

CHILD POVERTY : CONCEPT
AND MEASUREMENT

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API/WPS 0701

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Child Poverty: Concept and Measurement ¹

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Abstract

Following a review of the most important approaches to the study of poverty the paper shows that child poverty is defined as severe deprivation in two or more basic needs of food, water, sanitation facilities, health, shelter, education and information. Like all other quantitative approaches the study of child poverty requires specifying thresholds for severe deprivation for each of the basic needs, on the basis of which observations are aggregated to arrive at the percentage of children under 18 years living in poverty. The reviewed evidence shows that 40% of Arab children seem to have lived in absolute poverty over the period 1991-2001, a performance worse than the average for the developing world

فقر الأطفال : المفاهيم والقياس

ملخص

بعد استعراض أهم طرق دراسة الفقر توضح هذه الورقة أن فقر الأطفال يُقصد به حالة من الحرمان الشديد في اثنين أو أكثر من الاحتياجات الأساسية للحياة وذلك في مجالات الغذاء، والمياه النقية، والصرف الصحي، والصحة، والمسكن، والتعليم، والمعلومات. وتوضح الورقة أن قياس الفقر في أوساط الأطفال يعتمد، مثله مثل الطرق الكمية الأخرى، على تحديد مستويات حرجة لكل مجال ومن ثم تجميع المشاهدات للحصول على نسبة الأطفال (بمعنى أولئك تحت سن 18) الذين يعيشون في حالة فقر. وتوضح الشواهد التطبيقية التي تم استعراضها أن 40% من الأطفال في الدول العربية كانوا يعيشون في حالة فقر مطلق خلال الفترة 1991-2001، مما يعكس وضعاً أسوأ من ذلك لمتوسط الدول النامية.

I. Introduction:

At the outset it is perhaps important to note that over the period since 1995, the date of the holding of the World Summit for Social Development (WSSD) held in Copenhagen, there has developed a world wide agreement that the overarching objective of development, in developing countries, is poverty reduction. The Millennium Summit, held in September 2000 in New York, reaffirmed this commitment to reduce poverty on the scale of the world. Such a world wide consensus came as a result of theoretical, and empirical, investigation on the nature of the development process. To a large extent it reflects the intellectual contribution of, among others, Professor Amartya Sen, the 1998 Nobel Prize economist, and Professor Peter Townsend the renowned sociologist of the London School of Economics². According to Sen, development can be seen as a process of expanding the real freedoms that people enjoy in “living the lives they have reason to value”. His book titled **Development as Freedom** includes his major theoretical and empirical contributions in this respect (Amartya Sen (1999))³.

Without getting involved in the philosophical foundations of this approach we only note that it requires judging the welfare of individuals not only in terms of the utility of goods and services, nor in terms of primary goods, but also in terms of “substantive capabilities to choose a life one has reason to value”. Capability is thus the substantive freedom to achieve various lifestyles: to live a healthy life; to be well nourished; to take part in the life of the community; and, to have self-respect.

This is a much broader approach to understand what is meant by development compared to other approaches that identify development with increases in per capita incomes, or with industrialization, or with technological advance, or with social modernization. It is an approach that will enable all concerned to deal with issues related to children in the context of development.

Under this perspective “*poverty must be seen as the deprivation of basic capabilities rather than merely lowness of incomes.....(but the perspective) does not involve any denial that low income is one of the major causes of poverty since lack of income can be a principal reason for a person’s capability deprivation*” (Sen (1999: 87)).

This definition is identical to the definition of absolute poverty adopted by the WSSD which is quoted as “*a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to social services*”. Child poverty, it will be seen, is usually addressed under this second definition.

The brief of this paper is to address the issue of what is meant by child poverty and how can UNICEF address it at the country level. In this respect we hasten to note that the internationally accepted definition of a child is that of individuals below the age of 18 years. The age limit defining a child is both political (e.g. the right to vote) and legal (e.g. accountability before courts of law). While detailed population profiles provide information that enables the identification of such group, usually the age group of individuals below 15 years is reported in aggregative accounts of population structure by age. Thus, use of this subset of children is likely to result in underestimation of the spread of poverty among children.

Furthermore, we also need to note at the outset that despite the differences in the approaches of studying poverty there is a general agreement that children usually live in households (or families). Thus, the state of child poverty is usually inferred from information about the state of poverty in a household.

To address its brief the remainder of this lecture is composed of three sections. Section (II) discusses, albeit very briefly, the various approaches to the study of poverty. Section (III) deals with child poverty, while section (IV) concludes.

