Poverty in Focus

International Poverty Centre

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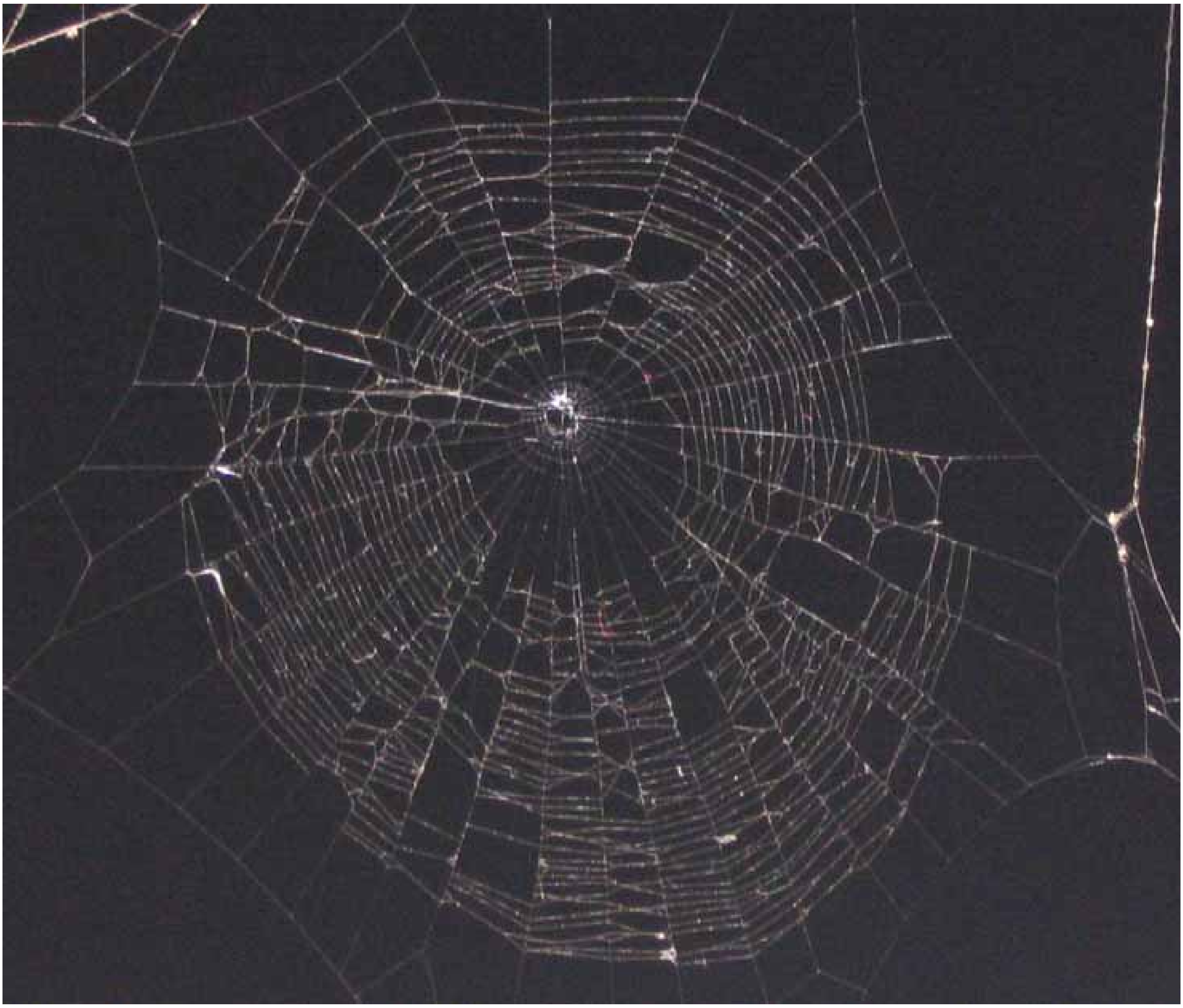

What is poverty?

Concepts and measures

FROM THE **EDITOR**

Poverty in Focus is a regular publication of the **UNDP International Poverty Centre (IPC)**. Its purpose is to present the results of research on poverty and inequality in the developing world.

The **International Poverty Centre** (IPC) is a joint project between the United Nations Development Programme and Brazil to promote South-South Cooperation on applied poverty research. It specialises in analysing poverty and inequality and offering research-based policy recommendations on how to reduce them. IPC is directly linked to the Poverty Group of the Bureau for Development Policy, UNDP and the Brazilian Government's Institute for Applied Economic Research (Ipea).

Front page: Photo by Fabio Veras, IPC, of an African cobweb to illustrate both the fragility and the tenacity of the life situations of people living in or close to conditions of poverty. The web metaphor is also applicable to the interlinkages between the various dimensions of poverty and wellbeing, as in the figure on page 3.

Editor's note: The sources of graphs and tables are the reference publications at the end of each article concerned. Thanks for permission to use this material to Robert Chambers, Institute of Development Studies, Sussex, UK; UNDP Human Development Report Office, New York; Journal of Human Development, Routledge; Third World Quarterly, Routledge. And thanks not least to all the authors contributing their time and intellectual products without any monetary remuneration.

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The international development community has had poverty in focus for more than a decade. At summit meetings and other occasions, world leaders have stated and reconfirmed their agreement that poverty must be reduced and eventually eradicated.

The political commitment is a necessary, but not sufficient, condition for this to happen. Analysts, policy-makers and practitioners need appropriate concepts and dedicated measures to enable progress from rhetoric and general policy statements to action and results on the ground.

In this issue of IPC's journal *Poverty in Focus* we present ten articles intended to throw light on the question of how best to define and measure poverty.

Robert Chambers outlines five clusters of meanings and reminds us of the importance of the analysis and views of poor people themselves and their many meanings. When they get to express their views, we get a case for changing language, concepts and measures in development. The key issue is whose reality counts – theirs or ours?

Peter Townsend provides an historical perspective of the poverty concept and the setting of poverty lines. Three poverty concepts have evolved, based on ideas of subsistence, basic needs and relative deprivation. Since material needs are socially determined, we need a new international poverty line based on what is required in different countries to surmount material and social deprivation.

Sakiko Fukuda-Parr describes the multidimensional poverty measures developed by UNDP's Human Development Reports since 1990, especially the Human Poverty Index (HPI). It shows a large spread of human poverty among countries with similar levels of income poverty and thus, HPI is only weakly correlated with income poverty. Recent HPI trends are also presented and discussed.

Caterina Ruggeri Laderchi, Ruhi Saith and Frances Stewart analyse empirical evidence to see if and why the definition of poverty matters. They also report on field testing in two developing countries of four different approaches. These are shown to have different implications for policy and also for targeting, since they identify different causes and effects of poverty, and different people as being poor.

Gustav Ranis, Frances Stewart and Emma Samman review the various listings of human wellbeing and poverty elements, thus identifying a comprehensive set of dimensions in order to empirically explore whether UNDP's Human Development Index is adequate or needs to be supplemented. They show that assessing human development fully requires a broader set of indicators.

Peter Edward outlines a moral concept of absolute poverty and defines an Ethical Poverty Line derived from globally standardised and ethically justifiable wellbeing indicators. Applying it to actual income data shows that world poverty by a moral definition is much larger than by current measures, and so is the required global income redistribution.

Lord Meghnad Desai finds the definitions of absolute poverty *static, calorific, asocial* and *atheoretical*. He proposes a new poverty line to be based on the need to maintain individual labour capacities intact, thus connecting to health, nutrition and monetary measures.

Ravi Kanbur considers the conundrums of measuring poverty when populations change and analyses three population size scenarios – increased, decreased and unchanged, but with churning around the poverty line. He delivers some remarkable points to consider.

Nanak Kakwani proposes a multidimensional poverty concept that is causally linked to command over economic resources. He argues for an income poverty line that reflects the cost of achieving basic human needs.

Sabine Alkire in response to Kakwani argues that it is not the cause of poverty that matters, but what is actionable by public policy. There are many ways to measure capability deprivation. The debate ends, for now, with a rejoinder by Kakwani.

We wish you an informative and valuable reading of this issue of ***Poverty in Focus.***

Dag Ehrenpreis

What is Poverty?
Who asks? Who answers?

by Robert Chambers,
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The flood of development rhetoric on poverty, the primacy accorded by lenders and donors to the Millennium Development Goals, of which the reduction of extreme poverty is the first and usually considered the most important, and the frequency with which reducing, alleviating or eliminating poverty is seen as a prime goal and measure of development – these factors make it matter more than ever to know what poverty is. What it is taken to mean depends on who asks the question, how it is understood, and who responds. From this perspective, it has at least five clusters of meanings.

The first is *income-poverty* or its common proxy (because less unreliable to measure) consumption-poverty. This needs no elaboration. When many, especially economists, use the word poverty they are referring to these measures. Poverty is what can be and has been measured, and measurement and comparisons provide endless scope for debate.

The second cluster of meanings is *material lack or want*. Besides income, this includes lack of or little wealth and lack or low quality of other assets such as shelter, clothing, furniture, personal means of transport, radios or television, and so on. This also tends to include no or poor access to services.

A third cluster of meanings derives from Amartya Sen, and is expressed as *capability deprivation*, referring to what we can or cannot do, can or cannot be. This includes but goes beyond material lack or want to include human capabilities, for example skills and physical abilities, and also self-respect in society.

