice could be justified in terms of the availability of comparable results for a large number of developing countries. Needless to note, however, that the two approaches suffer from the availability of relevant data over long periods of time and from major weaknesses in the data available. Overture

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Bibliography

Ali A. A. G. and Elbadawi I. (2001). *Growth Could be Good for the Poor* unpublished manuscript. [Provides the technical details for the argument on the relationship between the percentage change in the average income of the poor as a result of a percentage change in mean income of society.]

Atkinson A. B. (1998). *Poverty in Europe*. Oxford: Blackwell. [Provides an analysis of poverty in Europe and theoretical justification for considering the head-count ratio as a relevant measure of poverty from a human rights perspective.]

Chen S. and Ravallion M. (2000). *How Did the World's Poorest Fare in the 1990s?* Washington D.C.: World Bank. [This includes the up-dated estimates used for the *World Development Report 2000/2001*.]

Chen S., Datt G., and Ravallion M. (1994). Is Poverty Increasing or Decreasing in the Developing World? *Review of Income and Wealth*, No.40. [Provides earlier results of estimating poverty for world regions.]

Deininger K. and Squire L. (1996). A new data set for measuring income inequality, *World Bank Economic Review***,** Vol. **10**, No. 2. [Gives the basic information, and some analysis, on a compiled high quality data set on income distribution including the criteria used for “high quality. A lot of subsequent empirical work on poverty and income distribution is based on this work.]

Dollar D. and Kraay A. (2001). *Growth is Good for the Poor*. World Bank, www.worldbank.org/research. [Provides the empirical results on the basis of which the proposition that the poor benefit from growth equally as others.]

Fields G. S. (2000). *Distribution and Development: a New Look at the Developing World*. Cambridge, MA: MIT Press. [This is a new contribution to the growing literature on inequality and poverty in the context of developing countries.]

Foster J., Greer J., and Thorbecke E. (1984). A New Class of Decomposable Poverty Measures. *Econometrica* **51**(1). [A classic paper that generalized existing poverty measures in a unified class with very attractive properties.]

Kakwani N. (1993). Poverty and economic growth with application to Cote d'Ivoire. *Review of Income and Wealth* **39**(2). [The reader will find a succinct statement of the behavior of the mean income of the poor with respect to mean income of society in the context of Lorenz curve analysis.]

Paris21 (2000). A Better World for All. www.paris21.org.

Ravallion M. (1998). *Poverty Lines in Theory and Practice, LSMS Working Paper No*. 133, Washington D.C.: World Bank. [This is a comprehensive discussion of definitions and methodologies of poverty lines.]

Ravallion M., Datt G., and Walle D. van de (1991). Quantifying absolute poverty in the developing world? *Review of Income and Wealth* No. 37. [The very first attempt at estimating poverty for world regions using available data from household surveys and the setting of the famous a dollar a day per person international poverty line.]

Rodrik D. (2000). Growth Versus Poverty Reduction: A Hollow Debate. *Finance and Development* **37**(4). [A recent non-technical contribution to the debate on poverty reduction from the group of 24's perspective.]

Sen A. K. (1999). *Development as Freedom*. New York: Anchor Books. [Provides a synthesis of an alternative approach to thinking about development as a "process of expanding the real freedoms that people enjoy". Poverty in this context is seen as deprivation from basic capabilities to function.]

The Economist (2000). Growth is Good. 27 May, p. 94.

Thomas V. et al., (2000). *The Quality of Growth*. Oxford: Oxford University Press. [While acknowledging the centrality of the pace of economic growth in the development process, the Report identifies the quality of growth with four dimensions relevant to poverty: distribution of income and wealth, sustainability and variability of growth, and, governance.]

World Bank (1990). *World Development Report 1990: Poverty*. Oxford: Oxford University Press. [The Report provides a stock taking of the state of knowledge, at that time, about poverty. It advocates a two-pronged strategy for poverty reduction: labor intensive growth and the provision of broad-based social and infra-structural services.]

World Bank (2000). *World Development Report 2000/2001: Attacking Poverty*. Oxford: Oxford University Press. [As usual this is a stock taking of the state of knowledge in the area of poverty and inequality following the elapse of ten years since the last WDR on poverty. The Report is organized around major themes of opportunity, empowerment, and security, similar to the approach advocated by A. K. Sen.]

World Bank (2001). *Global Economic Prospects and the Developing Countries*. www.worldbank.org/research. [The Report provides a set of results on the prospects of various developing countries for the medium term. In the process recent performance is evaluated and major policy issues are presented and discussed. It also presents results on the prospect for reducing poverty in the developing world.]

Biographical Sketch

Dr. Ali Abdel Gadir Ali, born in 1944, is a Sudanese national holding a Ph.D. in Economics from the University of Essex in England. He taught Economics at the Universities of Khartoum and Gezira (in Sudan) and the University of Kuwait and was Professor of Economics at the University of Gezira. He has worked as a consultant, among others, to the Government of Sudan, the ILO, the World Bank, the Arab

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