II. Approaches to the Study of Poverty:

Three broad approaches to the measurement, and study, of poverty can be distinguished. The most widely used approach is the quantitative, money metric, approach. This approach looks at the issue of poverty in the context of welfare comparisons where welfare is defined on income or consumption expenditure as reflecting the standard of living enjoyed by individuals. The second approach is that of capability which broadens the concept of the welfare of an individual to include fundamental freedoms in addition to the commodity dimension of welfare. The third approach is one that searches for the meaning of poverty by asking the poor themselves and is known as the participatory poverty assessment approach. The discussion of these approaches will be highly selective in nature due to the vast technical literature that has developed⁴ especially in the context of the dominant approach to poverty measurement.

2.1. The Capability Approach:

This approach uses 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 resorting to Professor Sen's concepts of entitlements, capabilities and achievements. The capability approach takes various kinds of freedom as the relevant indicators of the standard of living. In a recent articulation of this approach it is noted 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"⁵.

Deprivation of elementary capabilities can be reflected in, among others, premature mortality, under-nourishment, morbidity and illiteracy. Due to various heterogeneities and diversities in the space of capabilities, no composite indicator of the capability approach to poverty analysis has been constructed. However, an attempt at the construction of such indexes is to be found in the Human Development Index (HDI) and the Human Poverty Index (HPI) of the United Nations Development Programme (UNDP).

(a) The Human Development Index (HDI): As is well known, the HDI takes into account the capabilities of living longer (as reflected by the life expectancy at birth), of being able to read and write (as reflected by the adult literacy rate and the combined enrolment ratios in intermediate and secondary school levels) and being able to live a decent life (as reflected by per capita income). Apart from the income dimension, the HDI is clearly concerned with health and education capabilities. The HDI is an index that ranges from zero (for no capability achievements) to unity (for highest achievements). On this index three country groupings are used to rank, and compare, countries: high human development group (with an

HDI above 0.8), medium human development group (with an HDI between 0.5 and 0.8) and low human development (with HDI less than 0.5).

For each capability, and each country, region or state, a normalized indicator, I_{ij} is obtained as follows where x is the value of the indicator of capability and x_{\max} and x_{\min} are respectively the maximum values of these indicators in the countries, regions or states being compared:

$$(1) I_{ij} = [x_{ij} - x_{\min}] / [x_{\max} - x_{\min}]$$

Note that in the above formula care needs to be exercised in interpreting max and min values to be consistent with the indicator in question (e.g. for income levels, education attainment and life expectancy the formula can be applied directly; for infant mortality, child mortality and similar indicators a reinterpretation is required), where by max is meant the best achievement and by min the worst achievement.

Note also that for the income dimension it is the logarithm of income that is used in the computation of the index. According to UNDP (2003: 341) “income serves as a surrogate for all dimensions of human development not reflected in a long life and in knowledge. Income is adjusted because achieving a respectable level of human development does not require unlimited income”.

The HDI_j for country j is obtained as the simple average of the normalized capability indicators as follows:

$$(2) HDI_j = 1/3 (\sum_i I_{ij})$$

According to UNDP (2005: 341) the goalposts for calculating HDI are as follows:

- Life expectancy at birth (years) : max = 85; min = 25;
- Adult literacy rate (%) : max = 100; min = 0;
- Combined gross enrolment ratio (%) : max = 100; min = 0;
- GDP per capita (PPP US\$) : max = 40000; min = 100.

HDI is reported yearly by UNDP in its Human Development Report (HDR). Usually the information for the computation of the index is available with a lag of about three years. Given the continuity of the Report this should not pose any problem. The results on HDI are freely available on the web site of UNDP.

Without getting involved in details it may be instructive to have a look at the implication of the use of HDI for child poverty. The 2006 Human Development Report ranks 177 countries on HDI calculated for the year 2004. The best performing country is Norway (with an HDI = 0.965), the worst performing country is Niger (with an HDI = 0.311). Five Arab countries belong to the high human development class; Kuwait being the best performing in 2004, with an HDI of 0.871 and a rank of 33 in the world. Three Arab countries belong to the low human development class; Mauritania being the worst performing, with an HDI of 0.486 and a rank of 153. The remaining ten Arab countries belong to the medium human development category; Libya being the best performer in this category (HDI = 0.798; and rank of 64), while Sudan is the worst performing (with HDI = 0.512; and rank of 141).

One way of using HDI to look at child poverty is to further refine the medium human development category into a high and low sub-categories with a threshold of an HDI value of 0.65. Doing this will bring Morocco and Sudan into the deprivation net. The total number of children below the age of 15 years was about 95 million in 2004. The table below provides the evidence.