A fourth cluster takes a yet more broadly multi-dimensional view of deprivation, with material lack or want as only one of several mutually reinforcing dimensions.

These four clusters of the meanings of poverty have all been constructed by "us", by development professionals. They are expressions of "our" education, training, mindsets, experiences and reflections. They reflect our power, as non-poor people, to make definitions according to our perceptions. And the primacy we accord to poverty alleviation, reduction or elimination implies that these meanings that we give are fundamental to what development should be about.

One expression of this has twelve dimensions, each one potentially having an impact on all of the others, and vice versa, thus emphasising the interdependence of the dimensions of poverty as we see them (see figure below).

Another expression of this has five dimensions to illustrate development as

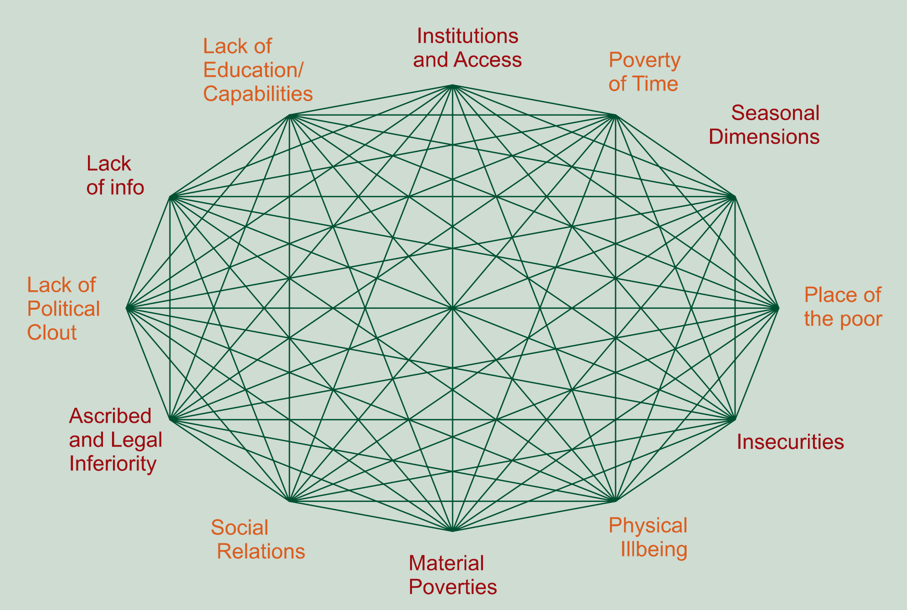
What poverty is taken to mean depends on who asks the question, how it is understood, and who responds.

Our common meanings have all been constructed by us, non-poor people.

They reflect our power to make definitions according to our perceptions.

Whose reality counts? Ours, as we construct it with our mindsets and for our purposes? Or theirs as we enable them to analyse and express it?

The web of poverty`s disadvantages



good change. Development thus can be seen as shifting from illbeing to wellbeing with equity, with interventions to enhance wellbeing possible at any of the five points (see figure on the right).

But these dimensions are all abstractions, to varying degrees reductionist, based on our analysis and views. They tend to overlook and ignore the analysis and views of the objects of the definition and description – "the poor", that is people who are in a bad condition variously described as poor, marginalised, vulnerable, excluded or deprived. There is then a fifth cluster, which is the multiplicity of their meanings.

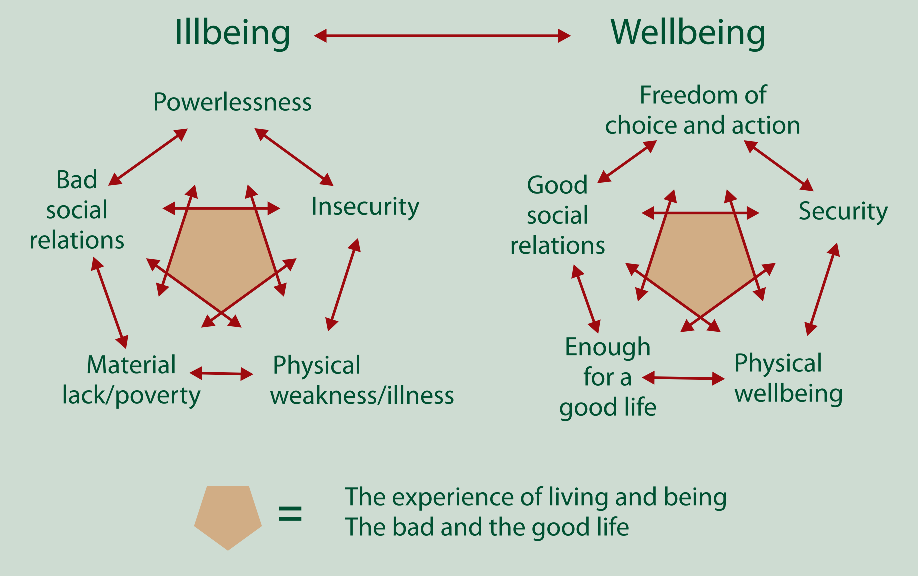
These dimensions have been elicited in many contexts, most extensively perhaps in the World Bank's participatory research programme Voices of the Poor, in which over 20,000 poor women and men from 23 countries were convened in small groups and facilitated to analyse and express their realities. Questions had to be confronted concerning words, translations, languages and concepts.

The word poverty translated into other languages carries different connotations. This was one factor in deciding to seek better insights and comparability by inviting the local analysts to use their own words and concepts for illbeing or bad quality of life, and wellbeing or good quality of life. Even allowing for the pitfalls of analysing and imposing outsiders' categories on their diverse responses, values and realities, it was striking how common and strong the same dimensions were across cultures and contexts.

There were many poverties or deprivations. Dimensions of the bad life included not only income-poverty and material lack, but many others, some of them represented in the web of poverty's disadvantages in the figure, for example poverty of time, living and working in bad places – "the places of the poor" and bad social, especially gender, relations. Others were the body as the main asset of many poor people, indivisible, uninsured, and vulnerable to flipping from asset to liability; many aspects of insecurity, worry and anxiety; and pervasively powerlessness.

The many ideas of wellbeing and the good life to which people aspired had

Development as good change – from illbeing to wellbeing



striking commonalities – material wellbeing, having enough; bodily wellbeing, being and appearing well; many aspects of social wellbeing including being able to settle children, and being able to help others; security; and freedom of choice and action. Both these commonalities and local differences make a case for changing language, concepts and measures in development.

The case is for the language of illbeing and wellbeing to be widely used in addition to poverty and wealth, which are only one part of them. It is for repeated participatory processes to enable local people, especially the poorest, most marginalised and most vulnerable, to analyse and monitor the quality of their lives, and for this to be fed back regularly to policy-makers. It is for policy-makers to spend time living in poor communities and appreciating their conditions and realities firsthand.

If we are seriously pro-poor professionals, the answer to "What is poverty?" is "That is the wrong question." It is our question, not theirs. The question of those who are poor, marginalised and vulnerable is more likely to be, in varied forms and many languages with different nuances:

"What can you do to reduce our bad experiences of life and living, and to enable us to achieve more of the good things in life to which we aspire?" Policies and actions that follow would then be designed to reduce illbeing and enhance wellbeing in their own terms. The MDGs may help, but are far from enough for this, and may at times even misdirect effort.

Direct actions towards their achievement may often not present the best priorities and paths. For they narrow and standardise vision, leave out much that matters, and do not allow for the multifarious ways in which people can be enabled to enjoy a better life. Policies and actions need to be informed much less by top-down targets and much more by the diverse bottom-up realities of the powerless.

The questions are then: whose reality counts? Ours? Or theirs? Or more precisely: ours, as we construct it with our mindsets and for our purposes? Or theirs as we enable them to analyse and express it?

Robert Chambers: *"Power, knowledge and policy influence: reflections on an experience"* in Karen Brock and Rosemary McGee (eds) *Knowing Poverty: Critical reflections on participatory research and policy*, London 2002.

What is Poverty?
An historical perspective

by Peter Townsend, London School of Economics

Historically, poverty has been related to income, which remains at the core of the concept today. However, "income" is itself no less problematic a concept than "poverty"; it too has to be carefully and precisely elaborated. Other resources such as assets, income in kind and subsidies to public services and employment should be imputed to arrive at a comprehensive but accurate measure of income.

People can be said to be in poverty when they are deprived of income and other resources needed to obtain the conditions of life—the diets, material goods, amenities, standards and services—that enable them to play the roles, meet the obligations and participate in the relationships and customs of their society.

The determination of a poverty line cannot be based on an arbitrary selection of a low level of income. Only scientific criteria independent of income can justify where the poverty line should be drawn. The multiplicity and severity of different types of deprivation can constitute those criteria. The key is therefore to define a threshold of income below which people are found to be thus deprived.

The measure of multiple deprivations must be decided on the basis of evidence about each and every sphere of the range of social and individual activities people perform in fulfilment of individual and family needs, and social obligations. The degree of material and social deprivation relative to income is the basis for ascertaining the threshold amount of income ordinarily required by households of different compositions to surmount poverty. The application of this method permits analysis of trends in poverty in and across different countries.