Table (1)
Child Poverty in the Arab Countries According to the HDI: 2004

| HDI Category | Number of Countries | Number of Children (million) | Share of Children (%) |
|--------------|---------------------|------------------------------|-----------------------|
| High | 5 | 2.8 | 2.9 |
| Medium High | 8 | 57.2 | 60.1 |
| Medium Low | 3 | 24.1 | 25.3 |
| Low | 3 | 11.1 | 11.7 |
| Total | 19 | 95.2 | 100.0 |

As is clear from the table only 3% of Arab children live in countries with high human development achievement. Adding to this those that live in countries with relatively high medium HDI we end up with about 63 of Arab children living in countries that can be described as not suffering from severe deprivation. The remainder of children, amounting to 35 million and representing 37% of the total, can be considered as living in countries suffering from deprivation.

(b) The Human Poverty Index (HPI): Under the capability approach "poverty means that opportunities and choices most basic to human development are denied". Thus HPI concentrates on deprivation in three essential elements of human life already reflected in the HDI: longevity, knowledge and decent living. Three indices are chosen to represent human poverty in a composite index:

P₁: deprivation relating to survival meaning the vulnerability to death at a relatively early age; and is measured by the percentage of people expected to die before age 40.

P₂: deprivation with respect to knowledge meaning exclusion from the world of reading and communication; and is measured by the percentage of adults who are illiterate.

P₃: deprivation from a decent standard of living (overall economic provisioning). Three sub-indicators are used for measurement: P₃₁: the percentage of people without access to health services; P₃₂: the percentage of people without access to safe water; and, P₃₃: the percentage of malnourished (moderately and severely underweight) children under five. $P_3 = [\sum P_{3i}]/3$.

The above three indices of deprivation are combined into a composite index as follows:

$$(3) \text{ HPI} = [1/3 (P_1^3 + P_2^3 + P_3^3)]^{1/3}$$

Since 1997 HPI is reported yearly in the HDR. Like the HDI the information for the computation of the index is available with a lag of about three years. Once again, given the continuity of the Report this should not pose any problem. Also like HDI, the results on HPI are freely available on the web site of UNDP.

Note that according to UNDP countries scoring less than 10 points on HPI belong to the low human poverty category while those scoring more than 30 points belong to the high human

poverty category. HPI is reported for a sample of 14 Arab countries (with a total population of children of about 82.4 million in 2004).

Table (2)
Child Poverty in the Arab Countries According to the HPI

| HPI Category | Number of Countries | Number of Children (million) | Share of Children (%) |
|---------------|---------------------|------------------------------|-----------------------|
| Low Spread | 3 | 3.2 | 3.9 |
| Medium Spread | 5 | 43.9 | 53.3 |
| High Spread | 6 | 35.3 | 42.8 |
| Total | 14 | 82.4 | 100.0 |

Morocco, Comoros, Sudan, Djibouti, Yemen and Mauritania each had an HPI equal to, or greater than, 30. The total number of children in these countries is about 35.3 million representing about 42.8% of children in the Arab countries. Thus, these countries are characterized by a fairly wide spread human poverty among children in the sense of deprivation in health, education and standard of living.

(c) The MDGs:

The MDGs can be considered as an operationalization of the broader approach to development as a process of expanding the freedoms people enjoy. The MDGs revolve around poverty reduction as an overarching objective of development. It is known that the first goal deals with poverty reduction in the sense of poverty as lowness of income. This goal can be considered as indirectly related to children. Two goals relate directly to children reflecting the broader capability perspective. To see how these goals are related to children let s consider each of them in some detail.

MDG Goal 1: On Income Poverty and Hunger: The first Millennium Development Goal (MDG) is to eradicate extreme poverty and hunger. Two major targets under this goal are specified. The first target is to halve the proportion of people living in extreme poverty (living on less than US\$1.08 per person per day) by the year 2015. As is well known, the proportion of people living in extreme poverty is the head count ratio while the income level of US\$ 1.08 per person per day is the poverty line. Three indicators have been selected to reflect progress in achieving this target. These include the head-count ratio itself, the poverty gap ratio and the share of the poorest 20 percent of the population in national consumption (i.e. the share of the poorest quintile). The second target is to halve the proportion of people who suffer from hunger by the year 2015. Two indicators have been selected to monitor progress with respect to this target. *These are the prevalence of underweight children under five years of age; and, the proportion of population below minimum level of dietary energy consumption.*

MDG Goal 2: On Universal Primary Education: Under this goal only one target is specified. *The target requires that by 2015 children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.* Three indicators for the achievement of this goal have been identified. These are the net enrolment ratio in primary education; the proportion of pupils starting grade 1 who reach grade 5; and the literacy rate of those aged 15-24 years; and,

MDG Goal 4: On Reducing Child Mortality: Under this goal one target is specified. *The target requires the reduction of the under-five mortality rate by two thirds between 1990 and 2015.* Three indicators are identified for the achievement of this goal. These are the under-five mortality rate; the infant mortality rate; and, the proportion of one year olds children who are immunized against measles.

It is perhaps clear that all three goals deal with poverty among children in the sense of aiming at reducing deprivation in living conditions, education and health. Such goals are, of course, identified under the overall objective of expanding the real freedoms that people enjoy rather addressing issues of estimating child poverty directly.

2.2. The Participatory Approach:

The participatory approach to poverty assessment is an approach to the study, but not necessarily the measurement, of poverty. The approach was popularized largely by the work of development practitioners who were involved in assessing development projects at the field level⁶. The basic premise underlying this approach is that the poor know more than anybody else about their realities, priorities and most of all the remedies to get out of the poverty trap. As a result, the information collection process differs substantially from that of representative household surveys on which the money metric approach relies. Thus under this approach it is the poor who are involved in providing non-quantitative information about poverty in the selected community through graphic presentation, anecdotes, social mappings, case stories, life histories, and local history⁷.

Perhaps the most extensive application of this approach was the study undertaken by the World Bank in preparation for the “World Development Report 2000/2001: Attacking Poverty”. The study brought together experiences of over 60 thousand poor women and men from 60 countries around the world. The results of the study have been published in three volumes⁸. The results are hailed as demonstrating the multidimensional nature of poverty in the sense that “when poor people speak about well-being they speak about material, social, physical, psychological, and spiritual dimensions, in addition to security and freedom of choice and action. Conversely, poverty and ill-being are the lack of material well-being, insecurity, social isolation, psychological distress, and lack of freedom of choice and action”⁹.

Despite the richness of the participatory approach to poverty assessment, however, *a careful reading of the selected quotations from poor people around the world would show that material deprivation was central to the perceptions of poor people about the nature of poverty.* In a technical sense, therefore, the social, physical, psychological, insecurity, and lack of freedom of choice and action dimensions of poverty can be viewed as functions of the standard of living as summarized by mean per capita consumption in a given society. Thus an analytical framework based largely on the dominant money metric approach to the study, and measurement, of poverty is not likely to be wildly off the mark.

Given required resources there is no reason why such an approach could not be used in future studies of child poverty especially at the country level and particularly for the investigation of the dept of deprivation for special groups of children, or children in special communities.

2.3. The Money Metric Approach:

This is the most dominant approach to the measurement of poverty. Two major steps are involved in this approach: (i) the identification of the poor; and, (ii) the aggregation of the information on the poor in a single index.

i) The Identification of the Poor: Under the money metric 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.

There are a number of methods to determine the poverty line, *z*. The most famous among these are the food-energy intake method (FEI) and the cost of basic needs method (CBN).

(i-a) The Food-Energy Intake method (FEI): uses available information from household expenditure surveys on consumption expenditure and the caloric content of food items to estimate a cost of calories function on the basis of which a poverty line satisfying the recommended calories is obtained. The recommended calories are usually based on WHO and FAO nutritional requirements (so called recommended daily allowances e.g. 2500 calories per adult per day);

(i-b) The Cost of Basic Needs (CBN) 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 WHO and FAO nutritional requirements (recommended daily allowances e.g. 2500 calories 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, education and medicine) an overall poverty line can be estimated¹⁰.

The non-food component of the CBN method has attracted a lot of attention in recent times. Ravallion (1998) suggested that such a component can be estimated using household budget survey information by estimating an Engels curve relating the share of food in the budget to total expenditure relative to the food poverty line.

ii) Aggregation: Having obtained the poverty line, an immediate measure of poverty is the ratio of the poor thus identified to the total population in a given 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 of 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 poor¹¹. As is well known these two measures are special cases of a general class of additively separable poverty measures. The Foster-Greer-Thorbecke, FGT, measure is given by¹²:

$$(4) \quad P_{\alpha} = 1/n \sum [(z - y_i)/z]^{\alpha};$$

In the above equation the summation is over q poor people, n is total population, z is the poverty line, y_i is the consumption expenditure of the i^{th} poor person, and α is a non-negative poverty aversion parameter. When $\alpha=0$ the equation gives the head-count ratio denoted by P_0 or H and is given by:

$$(5) \quad P_0 = H = q/n$$

The head-count ratio is the most widely used measure of poverty because of it can easily be understood. Its major disadvantage is that it is insensitive to the distribution of consumption expenditure, or income, below the poverty line. That is, if a poor person becomes poorer, the head-count does not change!