The understanding and relief of poverty has been a major human preoccupation for many centuries. Since the 1880s, three alternative conceptions of poverty have evolved as a basis for international and comparative work. They depend principally on the ideas of subsistence, basic needs and relative deprivation.

The subsistence idea was a result of work prompted by nutritionists in Victorian England. Families were defined to be in poverty when their incomes were not "sufficient to obtain the minimum necessaries for the maintenance of merely physical efficiency". A family was treated as being in poverty if its income minus rent fell short of the poverty line. Although allowance was made in calculating the income level for clothing, fuel and some other items, this allowance was very small, and food accounted for much the greatest share of subsistence.

These ideas have influenced scientific practice and international and national policies for over 100 years. Examples are the statistical measures adopted to describe social conditions, at first within individual countries but later with wide application by international agencies such as the World Bank. The idea of subsistence was freely exported to member States of the former British Empire, e.g. for setting the wages of blacks in South Africa and framing development plans in India and Malaysia. In the United States, "subsistence" remains the basis of the official measure of poverty.

The use of "subsistence" to define poverty has been criticized because it implies that human needs are mainly physical rather than also social needs. People are not simply individual organisms requiring replacement of sources of physical energy; they are social beings expected to perform socially demanding roles as workers, citizens, parents, partners, neighbours and friends. Moreover, they are not simply consumers of physical goods but producers of those goods and are also expected to act out different roles in their various social associations. They are dependent on collectively provided

Three poverty concepts have evolved, based on ideas of subsistence, basic needs and relative deprivation.

Material needs are socially determined.

Globalisation connects peoples and living standards, while inequality is increasing.

Poor people are denied the resources to fulfil social demands and observe customs.

We need better poverty measures and regular UN monitoring reports.

utilities and facilities. These needs apply universally and not merely in the rich industrial societies.

The lack of elaborate social institutions and services in low-income countries and their scant resources direct our attention to whether or not the most basic material subsistence needs can be met in those countries. Meeting such needs as the satisfaction of hunger is widely accepted as a priority. Such needs have been included in the categorisation of "absolute" poverty, which however would better be labelled "extreme" or "severe."

Physical needs are subject to rapid change because of shifts in social activity and demand patterns. The need for material goods, their relevance to the society of the day, and even the goods themselves, are not, after all, fixed or unvarying. And the amount and kind, and thus the cost, of food depend on work, climate and social customs. So material needs turn out to be socially determined in different ways.

By the 1970s a second formulation—that of "basic needs"—began to exert wide influence, supported strongly by the ILO. Two elements were included. First, minimum consumption needs of a family: adequate food, shelter and clothing, as well as certain household furniture and equipment. And second, essential services provided by and for the community at large, such as safe water, sanitation, public transport and health care, education and cultural facilities. In rural areas, basic needs also include land, agricultural tools and access to farming.

The "basic needs" concept is an extension of the subsistence concept. In addition to material needs for individual physical survival and efficiency, there are the facilities and services—for health care, sanitation and education—required by local communities and populations as a whole.

The attractions to some of the "subsistence" concept included its limited scope and therefore limited implications for policy and political action. In the past and into the present, it seemed easier to restrict the meaning of poverty to material and physical needs than also to include the non-fulfilment of social roles, given the overriding emphasis of individualism. The "basic needs" concept, on the other hand, aimed at establishing at least some of the preconditions for community development. It played a prominent part in national development plans fostered by the international community, especially UN agenices.

In the late 20th century, a third social formulation of the meaning of poverty was developed: relative deprivation. "Relativity" as suggested above, applies to both income and other resources and also to material and social conditions. In the 21st century societies are passing through such rapid change that a poverty standard devised at some historical date in the past is difficult to justify under new conditions. People living in the present are not subject to the same laws, obligations and customs that applied to a previous era.

Globalisation is connecting peoples and their standards of living, while inequalities within and between countries are growing. There are, therefore, major objections to merely updating any historical benchmark of poverty on the basis of some index of prices. Over many years the "relativity" of meanings of poverty has come to be recognized, in part if not comprehensively. Adam Smith, for example, recognized the ways in which "necessities" were defined by custom in the early part of the 19th century, citing the labourer's need to wear a shirt as an example.

It is not enough to describe poverty as a condition applying to those whose disposable income is low relative to that of others. This is to fail to distinguish conceptually between inequality and poverty. Poor people are not just the victims of a maldistribution of resources but, more exactly, they lack, or are denied, the resources to fulfil social demands and observe the customs as well as the unfolding laws, of society. This criterion lends itself to scientific observation, measurement and analysis of multiple deprivations.

However, as with any formulation, there are problems in defining poverty operationally. Under the "relative deprivation" approach, a threshold of income is envisaged, according to size and type of family, below which withdrawal or exclusion from active membership of society is common. Establishing that threshold depends on accumulating the available evidence, and whether sociological and economic approaches may be reconciled.

Such reconciliation is some distance away. Despite the influence of Amartya Sen's contributions to development studies for two decades, his ideas on capabilities have not reached the mainstream of poverty analysis among economists, and have been said to leave important gaps.

There are forms of impoverishment, for example through social exclusion, when individual capabilities to overcome poverty are not at issue. Those capabilities are also identified as originating within the individual rather than with groups or nations collectively or being determined externally by market conglomerates. Again, the capabilities approach does not seem to address the structural sources of the capabilities of the rich and powerful. Capabilities are different from perceptions. These sometimes offer a valuable correction to independent analysis of behaviour and living conditions.

In an attempt to define poverty operationally, the World Bank in 1990 adopted a rule-of-thumb measure of US$ 370 per year per person at 1985 prices (the "dollar a day" poverty line) for poor countries. This crude indicator may have been a convenient interim measure for practical purposes, a short-term expedient, but has not turned out to be of continuing value.

Eliminating poverty requires better definition and measurement. We need (i) an international poverty line that defines a threshold of income (including in kind) required in different countries to surmount material and social deprivation; (ii) regular reports on the extent of poverty in every country, based on measures of both "absolute" – i.e. "extreme" – and "overall" poverty, as agreed in 1995 at the World Summit for Social Development. Thus, antipoverty policies must be monitored and evaluated regularly and on a much larger scale by governments, by the United Nations, by the international financial institutions and by other relevant international agencies. ■

Townsend, P.: Introduction, *Compendium of best practices in poverty measurement;* Expert Group on Poverty Statistics (Rio Group), Rio de Janeiro, September 2006.

The Human Poverty Index:
A multidimensional measure

by Sakiko Fukuda-Parr, The New School University

Poverty as a public policy concern, whether at the global, national or community level, is now widely considered to be a multidimensional problem. Over the last few decades, new perspectives on poverty have challenged the focus on income and consumption as the defining condition of poor people. Studies of the problems of poor people and communities, and of the obstacles and opportunities to improving their situation, have led to an understanding of poverty as a complex set of deprivations.

These alternative perspectives have refocused the concept of poverty as a human condition that reflects failures in many dimensions of human life – hunger, unemployment, homelessness, illness and health care, powerlessness and victimisation, and social injustice; they all add up to an assault on human dignity.

Strategies to eradicate poverty require not only economic growth and redistribution but also direct intervention in many areas such as expanding education, removing discrimination and securing social injustice; different types of deprivations in human lives are interrelated and reinforce one another.

For example, lack of education often defines the condition of a poor person but it is also an obstacle to other important aspects of a person's wellbeing, e.g. employment and income, good health and health care and other basic amenities such as clean water and sanitation. These are also interrelated with discrimination and lack of access to justice.

These ideas are not new but what is relatively new is their emerging as a consensus among policy makers, the public and development specialists. This is reflected in the adoption of the Millennium Development Goals, and as a conceptual shift in the treatment of poverty by the World Bank in their World Development Reports from 1980 up to the WDR 2000/01, which analysed poverty in terms of opportunities, empowerment and vulnerability. This consensus builds on a lively debate that challenged the income focus and argued for a human focus.

This debate included various perspectives on poverty, such as basic needs, participatory assessment, human rights, social exclusion, and capabilities; all of which are discussed elsewhere in this journal. The analytical application of the capability approach has been developed and diffused through UNDP's Human Development Reports (HDR). They view poverty as reflecting the lack of choices and opportunities in the key areas of education, health, and command over resources, as well as voice related to democratic processes. The first HDR in 1990 introduced the Human Development Index (HDI).

Despite this shift to a multidimensional poverty concept, monitoring has continued to rely on the income measure. At the global level, the $1/day (PPP) measure developed and updated regularly by the World Bank is the one that is consistently used to monitor the size and trends in global poverty. At the national level, most governments define poverty threshold lines by household income.

Measures of poverty used by researchers also rely on the income- and consumption-based national and international measures. For sure, a wide range of other indicators are used at both global and national levels. For example, the eight Millennium Development Goals have 49 indicators to monitor progress. But it is the income measure that is most used to gauge trends overall.

One reason why the $1/day measure is relied upon for overall monitoring purposes is the need to look at one number rather than 49 different ones to make an overall assessment of progress. It is useful to have focused measures of

Human poverty is a complex set of deprivations in many dimensions.

It has to be measured and analysed with this in mind.

Thus UNDP has developed the three-dimensional Human Poverty Index.

It shows a large spread of human poverty among countries with similar levels of income poverty.