When $\alpha=1$ the equation gives the poverty-gap ratio, denoted by P_1 and is given by:

$$(6) \quad P_1 = H (1 - y_p/z)$$

Where y_p is the mean consumption expenditure of the poor. The advantage of the poverty-gap ratio is that it reflects the depth of poverty. Its disadvantage is that it is insensitive to the severity of poverty as reflected in the distribution of income among the poor.

Note that with equations (5) and (6) the average consumption expenditure of the poor can easily be calculated as:

$$(7) \quad y_p = z (1 - P_1/H)$$

The average consumption expenditure of the poor can also be used as an alternative measure of the depth of poverty.

An attractive property of the Foster-Greer-Thorbecke class of poverty measures is that they are additively separable in the sense that we have poverty measures computed for various regions, groups or occupations, defined in exhaustive, non-overlapping fashion, then overall poverty can be obtained as a weighted average of these poverty measures with weights being the population shares. Thus, if P_j is a poverty index for region j with a population share of n_j , then overall poverty is given by:

$$(8) \quad P = \sum_j n^j P^j$$

Given availability of detailed household survey data this approach can be used to measure child poverty by appropriately identifying the number of children in poor households¹³.

III. Children Rights and Child Poverty:

3.1. Identification of Poor Children:

In a recent public lecture Gordon and Townsend (2005) noted that the international human rights conventions, such as the UN Convention on the Rights of the Child (UNCRC), provide a helpful framework for poverty measurement along the lines already indicated in sub-section (2.3). This is believed to be so for the following reasons: (i) these conventions have been

signed by every country in the World and so can be considered to embody universal values and aspirations; (ii) they provide "a normative framework of obligations that has the legal power to render governments accountable"; and (iii) "a human rights approach shifts the emphasis in debates about poverty away from personal failure to focus on the failure of macroeconomic structures and policies created by nation states and international bodies (WTO, World Bank, IMF etc). Hence poverty in this context is no longer described as a 'social problem' but a 'violation'".

Despite the usefulness of the framework there are two major problems with it: the first problem is that UNCRC does not contain an explicit human right to 'freedom from poverty'. The second problem is that many of the rights enumerated in the CRC are ambiguous and require judicial judgments to determine if they have been met. The fulfillment of the rights involved is seen to represent a continuum from complete fulfillment to extreme violation.

Under this approach, a careful reading of the specialized literature would show that "child poverty" has been addressed in a manner consistent with the capability approach, where poverty is seen as a "*condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to social services*". In this context deprivation, like the rights of the child, is seen as a continuum that ranges from no deprivation, through mild, moderate and severe deprivation to extreme deprivation.

Like the conventional money metric approach it is noted that to measure absolute poverty amongst children there is a need to define threshold levels of severe deprivation on each of the identified basic human needs. According to Gordon et al (2003-a; hereinafter GNPPT) the thresholds are as follows:

Severe Food Deprivation: children whose heights and weights for their age are more than 3 standard deviations below the median international reference population;

Severe Water Deprivation: children who only have access to surface water (e.g. rivers) for drinking or who live in households where the nearest source of water is more than 15 minutes away;

Severe Deprivation of Sanitation Facilities: children who have no access to a toilet of any kind in the vicinity of their dwelling, including communal toilets or latrines;

Severe Health Deprivation: children who had not been immunized against any diseases, or young children who had a recent illness involving diarrhea and had not received any medical advice or treatment;

Severe Shelter Deprivation: children living in dwellings with more than five people per room or with no flooring material;

Severe Education Deprivation: children aged 7 – 18 who had never been to school and are not currently attending school (i.e. no official education of any kind);

Severe Information Education: children aged 3-18 with no possession of, and access to, radio, television, telephone or newspaper at home.

3.2. Aggregation and Results:

From an operational point of view, and on the basis of the thresholds identified in sub-section (3.1), a child is defined as living in absolute poverty “*only if he or she suffers from multiple deprivations*” (i.e. two or more deprivations of basic human needs). This is the aggregation rule used to come up with a single figure that describes the state of deprivation of children: the percentage of children in a society living under conditions of absolute poverty.