Trends show good progress: 40 out of 44 covered countries, including many in Africa, have reduced human poverty levels.

critical areas of human wellbeing such as child mortality or access to clean water. But it is difficult to decide which one to use in making an overall assessment about whether poverty overall is improving or deteriorating. A composite measure therefore is needed to make this overall assessment that can aggregate the different features of deprivation.

The HDR 1996 introduced the Human Poverty Index (HPI) to fill this gap. It is a composite measure set in the capability and human development space, drawing on the several important perspectives that have enriched our understanding of poverty. In this framework, poverty is the deprivation side of human development – the denial of basic choices and opportunities to lead a long, healthy, creative and free life; to enjoy a decent standard of living; and to participate in the life of the community including political freedom and cultural choices.

HPI is a measure of capability deprivation; it aims to capture 'human poverty' as distinct from 'income poverty', i.e. failures to achieve the basic capabilities needed for human functioning rather than any given level of consumption or income. But like the HDI, the HPI is a highly incomplete measure and does not capture many of the dimensions of a full life, nor the social conditions that are necessary. Sen refers to five 'instrumental freedoms' as essential to a life of dignity, namely economic facilities, social opportunities, political freedom, security and transparency guarantees. Neither the HPI nor HDI include indicators of political freedom, security and transparency.

The challenges of measuring human poverty are considerable, starting with the selection of key dimensions, their weighting, and a search for appropriate data sets. Important aspects of human poverty, notably those relating to participation such as political freedom and cultural choices, are simply not quantifiable or lack data and thus not included. Still, HPI is a more adequate measure of deprivations in human lives than the income poverty measure.

Some very low-income countries reduced HPI more than many with higher income levels.

HPI focuses on three of the four key dimensions of HDI: the capability to (i) survive, measured by vulnerability to early death defined as before 40 years; (ii) be knowledgeable, measured by the adult illiteracy rate; and (iii) have access to private income as well as public provisioning, measured by the percentage of malnourished children under five and by the percentage of people without access to safe water.

These particular measures are not so relevant in the richer industrial societies. Thus, an adjusted index (HPI-2) was developed with indicators more suited to high income OECD countries. The HPI estimates are published in the annual HDRs. The new HDR 2006 shows some interesting trends that contrast it from the $1 a day measure. Although HPI and the $1 a day headcount measure are broadly correlated, there are considerable divergences between them (see page 9).

The correlation between income poverty and human poverty is weak, and there is a large spread in levels of human poverty among countries with similar levels of income poverty. Some countries with high levels of human poverty around 40% such as Pakistan and Yemen have relatively low levels of income poverty around 15-17% like Ecuador and China, which have reduced human poverty to around 10%.

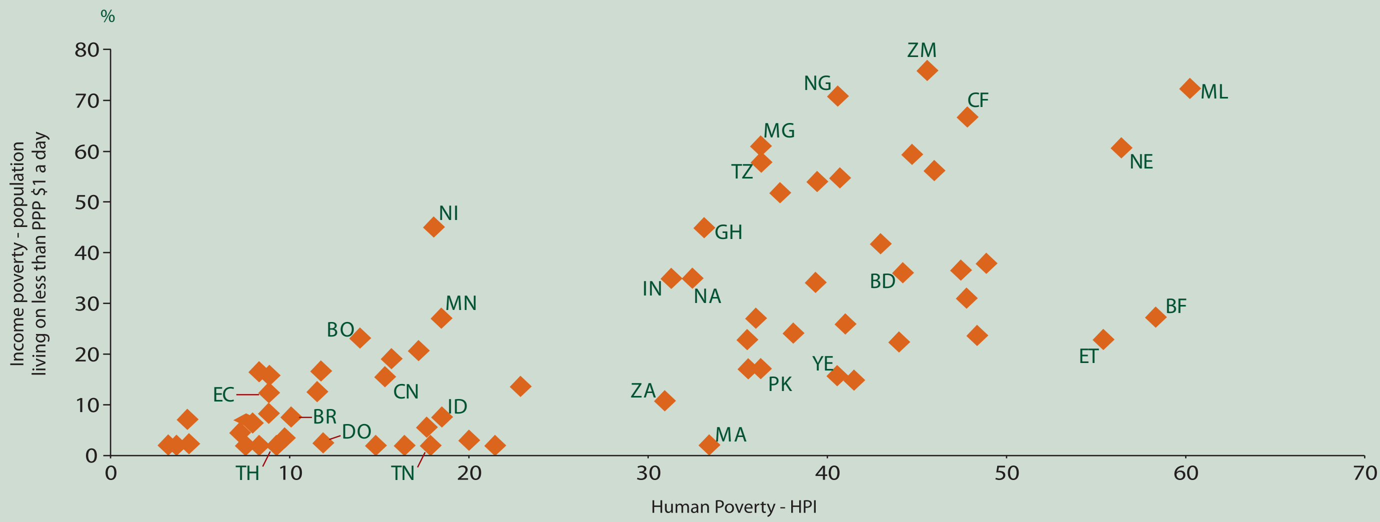
These data highlight both achievements and challenges for governments. Some countries with very low GDP per capita have achieved significantly more reduction in human poverty than countries with higher levels of income. Tanzania for example reduced human poverty to 36%, which is still high, though not when compared to their income poverty of 58% and per capita

HPI trends 1990-2002

Country	Change in HPI-value (%)	HPI 1990	HPI 2002	Rank 1990	Rank 2002	Change in ranks*
India	-12.1	43.5	31.4	33	26	-7
Viet Nam	-11.7	31.7	20.0	25	22	-3
Ghana	-10.5	36.5	26.0	26	24	-2
Tunisia	-10.0	29.1	19.2	23	21	-2
Nicaragua	-9.2	27.5	18.3	22	20	-2
Uganda	-8.9	45.3	36.4	35	30	-5
Morocco	-8.6	43.1	34.5	31	27	-4
Indonesia	-8.3	26.1	17.8	20	18	-2
Guatemala	-8.3	30.8	22.5	24	23	-1
Senegal	-7.6	51.7	44.1	40	37	-3
Madagascar	-4.8	40.7	35.9	29	29	0
Malawi	3.4	43.4	46.8	32	40	8
Botswana	19.8	23.7	43.5	17	36	19
Zimbabwe	25.8	26.3	52.0	21	41	20

* Negative value = rank improvement

Human poverty and income poverty



GDP of only PPP$ 674. This level of human poverty is similar to or lower than countries with much higher incomes, such as Pakistan (36%) and Bangladesh (44%), where per capita GDP is respectively PPP$ 2225 and PPP$ 1870.

Trends in human poverty are available in HDR 2004 for 12 years up to 2002 for 44 countries. They show important progress; 40 out of 44 countries show a net reduction in HPI, with India, Viet Nam, Ghana, Tunisia, Nicaragua, Uganda, Morocco, Indonesia and Guatemala having reduced poverty by over 8 percentage points. It is encouraging to note the many African countries having made progress. However, dramatic increases in human poverty were registered in Zimbabwe (26%) and Botswana (20%).

HPI estimates so far have shown a number of strengths:

- Policy priorities: Countries that show higher levels of human poverty in relation to income poverty or per capita income point to a need for greater policy attention on low social achievements, especially public provisioning related to health and education. Although HPI does not capture the full extent of deprivations in human lives, it covers the essential aspects of life that relate to social and economic policies, and that go beyond income alone.
- Feasibility: The HPI demonstrates the relevance and the feasibility of a multi-dimensional aggregate measure to monitor human as opposed to income poverty.
- Data availability: HPI uses internationally comparable data. While there are many gaps, the gaps in these data are fewer than the gaps in the PPP $1 a day estimates. HPI is estimated for 102 developing countries while the PPP $1 a day estimate is available for 94 countries.

Further work that could develop a more useful measure to monitor poverty include:

- Coverage: HPI covers 95 countries as compared with 174 countries for HDI.
- Global and regional estimates. HPI is of particular interest for monitoring global trends in the way that the $1/day income poverty estimates do. Global and regional estimates of HPI should be attempted.

HPI estimates show the relevance of aggregate, internationally comparable measures of multidimensional poverty. Intercountry comparisons of HPI sharpen the focus on human poverty that requires policy attention, and should be further developed to provide a global monitoring tool.

■

UNDP *Human Development Report 2006: Beyond Scarcity: Power, poverty and the global water crisis*, New York, 2006.

Country designations

BD =	Bangladesh
BO =	Bolivia
BR =	Brazil
BF =	Burkina Faso
CF =	Central African Republic
CN =	China
DO =	Dominican Republic
EC =	Ecuador
ET =	Ethiopia
GH =	Ghana
IN =	India
ID =	Indonesia
MG =	Madagascar
ML =	Mali
MN =	Mongolia
MA =	Morocco
NA =	Namibia
NI =	Nicaragua
NE =	Niger
NG =	Nigeria
PK =	Pakistan
ZA =	South Africa
TZ =	Tanzania
TH =	Thailand
TN =	Tunisia
YE =	Yemen
ZM =	Zambia

*by Caterina Ruggeri Laderchi,**
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Does the Definition of Poverty Matter?

Comparing four approaches

Poverty definitions and measurement have important implications for targeting and policy.

Empirical evidence shows that poverty rates vary a lot when different concepts and measures are used.

A study of India and Peru found different people identified as poor depending on which approach was adopted.

Clearer definitions and measures are essential for poverty-centred development policies.

There is now world-wide agreement on poverty reduction as an overriding goal of development policy, but not on the definition of poverty. Does this matter for policy and practice? We reviewed the monetary, capability, social exclusion and participatory approaches to defining and measuring poverty; they do have different implications for policy, and also for targeting since they identify different people as being poor.

There are a number of issues involved in defining and measuring poverty. Is it confined to *material* aspects of life, or does it also include *social*, *cultural* and *political* aspects? Is it about what *may be* achieved, given the resources available and the prevailing environment, or what *is actually* achieved? Should definitions and measurement methods be applied in the same way in all countries and used for comparisons? Are there "objective" methods, or are value judgements involved? What is the rationale for defining a poverty line? Should it be *absolute* as in the Millennium Development Goals and in most developing countries, or *relative* as in the rich OECD countries?

Some further issues: Should poverty be defined and measured at the individual, household or geographic area level; and for what respective purpose? The *multidimensionality* issue—considering that individual well-being/poverty manifests itself in multiple dimensions, should an aggregate index be developed, and how? Finally, the *time* horizon over which poverty is identified needs to be specified—many people move in and out of poverty over seasons and years, hence the longer the time perspective the less poverty will appear.

The monetary approach to the identification and measurement of poverty is the most commonly used. It identifies poverty with a shortfall in consumption (or income) from some poverty line. The valuation of the different components of income or consumption is done at market prices, which requires identification of the relevant market and the imputation of monetary values for those items that are not valued through the market (such as subsistence production and social services and, in principle, other public goods).

Various technical solutions have been suggested for differentiating the poor and non-poor using the monetary approach, although there is no theory of poverty that would clearly differentiate the poor from the non-poor. Relative poverty lines can be determined by political consensus. Attempts to find an objective basis for an absolute poverty line aim at identifying behavioural breaks between the poor and non-poor. The nutritional needs for survival provide the most common basis for such a break.

Yet there are problems about nutritionally-based poverty lines. Differing metabolic rates, activities, size, gender and age among people mean that what is adequate varies among them. Moreover, differing tastes, food availability and prices affect how much money income is needed to secure any particular level of nutrition. Moreover, poverty lines are often drawn up at the level of the household, disregarding how the intra-household distribution affects individual nutrition levels. All this suggests that it is not possible to draw up a unique poverty line based on nutritional requirements.

The three other approaches to deprivation address some of the perceived defects of the monetary approach.

The capability approach (CA) rejects monetary income as its measure of well-

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being, and instead focuses on indicators of freedom to live a valued life. Poverty is defined as failure to achieve certain minimal or basic capabilities, i.e. the ability to satisfy adequately certain crucially important functionings. Many analysts have proposed generic lists of essential capabilities, but they tend to reflect current western conceptions of the "good life", raising doubts on its ability to reflect an "overlapping consensus". Defining operational CA measures poses a number of methodological issues.

The concept of social exclusion (SE) describes the processes of marginalization and deprivation that can arise even in rich countries with comprehensive welfare provisions. It is a reminder of the multiple faces of deprivation. SE is perhaps the most difficult to interpret of the poverty concepts under review. Still, SE is the only approach that focuses intrinsically on the processes and dynamics that allow deprivation to arise and persist.

Moreover, the analysis of exclusion lends itself to the study of structural characteristics of society and the situation of marginalised groups (e.g. ethnic minorities or the landless), whereas the monetary and capability approaches tend rather to focus on individual characteristics and circumstances. SE leads to a focus on distributional issues—the situation of those deprived relative to the norm generally *cannot* improve without some redistribution of opportunities and outcomes. SE also points to *excluders* as well as *excludees*, again a contrast to the previous approaches that describe a world without analysing or attributing responsibility.

The participatory approach (PA) aims to get people themselves to participate in decisions about what it means to be poor and the magnitude of poverty. The major advantage is that it largely avoids externally imposed standards. PA also provides a way of solving some of the problems encountered with the other methods. For example, they help to define: an appropriate minimum basket of commodities for the monetary approach; a list of basic capabilities in the capability approach; and whether the concept of SE can be applied in a particular society and what its main elements might be. The PA method is complex and invariably contains multidimensional analysis. Like the SE it includes processes, causes and outcomes of poverty, as perceived by the poor. The PA is apparently cost-effective, but the community spends much more time on these exercises.

A critical issue for our comparison is whether the four approaches identify broadly the same people as poor; as if they do the theoretical differences may be unimportant in policy or targeting terms. Despite its theoretical deficiencies, monetary poverty could be used as a proxy for other types of poverty if broadly the same people are identified as poor under the different measures.

Empirical evidence indicates that poverty rates differ significantly according to the approach adopted, for countries as a whole and for regions of the world. Country ranking differs in comparing capability poverty and both international and national monetary poverty lines. Different measures of deprivation are associated, and indeed the different measures do not seem independent (see page 9). What is striking, however, is that low levels of poverty according to one measure are compatible with high levels of poverty according to another.

It is this variability which points to the potential lack of overlap in practice between different ways of measuring poverty, and it is this variability which calls for in-depth empirical assessment of the underlying causes. Such empirical tests can also show whether different measures are capturing different populations.

A study of India and Peru, drawing on both national data sets and micro-surveys, found that significantly different people were identified as poor in the two countries according to whether the monetary, capability or participatory approach was adopted.

The national data sets showed that in India, using the national poverty line, monetary poverty, at 38%, was below capability poverty: 52% of adults were education poor (illiterate); and 26% of children were education poor (not attending primary school); 70% of children less than 13 years old were undernourished, 44% severely; but only 7% of individuals between 7 and 59 suffered from chronic illness.

In Peru, in contrast, monetary poverty at 54% (again using a national poverty line) was greater than capability poverty: 20% of the adults and 7% of the children were education poor; 10% of adults were health poor and 29% of the children below 5 years were undernourished.

The India/Peru study had problems in estimating social exclusion. It had been intended that the participatory focus groups would define social exclusion, and this definition would then be applied to the data set. But none of the participatory activities generated a definition of social exclusion—none of the groups saw themselves as socially excluded.

Poverty definitions and measurement have important implications for targeting and policy. The considerable lack of overlaps between the different approaches means that targeting according to one type of poverty will involve serious targeting errors in relation to other types. Moreover, definitions also have implications for policy. While a monetary approach suggests a focus on increasing money incomes (by economic growth, or redistribution), a capability approach tends to lead to more emphasis on the provision of public goods. Social exclusion draws attention to the need to break down exclusionary factors, for example, by redistribution and antidiscrimination policies.

This suggests that identification and targeting of the poor with combined methods should be more widely adopted, reflecting the current concerns for a broad characterization of poverty. Definitions do matter. Clearer and more transparent definitions of poverty are an essential prerequisite of any development policy that puts poverty reduction at its centre. ■

Caterina Ruggeri Laderchi, Ruhi Saith & Frances Stewart: ***Does it Matter that we do not Agree on the Definition of Poverty? A Comparison of Four Approaches. Oxford Development Studies, September 2003.***

by Gustav Ranis, Frances Stewart and Emma Samman, Queen Elizabeth House, Oxford University*

Human Development: Beyond the HDI

UNDP's HDI and HPI measures include only a few basic aspects of human development.

This article reports on a study that identified many more relevant indicators.

Correlation analysis found 31 indicators with different trends from each other and also from HDI.

Income per capita proved a poor indicator of human development.

Assessing human development fully requires a broad set of indicators.

Human Development (HD) has been defined as 'a process of enlarging people's choices'. Although HD is often equated with the UNDP's Human Development Index (HDI) in popular discourse, it has long been recognized that this is an incomplete measure of HD, leaving out many important aspects of life; it encompasses only three rather basic elements of human wellbeing. Our aim is to identify a broader set of dimensions of wellbeing constituting HD and indicators to measure them. We then explore whether the HDI in fact is a good measure of the broader dimensions or whether additional indicators are needed.

Defining what makes for a fulfilled life has been a central theme of philosophers and politicians throughout history. Aristotle's *Ethics*, for example, was devoted to identifying the conditions needed to achieve *eudaimonia*, commonly interpreted as 'the best life'.

Our first task is to identify which aspects of life might reasonably qualify as part of a broader conception of HD. Many attempts have been made to identify what makes for a flourishing life. Here we will consider six lists, each of which adopts a different philosophical approach and justification (see page 13). The lists are not in total agreement; some emphasize certain aspects more than others for example regarding material and mon-material aspects such as friendship and emotions, and environmental issues.

Surveying these attempts to define the full life, we find that they are in broad agreement about the main dimensions to be included. In the light of this, we drew up a list of the categories of life that are candidates to be included as part of an enlarged conception of HD (see box below).

Any list of categories is inevitably both subjective and ethnocentric. Hence, anyone finding this type of approach helpful should be able to amend the categorization to reflect different views. This applies especially across different cultures.