Using these definitions and thresholds GNPPT (2003-a, and nd) report results on child poverty in the developing world by region¹⁴. The results are based on the combined use of information available from end of decade Multiple Indicator Cluster Surveys (MICS2) and the Demographic and Health Survey (DHS). MICS are household surveys that were “specifically designed to help countries accurately assess progress for children in relation to the World Summit for Children goals which were agreed in September 1990 by 71 heads of state and government and 88 other senior officials”¹⁵. The DHS are also household surveys designed to produce monitoring and impact evaluation indicators in the areas of population, health and nutrition. Despite the differences among the instruments used to collect the data the MICS2 instrument, through a wide-ranging consultation, was made more compatible with the DHS instrument. The reported results are based on “adding MICS2 survey data for countries where there are currently no HDS data available”.

Thus, the results are based on high quality household and individual survey data from 70 countries collected over the period 1991-2001¹⁶. The number of children in the aggregated sample is 2.4 million with an average sampling fraction of one child out of 775 (varying between regions). The Middle East and North Africa region in this study, (with a sampling fraction of one child out of 771), is represented by Egypt (with a DHS), Morocco (DHS), Sudan (MICS) and Yemen (DHS)!!! Results for the Arab region, compared to the average of the developing world and the best and worst performing regions, are summarized below where figures between brackets are the percentage of children in the relevant comparator region.

Table (3)
Child Poverty in the Arab Countries:
Percent of Children Living in Absolute Poverty and Severe Deprivation

| Indicator | Arab Countries | Developing World | Highest Incidence Region | Lowest Incidence Region |
|--------------------|----------------|------------------|--------------------------|-------------------------------------|
| Absolute Poverty | 40 | 35 | SSA (63) | Central and West Asia (8) |
| Severe Deprivation | 67 | 58 | SSA (82) | Central and West Asia (30) |
| Shelter | 54 | 35 | SSA (64) | East Asia and the Pacific (10) |
| Sanitation | 28 | 31 | South Asia (61) | Central and West Asia (1) |
| Information | 9 | 17 | SSA (29) | Central and West Asia (4) |
| Water | 23 | 21 | SSA (53) | Latin America and the Caribbean (7) |
| Food | 16 | 16 | South Asia (24) | Latin America and the Caribbean (5) |
| Health | 17 | 16 | South Asia (24) | Central and West Asia (2) |
| Education | 23 | 14 | SSA (29) | Latin America and the Caribbean (3) |

The most important results to note from the perspective of the Arab region can be summarized as follows:

- (i) 40% of Arab children seem to have lived in absolute poverty over the period 1991-2001, a performance worse than the average for the developing world. The details show that the Arab region ranks in third place behind SSA and South Asia (54%)¹⁷. This is in sharp contrast to the spread of absolute income poverty which shows that the Arab region is the lowest poverty region over the same period (see, for example, Chen and Ravallion (2004));
- (ii) 67% of Arab children seem to have lived under conditions of severe deprivation over the period under study. The details show that the Arab region ranks in third place behind SSA and South Asia (81%);
- (iii) in terms of shelter, water, and education the Arab region under performs compared to the average for the developing world. Its performance is equal to the average of the developing world in terms of food, and is better in terms sanitation and information;
- (iv) on the basis of (iii) it can be concluded that severe shelter, sanitation, water, and education deprivation are the major problems affecting children in the Arab region.

Be the above as it may, GNPPT (nd : 14) conclude that our "results for children show that severe deprivation of basic human need for physical capital (e.g. clean water, sanitation, housing) is a more prevalent problem than severe human capital deprivation (e.g. education, health services and malnutrition)"¹⁸. This, we suggest, is a very interesting conclusion as far as priorities for development are concerned.

IV. Concluding Remarks:

In drawing the policy implications of the results on child poverty Gordon and Townsend (2005) note that the World Bank's strategy for "attacking poverty", based as it is on broad-based economic growth, investment in education, and targeting of vulnerable groups has proved inadequate over the past thirty years. Such failure of the strategy, it is noted, is due to the trickle-up nature of the economic growth process that took place in some of the developing countries, and to the nature of the conditionality on the loans and credits provided for the developing world (e.g. cost-recovery in basic social services, cuts in public expenditure, excessive privatisation, and excessive opening up of economies to capital flows)¹⁹. We hasten to note that such an assessment of the World Bank poverty strategy is consistent with UNICEF's mid-1980s assessment of the so-called structural adjustment programs (SAPs), and the call for "adjustment with a human face" (see, for example, Cornia, Jolly, and Stewart, (1987)). It should also be recalled that the evidence for UNICEF's assessment of SAPs was collected at the country level.