Unlike some of the reviewed literature listings of human flourishing, our list does not include spiritual well-being, due to problems of definition and measurement. We separated social relations, which concerns individuals having satisfactory relations with others, from community wellbeing, which concerns the community as a whole and includes such elements as low crime rates and a thriving civil society. We also separated empowerment from

Enlarged conception of HD

1. The HDI itself, which includes health, education and a measure of income
2. Mental wellbeing – an individual's psychological state
3. Empowerment
4. Political freedom
5. Social relations
6. Community well-being
7. Inequalities
8. Work conditions
9. Leisure conditions
10. Political security – freedom from political violence or instability
11. Economic security – freedom from economic fluctuations
12. Environmental conditions

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Requirements for human flourishing

Authors	Rawls (1972)	Finnis, Grisez, and Boyle (1987)	Doyal and Gough (1993)	Nussbaum (2000)	Narayan -Parker (2000)	Camfield (2005)
Defining concepts	Primary goods	Basic human values	**Basic needs** and Intermediate needs	Central human functional capabilities	Dimensions of wellbeing	Quality of life
Bodily wellbeing		Bodily life – health, vigour and safety	**Physical health** -Nutrition: food and water -Health care -Safe birth control and child bearing -Safe Physical environment	Life Bodily health Bodily integrity	Bodily well-being Access to health services Good physical environment	
Material wellbeing	Income and wealth		Protective housing Economic security		Material well-being Food Assets	Food Shelter
Mental development		Knowledge Practical reasonableness	Basic education	Senses, Imagination, Thought Emotions Practical reason Play		Education (Bangladesh and Ethiopia, vs. Thailand and Peru)
Work	Freedom of occupation	Skillful performance in work and play	Work		Work	
Security			Physical security		Civil peace Physically safe environment Lawfulness (access to justice) Personal physical security Security in old age	
Social relations	Social bases of self-respect	Friendship	Significant primary relationships	Affiliation Social bases for self-respect	Social well-being -Family -Self-respect and dignity -Community relations	Family
Spiritual wellbeing		Self-integration Harmony with ultimate source of reality				Religion (important in Bangladesh and Thailand)
Empowerment and political Freedom	Rights, liberties, opportunities Powers & prerogatives of office & positions of responsibility Freedom of movement		Autonomy of agency Civil and political rights Political participation	Control over one's environment	Freedom of choice and action	
Respect for other species				Other species		

political freedom, as the former focuses on the lack of power of particular groups, while the latter relates to liberal political conditions more generally. We included inequalities as a general category, because they affect wellbeing independently, especially that of the poor.

We then identified indicators of performance in each of the categories from international data sets. Analysing correlations among the indicators within each category across countries, and discarding those that are highly correlated with others in the same category, left 39 indicators to encompass the eleven non-HDI categories. Of these, eight indicators are highly correlated with the HDI and may therefore be represented by it. But 31 are not highly correlated, suggesting that a full assessment of human development requires a much broader set of indicators than the HDI alone. We found that under-five mortality rates do as well as HDI, but PPP income per capita is less representative of other dimensions of human development. The HDI (and the other two broad indicators) are shown to be worse indicators of the extended conception of human development for OECD countries than for developing countries.

Our research thus explores empirical correlations, but does not attempt to investigate causality. We recognize that our procedures are somewhat arbitrary and a change in the dimensions used, the thresholds adopted, etc., would yield somewhat different results. Our basic purpose, however, is not to be definitive but to show that extending the concept and measurement of Human Development to a broader set of dimensions seriously affects the way one should measure and assess country performance.

In future work in this area, we intend to identify typologies of developing countries/regions according to their success or failure over time with respect to the different dimensions of HD and relate this to potential policy choices. To the extent that data are available, we would also like to trace the historical progress of the current OECD countries in the various categories, which may help in drawing conclusions about transitions over time.

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Human Development: beyond the Human Development Index by Gustav Ranis, Frances Stewart and Emma Samman. *Journal of Human Development* 7, 3, 323-358.

The Ethical Poverty Line:
A moral definition of absolute poverty

by Peter Edward, Judge Business School, Cambridge, UK

The first Millennium Development Goal (MDG) to halve 'extreme' poverty by 2015 has been justified as a moral duty. However, this morality is only partial if absolute poverty is defined by the $1-a-day poverty line. We need a morally defensible poverty line.

Poverty defined as a lack of well-being is clearly multidimensional. The MDG and World Bank $1-a-day poverty line, being a solely monetary measure, has therefore rightly been criticised as inadequate and monodimensional. Yet, it is the most widely recognised poverty estimate in use today. The objective of this article is to demonstrate that, even if we accept a monetary measure of poverty, the $1-a-day poverty line is unrealistically low thus misleading policy makers and the public on the extent of global poverty and the scale of redistribution needed to remove it.

The basis for the $1-a-day poverty line is simply that it is the median of 10 of the lowest national poverty lines in the world. It is not derived from any consideration of well-being or basic needs. The World Bank economists most involved in this area, recently called it 'frugal', stating that it 'must be deemed a conservative estimate whereby aggregate poverty in the developing world is defined by the perceptions of poverty found in the poorest countries'. The implication is that the $1-a-day poverty line is unreasonably low. Almost certainly it is lower than developed world populations would consider morally justifiable. Indeed, the World Bank does increasingly quote poverty indices for a $2-a-day line that seems to be based simply on a doubling of the $1-a-day poverty line.

World income distribution curves show the highest population density between

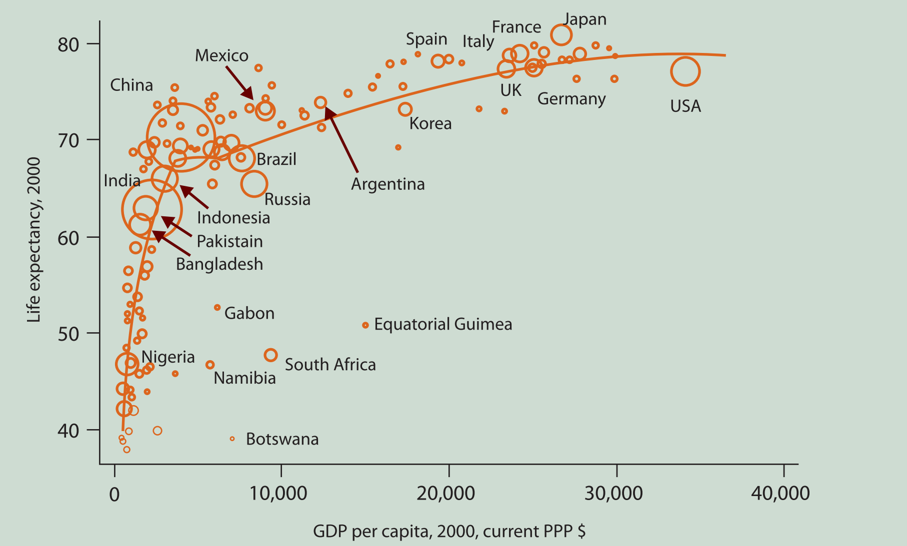
"We are one moral universe. And the shared moral sense common to us all makes us recognise our duty to others."

Gordon Brown, UK Chancellor of the Exchequer, advocating a "Marshall Plan" for the world's poor.

the $1-a-day to $2-a-day poverty lines. Thus, the poverty headcount is very sensitive to changes in the poverty line, especially around those levels. If the public and policy makers are to recognise just how much poverty there is in the world, a clear, relevant and morally justifiable basis for setting the poverty line becomes essential.

The ethical poverty line (EPL) proposed here is derived from globally standardised and ethically justifiable wellbeing outcomes for which sufficient data already exist in the World Development Indicators (WDI). The EPL does not overcome the inherent problem of all income poverty lines, namely that they oversimplify and reduce the complexity of global poverty to a monodimensional monetary measure. However, the EPL at least provides a morally defensible basis for setting the line.

The Preston curve: life-expectancy versus GDP per capita



Note: Circles are proportional to population.

The intellectual background to the EPL draws on two specific areas of research; first by economists on wellbeing measures and their determinants; and second on public health, relating individual life-expectancy to individual income levels. These two areas can be combined to derive an international poverty line directly from aggregate life-expectancy (i.e. wellbeing) outcomes. The association between life-expectancy and income was first explored by health economists who showed how *national average* life-expectancy falls rapidly when average income levels fall below a critical level (see figure). A similar correlation was found by public health researchers between *individual* income and life-expectancy, indicating a maximum life-expectancy around 73 to 75 years beyond which increases in income have little or no further effect.

If poverty is best defined in terms of low levels of wellbeing rather than income, and life-expectancy at birth is the indicator of well-being, then an ethical poverty line can be developed by modelling the relation between national average life-expectancy outcomes and their underlying source in individual absolute poverty levels. The model assumes the observed fact of a "kink" in the correlation curve indicating the critical consumption level.

Applying the model to national populations disaggregated by consumption level, the statistical correlation was established between modelled life-expectancies and the actual ones published in WDI. Similar correlations were achieved from the best of the functions investigated for the model. Collectively these results set the kink consumption at between $2.7-a-day and $3.9-a-day, and probably around $3-a-day. To err on the side of caution, the following discussion of the results is entirely based on the function that sets kink-consumption at its lowest and hence least challenging level, namely $2.7-a-day.

The results can be interpreted as showing that, given the current state of world development, it is reasonable to expect to live to 74 years if you have 'adequate' consumption. Based on average performance across the world (excluding the worst distorting effect of AIDS in Africa), $2.7-a-day (in 1993 PPP prices) should be 'adequate'. Consumption above this level adds only nominal years to expected lifespan. Consumption below this level reduces expected lifespan dramatically.

Applying an ethical dimension to the kink model assumes that none of us would wish to be born into such a low consumption level that our lifespan risked dramatic shortening solely as a result of that poverty. Invoking the Golden Rule—'Do unto others as you would have them do unto you'—we might argue that every community should be entitled to achieve a minimum consumption level sufficient for all individuals to expect to live a reasonably full lifespan. On this basis 74 years could be considered to be a reasonable lifespan and $2.7-a-day would be the global ethical poverty line (Global EPL). In this sense the kink consumption becomes not only an absolute poverty line but also an Ethical Poverty Line (EPL).

This Global EPL is obviously significantly higher than the established $1-a-day line. However, it is not unreasonable. The World Bank increasingly uses a $2-a-day poverty line which is considered to be more representative of the poverty lines of middle-income countries. The average national poverty line in the developing world is is reported to be close to $2 per day , providing a further argument for raising the international poverty line to around this level.

This analysis still includes a significant number of countries in sub-Saharan Africa, where problems such as AIDS and civil war lead to premature death. While these problems are undoubtedly associated with poverty, they are not directly caused by a lack of consumption and they certainly cannot be resolved merely by increasing the consumption of the poor. Consequently their inclusion in the analysis introduces an upward bias into the EPL calculation that some might argue was unreasonable.

Recognising this, the EPL has also been recalculated separating out all of sub-Saharan Africa. The results are striking. As expected, this Minimum EPL is lower than the Global EPL at around $1.9-a-day. The kink lifespan (72 years) is little altered and stands in stark contrast to sub-Saharan Africa. There, the kink lifespan falls to 48 years, while the very low poverty line ($0.6-a-day) may well indicate that, only for those in the most extreme poverty, do the risks of premature death from lack of consumption outweigh the very high risks of death from other causes. This may well be striking evidence of the dramatic impact of AIDS in the region.

What then are the implications of using the EPL to define absolute poverty? The table summarises a number of poverty indicators for the $1-a-day poverty line, the $1.9-a-day Minimum EPL and the $2.7-a-day Global EPL. Compared with the $1-a-day line, the Minimum EPL more than doubles the number of people considered to be in poverty to 2.5 billion, or 40% of the world's population, while the Global EPL lifts this to 3 billion, or 50% of the world's population. To remove poverty at the Minimum EPL level, the share of the world's output that these poor consume would need to increase by 70%. Yet this is still only a poverty gap of 5% of global consumption.

Indicators from poverty lines

Poverty Line	*World Bank $1-a-day*	*Minimum EPL $1.9-a-day*	*Global EPL $2.7-a-day*
Counting the poor			
Poverty head-count (millions)	1050	2500	3100
Poverty rate (head-count as % of global population)	17%	41%	51%
Poverty gap ($billions PPP)	140	900	1980
Poverty gap as % of global GNI	0.7%	4.7%	10.4%

This may look like a fairly small proportion of global consumption. It is put more clearly into perspective, however, by estimating the extent of redistribution that would be required if we wanted to eliminate global poverty today. For example, the cost of 'merely' removing $1-a-day poverty would be equivalent to a 30% global tax on the consumption of roughly the richest 1% of world population, affecting one in 10 people in the USA and one in 20 in the UK.

Raising the poverty line to the EPL both puts many more people in poverty and raises the threshold that each poor person has to climb over to get out of poverty. The redistribution implications of the EPL are huge. For example, the cost of removing ethical poverty today (conservatively based on the Minimum EPL line) would be comparable to an additional global tax of 30% on all consumption above US median levels. As a tax levied on anyone, anywhere in the world, it would affect 6% of world population, including half the US population and one in three people in the UK. If we wanted to remove ethical poverty at the higher Global EPL level, this tax would extend to four-fifths of the US population and almost three-quarters of the UK population.

The EPL, therefore, reveals that the price to be paid for accepting a moral duty to remove poverty today is one that would cut deeply into the pockets of developed world populations.

■

Peter Edward: *The Ethical Poverty Line: a moral quantification of absolute poverty* Third World Quarterly, Vol. 27, No. 2, 2006.

A New Measure of the Poverty Line

by Lord Meghnad Desai, the London School of Economics

There is now a huge literature on poverty, its measurement and its cure. This article concentrates on the question of drawing up the poverty line, the absolute level of income or consumption below which people are said to be in poverty.

Two measures are considered as basic references, (i) the UNDP Human Poverty Index (HPI, see article by Sakiko Fukuda-Parr, page 7), which includes life expectancy, literacy, access to safe water and child malnutrition as the criteria for defining the proportion of population who are poor, and (ii) a new method for determining the poverty line using utility theory as proposed by Nanak Kakwani, International Poverty Centre (see page 20).

This article suggests a new measure whereby the two approaches can be reconciled.

It does so by using the Hicksian concept of income as the maximum that can be spent from a stock of capital while leaving the value of the stock intact. It links therefore income generation and consumption to define the poverty line.

How to draw up the poverty line, below which people are said to be in poverty?

A new measure is proposed, based on the need to maintain a person's labour capacity intact.

Definitions of absolute poverty have been *static, calorific, asocial* and *atheoretical*. Typically a basket of goods is defined which will, at minimum cost, afford a required *calorific* standard to an individual or a household. That cost is then augmented to reflect the share of food in the total budget of a sample of the population for which the poverty line is being drawn.

The thus derived poverty line is typically *static* since it is taken to be a constant over time, except for inflation adjustment. It is *asocial* since it is uniform for individuals of all ages and both sexes, regardless of health status and special needs. It is *atheoretical* because the absolute poverty level concept fixes a priori an arbitrary level of calories with no choice involved.

Yet the biggest criticism of such measures is that they focus on a passive variable, consumer expenditure, while ignoring the income generation process. Inadequate income is after all the root of poverty. A composite measure such as the HPI looks at the family as a whole and factors in several dimensions of human poverty. These two ways of looking at poverty should be combined into a single one.

We assume a household with some adults of working age and capacity as well as children. The adult labour power is an asset which will yield an income if employment can be found. Although the household may also have access to land and/or credit or some form of non-human capital, we first focus on labour power alone in the case of a person seeking paid work as hired employee. This capacity to work crucially depends on food intake, health and literacy.

From these assets the individual can expect a flow of income, which will depend on the demand for work and the wage rate. For someone self-employed, for example a peasant cultivator, it will depend upon expectations of yield and the price of output.

We can define the poverty line as that level of expected income which allows the individual to consume enough food while maintaining his or her labour power intact. In particular, we can say that enough food should be purchasable which will prevent any deterioration in health. The poverty level will then crucially depend on the availability of work and the wage rate. If the individual cannot earn enough to be able to eat so as to prevent deterioration in health, and, in general, labour power, then he or she is poor.

There are several advantages to this definition when compared to the standard definition which relies on calories. For one thing it is dynamic; as availability of work or wages change, e.g. due to seasonal changes or because the individual's health may deteriorate, he or she will move in and out of poverty. It also relates the consumption of food to income generation while avoiding imposing any specific calorific requirements. It is firmly based in an economic theoretic definition of income.

The definition connects in an obvious way to issues of health and nutrition and thus builds a bridge between monetary measures and the HPI. In principle, though data demanding in practice, we can define this critical food intake at individual level allowing for age, gender, health status.

There are of course several caveats to be added. It is at an individual level and only for a wage labourer. It also simplifies the income generation process by taking the wage as given and letting the uncertainty attach to the hours worked. It will need to be extended to other income generation processes such as peasant cultivation whether as a sharecropper or tenant farmer or small landholder. There is also the need of aggregating over members of a household. No doubt others will point out many more caveats which need to be made.

But the new approach presents in a highly simplified fashion a way of connecting consumption and income generation via the notion of labour power/capacity to work. It allows for different levels of required food consumption for different individuals and thus breaks away from any uniform "dollar-a-day" notion. ■

by Ravi Kanbur,
Cornell University

Measuring Poverty with a Changing Population

Poverty incidence may fall while the number of poor people grows. Has poverty then fallen or risen?

Most poverty measures show a decrease when the mortality among poor people is higher than that of the rest.

Should those who would have been alive but for their poverty be included when counting the poor?

Is poverty unchanged when as many people have become poor as those who have escaped poverty?

The basic structure of poverty measurement has been built on intuitions that are strong when the population whose poverty is being measured is fixed and given. But when it is changing, standard measures of poverty can lead to uncomfortable or dissonant conclusions. To illustrate and explain this point, I want to consider income distribution at two points in time when the population has also changed in some way. I will look at three population size scenarios—increased, decreased, and unchanged but with churning around a constant income distribution.

Consider a country where the incidence of poverty is falling by 1 percentage point per annum but population is rising by 2 percentage points per annum. Poverty as normally measured—the number of poor people as a proportion of total population—has fallen. But the *absolute number* of the poor has risen. This is not just a statistical curiosum, but it can occur, and has occurred in countries, like those in Africa, where population growth is relatively high.

Such an outcome can lead, and has led, to dissonance between the claims of economists that poverty has fallen, and the ground level, lived experience of those who work with the poor and of the poor themselves. "How," the latter group exclaim, "can you economists claim that poverty has gone down, when the soup kitchens are fuller than ever before and there are more street children than ever before?"