As is well known in the early years of the development experience of developing countries over the period since 1960 and up to the middle of the 1970s, development policy revolved around social equity mechanisms such as social transfers and public employment. From the middle of the 1970s up to the end of 1990s the development policies based on such mechanisms came to be labelled as "poor economic policies". Now, however, it seems that we know better. There is empirical evidence to suggest that indeed social transfers and public

employment are very effective mechanisms for bringing about desirable development outcomes, especially for children in poverty. Milanovic (1994) was the first to provide empirical evidence on the impact of such policies on the inequality in the distribution of income and hence on poverty.

In recent years the World Bank seems to have come to the conclusion that the adjustment policies, first criticized by UNCEF in the mid-1980s, are not relevant to the pursuit of the overarching objective of development of reducing poverty. In August 2004 the World Bank announced that it is replacing its "adjustment lending" instrument by a "development policy lending" instrument²⁰. According to the official source development "*policy lending aims to help a borrower achieve sustainable reductions in poverty through a program of policy and institutional actions that promote growth and enhance the wellbeing and increase the incomes of poor people*". The Bank, however, "undertakes development policy lending only when it has determined that the country's macroeconomic policy framework is appropriate". In a footnote it is noted that there exists guidelines for "good practices in designing development policy". Despite the caveats, we suggest that, these changes in lending practices is a starting point in the search for relevant development policies under the overarching objective of poverty reduction, including the reduction of child poverty.

Footnotes

- ¹ Invited Lecture given to UNICEF Regional Office; 16th May 2007, Amman Jordan.
- ² Townsend, Professor of international social policy, is a sociologist by training but can be considered, like Sen, a social philosopher.
- ³ See, for example, Sen (1981).
- ⁴ Sen (1976) pioneered the theory of poverty measurement by identifying a set of axioms that need to be satisfied by poverty measures. The literature that followed is indeed extensive as reviewed by Zheng (1997 and 2000). In Zheng (2000) seventeen axioms and sixteen measures of poverty are identified. Of the sixteen poverty measures four are found to satisfy all seventeen axioms; two are found to satisfy sixteen out of the seventeen axioms. At the other extreme the head-count ratio is found to satisfy eight axioms while the poverty-gap ratio is found to satisfy eleven axioms.
- ⁵ Sen (1999:87).
- ⁶ For the origin of the participatory approach to development see, among others, Chambers (1994 and 1997) and Blackburn and Holland (1998-a and b).
- ⁷ For a crisp review of the experience of the World Bank with this approach see Robb (1999).
- ⁸ See Narayan et al (2000-a and b) and Narayan et al (1999).
- ⁹ Narayan (2000).
- ¹⁰ Note that this method was applied rigorously since the turn of the 20th century in the famous contribution of Rowntree (1901), but the concept itself would be as old as when people started worrying about poverty.
- ¹¹ For a technical formulation of these measures see equations (5) and (6) below.
- ¹² See Foster, Greer and Thorbecke (1994).
- ¹³ For such use of household budget surveys to calculate the incidence of poverty in Sub-Saharan Africa see Ali (2002). For a sample of 19 countries the head-count ratio for children is calculated for children below 15 years living in households falling below the poverty line as a ratio of all children below the age limit. Overall the children head-count ratio at the level of the region is found to be 0.6 (i.e. 60% of the total number of children below 15 years were living in poverty): 0.64 in rural areas and 0.52 in urban areas.
- ¹⁴ The same results are also reported in Gordon and Townsend (2005).
- ¹⁵ Gordon et al (nd: 1). The WSC adopted mid-decade goals (to be achieved by 1995, indicators for which are collected through MICS) and long-term goals (end decade goals, indicators for which are collected through MICS2). By 1996 it is reported that 60 developing countries had carried out stand alone MICS and another 40 had incorporated some of the MICS modules into other surveys.
- ¹⁶ The number of countries per region are as follows: 12 Latin America and the Caribbean, 4 Middle East and North Africa, 4 South Asia, 8 East Asia and the Pacific, 7 Central and West Asia, and 35 Sub-Saharan Africa. MICS are used for 19 countries; for China the National Sample Survey on the Situation of Children is used; while the DHS are used for the remainder of countries.
- ¹⁷ Note that the estimate for children in absolute poverty of 63% for SSA is not significantly different from that reported in Ali (2002) based on the money metric approach.
- ¹⁸ For similar policy recommendations see UN Millennium Project (2005), and Sachs (2005).
- ¹⁹ Gordon and Townsend propose an alternative international strategy to defeat poverty that consists of equitable tax and incomes policy, an employment creation program, a universal social security and social services facility, and institutional arrangements for social and democratic controls of transnational corporations and international agencies.
- ²⁰ At the time policy-based lending in support of a country's policy program accounted for about one third of the Bank's annual lending. The announcement, posted on 10th August 2004, was made by Mr. James Adams, Vice President and Head of the Operations Policy and Country Services Network.

References

- Ali, A.A.G., (2002), "Africa's Children and Africa's Development: A Duration of Development Framework"; chapter 3 in A. van de Waal and N. Argenti, (eds.), *Young Africa: Realizing the Rights of Children and Youth*; Justice Africa, London.
- Blackburn, J. and J. Holland, (eds.), (1998-a), Who Changes? Institutionalizing Participation in Development; Intermediate Technology Development, London.
- Blackburn, J. and J. Holland, (eds.), (1998-b), Whose Voice? Participatory Research and Policy Change; Intermediate Technology Development; London.
- Chambers, R., (1997), Whose Reality? Putting First Last; Intermediate Technology Development; London.
- Chambers, R., (1994), "The Origins of Participatory Rural Appraisal"; *World Development*, vol. 22.
- Chen, S., and M. Ravallion, (2004), "How Have the World Poorest Fared since the early 1980s?"; *World Bank Research Observer*, vol. 19, no. 2.
- Cornia, G., Jolly, R., and F. Stewart, (1987), Adjustment with a Human Face: Protecting the Vulnerable and Promoting Growth; Clarendon Press, Oxford.
- Foster, J., Greer, J. and E. Thorbecke, (1984), "A New Class of Decomposable Poverty Measures"; *Econometrica*, vol. 51, no. 1.
- Gordon, D., and Townsend, (2005), "Rights Based International Indicators: Poverty and the Rights of the Child"; PPP presentation made to Metagora Forum, Paris; www.bris.ac.uk.
- Gordon, D., Nandy, S., Pantazis, C., Pemberton, S., and P. Townsend, (nd), "Using Multiple Indicator Cluster Survey (MICS) and Demographic and Health Survey (DHS) Data to Measure Child Poverty"; University of Bristol and London School of Economics.
- Gordon, D., Nandy, S., Pantazis, C., Pemberton, S., and P. Townsend, (2003-a), "Child Poverty in the Developing World"; University of Bristol, UK.
- Gordon, D., Nandy, S., Pantazis, C., Pemberton, S., and P. Townsend, (2003-b), Child Poverty in the Developing World; The Policy Press, Bristol, UK.
- Millanovic, B., (1994), "Determinants of Cross-Country Income Inequality: An Augmented Kuznets Hypothesis"; World Bank, Washington D.C.
- Narayan, D., (2000), "Poverty is Powerlessness and Voicelessness"; *Finance and Development*, vol. 37, no. 4.

- Narayan, D., Chambers, R., Shah, M.K., and P. Petesch, (2000-a), Voices of the Poor: Crying Out for Change; Oxford University Press, Oxford.
- Narayan, D., Patel, R., Schafft, K., Rademacher, A., and S. Koch-Schulte, (2000-b), Voices of the Poor: Can Anyone Hear Us?; Oxford University Press, Oxford.
- Narayan, D., Chambers, R., M. Shah, and P. Petesch, (1999), Global Synthesis: Consultations with the Poor; World Bank, Washington D.C.
- Ravallion, M., (1998), "Poverty Lines in Theory and Practice"; LSMS Working Paper no. 133, World Bank, Washington D.C.
- Robb, C., (1999), Can the Poor Influence Policy? Participatory Poverty Analysis in the Developing World; World Bank, Washington D.C.
- Sachs, J., (2005), The End of Poverty: Economic Opportunities for Our Time; Penguin Press, New York.
- Sen, A.K., (1999), Development as Freedom; Oxford University Press.
- Sen, A.K., (1981), Poverty and Famines: An Essay on Entitlement and Deprivation; Clarendon Press, Oxford.
- Sen, A.K., (1976), "Poverty: An Ordinal Approach to Measurement"; *Econometrica*, vol. 44.
- UN Millennium Project, (2005), Investing in Development: A Practical Plan to Achieve the Millennium Development Goals; www.un.org.
- UNDP, (2006), Human Development Report 2006: Beyond Scarcity: power, poverty and global water crisis; www.undp.org.
- World Bank, (2005), World Development Report 2006: Equity and Development; Oxford University Press, Oxford.
- Zheng, B., (2000), "Poverty Orderings"; *Journal of Economic Surveys*, vol. 14, no.4.
- Zheng, B., (1997), "Aggregate Poverty Measures"; *Journal of Economic Surveys*, vol. 11, no. 2.

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