The answer is found in some variant or other of the "population replication axiom", which undergirds every commonly used measure of poverty. Imagine two societies identical in everyway. There is poverty in each, but it is identical poverty. Now imagine that we combine these two societies into one. Would you say that poverty has stayed the same, or doubled? The population replication axiom asserts categorically that poverty is unchanged. From this comes the mathematical form of most of our poverty indices, where total population is found in the denominator of the formula. But if you would say that in this example poverty has doubled, because there are twice as many poor people, then you would not buy into the population replication axiom. I believe that most ground level activists, those who actually deal with poverty, would indeed be concerned about the larger numbers of the poor.

Since the issue is about an axiom, it is not necessarily about being "right" or "wrong". At the very least it is about seeing things in different ways, and it is about asking statistical agencies to produce both sorts of numbers—normalized by population size, and not so normalized. It is good that the World Bank has started doing this. With this information, we might better understand the incomprehension of those who see official poverty figures going down while experienced poverty, the number of the poor, goes up.

Let me now construct another scenario. Starting from a given distribution of income, suppose that some of the poor die because of poverty. Of course, the absolute number of poor goes down. It is easy to check that even the proportion of poor will go down. Thus the conflict discussed above is no longer present.

Poverty has gone down whichever way you measure it, *but only because poverty has killed the poor!* And this is not just a curiosum either. This phenomenon will be present to some extent whenever mortality is higher among the poor than among the rich, which is of course a very commonly observed phenomenon. And it will arise for a wide variety of poverty measures, not just the incidence of poverty. Moreover, the issue arises also in the measurement of health status of a population, and in the discussion of whether AIDS deaths can deliver a dividend in the form of an increase in per capita income.

This cannot be right. We cannot have our standard poverty measures rewarding policies that reduce poverty by eliminating the poor. Put another way, we cannot have our standard poverty measures penalizing policies that prevent the deaths of the poor. And yet, the Number 1 Millennium Development Goal, of halving the incidence of poverty over a given length of time, is wide open to this objection. We have been led, somewhat unthinkingly, into this trap because the intuitions that work well when population is fixed go awry when it is changing.

The answer to this conundrum is not easy, because among other things it forces us to ask how far back we want to go in evaluating today's poverty. Had some poor children who died yesterday been alive today, poverty would have been higher. But how would we count those who died a hundred years ago because of poverty? If a year ago is too short, and a hundred years ago is too long, where in between is the right cut-off?

An alternative is to have measures of income poverty stay as they are, but also include measures of mortality (among the poor) in our evaluation. This is the direction taken by UNDP's Human Poverty Index, which has the proportion of people likely to die before the age of 60 as a component along with an income poverty measure. But the specific assumptions underlying any measure need to be made clear; in particular how to define the population whose wellbeing is being evaluated. Those currently alive, which is the present empirical method, and which gets us into the difficulties noted above? Or do we include some of those who would have been alive but for their poverty? An explicit derivation of measures that satisfy key assumptions and basic intuitions is some ways away.

Let us finally turn to a situation where both the population and the income distribution is unchanging, but the different income slots are occupied by different individuals at different times. In other words, there is mobility. Consider the simplest case, where there are two income levels, one below the poverty line and one above the poverty line. In one society, the rich stay rich and the poor stay poor. In another, the rich and poor swap places every period. To keep tings conceptually simple, let there be no saving or investment, so that income is consumption. The snapshot poverty (income or consumption) is unchanging period to period, of course, and is the same in the two societies. But are these two societies really the same in terms of poverty?

The answer depends on our intuitions of what the experience of poverty means, and whether the experience of poverty in one period for an individual can be "washed away" by an above poverty line experience in another. Imagine yourself at the end of Shakespeare's play, King Lear. You see a once powerful man brought low and you heart goes out to him. Then someone says, "Well, you know, the first fifty years of his life weren't all that bad, and all in all…." To aggregate over Lear's life is to miss the point and the poignancy of his downfall.

To aggregate poverty experiences with above poverty line experiences for an individual is equally, in my view, to miss the point about poverty—at least if we take the idea of poverty seriously enough to set it apart from non-poverty, as we do in the way that we measure poverty. On the King Lear view, therefore, the two societies I described above have the *same* poverty. If this makes you uncomfortable, and at the same time you find something compelling about the Lear example, then you will agree that this issue has not been fully addressed in our measurement of poverty.

The three conundrums exposited here are meant not to paralyze the measurement of poverty but to invigorate the discussion of the assumptions that underlie the standard measures of poverty. I look forward to the response. ■

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Can the experience of poverty in one period for an individual be "washed away" by an above poverty line experience in another?

by Nanak Kakwani, International Poverty Centre, UNDP

Poverty and Wellbeing

Economic growth is not a good indicator of poverty reduction.

Poverty means low levels of wellbeing, not just low income; measures must relate closely to people's lives.

Poverty is failure of socially determined basic capabilities, but only when caused by lack of resources.

A new international poverty line is needed. It should reflect the cost of basic human needs.

According to the 2000 World Development Report (WDR), "poverty is pronounced deprivation in wellbeing". But what does wellbeing mean? How do we define it? What are the elements necessary to ensure a decent level of wellbeing? These are not easy questions to answer.

In the socioeconomic literature, several approaches have been used to describe wellbeing; important among them are basic needs, economic growth, quality of life and welfare. How do these approaches differ? And, which approach is the most appropriate to describe wellbeing? This article deals, briefly, with these broad questions.

In any society, some people obviously enjoy higher levels of wellbeing than others. Poverty is viewed here as the lowest level of wellbeing, which is experienced by those people in society who are so deprived that they are unable to function with dignity. As stated in the 2002 WDR, to be poor "is to be hungry, to lack shelter and clothing, to be sick and not cared for, to be illiterate and not schooled".

Economic growth provides greater command over goods and services and thus, on average, gives people greater choices. However, this does not necessarily imply higher wellbeing for everyone; the benefits of economic growth are never shared equally. Increasing per capita income is not an appropriate indicator of changes in the aggregate wellbeing. Economic growth is a means and not an end of development and thus must be supplemented with indicators that are more closely related to individual lives.

People want income because it gives them the possession of commodities, which they consume. The higher the income the greater the command people have over commodities. The possession of commodities, which include services, provides people with the means to lead a better life; thus, the possession of commodities or opulence is closely related to the quality of life people lead. But it is only a means to an end. As Amartya Sen points out, "ultimately, the focus has to be on what we can or cannot do, can or cannot be". Thus, wellbeing must be seen in terms of individual achievements and not in terms of means that individuals possess.

The wellbeing or standard of living is not about the possession of commodities, but it is about living. This line of reasoning led Sen to develop the ideas of "functionings and capabilities". Thus, a 'functioning' is an achievement, and a 'capability' is the ability to achieve. Functionings are directly related to what kind of life people actually lead, whereas capabilities are connected with the freedom people have in the choice of life they lead, which is their functionings.

Income allows an individual to purchase commodities with which he or she generates various functionings. But all individuals cannot convert commodities into functionings to the same degree. For instance, a disabled person may not be able to do many things that an able-bodied individual can do with the same commodity. Thus, in measuring wellbeing or standard of living, our focus should be on the achievements of people and not on the commodities they possess.

It may seem obvious that the higher the income people have, the greater will be their capabilities. After all, it is an observed fact that rich countries do have a higher standard of living than poor countries. But the relationship between the two is not as simple as it appears. For instance, consider a country, which has succeeded in reducing mortality so much that its per capita GDP falls because of the resulting increase in population; has the country's living standard improved or deteriorated? The answer is not clear. The fall in per capita income shows that the average citizen has become poorer, while at the same time the country has extended the capability of its citizens to live a longer life. This example demonstrates the complex nature of the relationship between the income and the capabilities people possess.

It is not uncommon to think that ultimately it is the happiness of people that really counts. Could we then measure wellbeing by the degree of happiness enjoyed by the people? The answer is no. Sen argues that living standards cannot be the same thing as happiness. People can be happy or unhappy irrespective of how they live or do not live. In India many people live in severe poverty with no access to the basic amenities of life, but they may still be happy because of the religious belief that in their next life they will be better off. Indeed, they believe that the more they suffer in this life, the better off they will be in their next life. These religious beliefs may help people to suffer happily but they do not improve their living conditions. Wellbeing is about capabilities and achievements.

Wellbeing is not happiness. It is about capabilities and achievements.

The level of happiness can still be a good indicator of people's wellbeing, but it is not the same thing. Happiness can only be measured by people's perceptions, which may change drastically in a short period. Thus, the level of happiness alone would not be a stable or suffcient indicator of wellbeing. It may change without any change in people's actual levels of living.

The income approach views poverty as deprivation of income (or consumption). Poverty is defined by a poverty line, i.e. the minimum income needed to be able to satisfy minimum basic needs. But income is not the only kind of deprivation people may suffer. Although income deprivation may give rise to several other kinds of deprivations, people may suffer acute deprivation in many aspects of life even if they possess adequate command over commodities. It is the low level of wellbeing which is important rather than low level of income.

Thus, poverty should be viewed as the deprivation of basic capabilities rather than merely as low level of income. Poverty encompasses not only material deprivation (measured by income or consumption) but also many other forms of deprivations in different aspects of life such as unemployment, ill health, lack of education, vulnerability, powerlessness, social exclusion and so on.

Under the capability deprivation approach, an individual may be defined as poor if he or she lacks basic capabilities. What are these basic capabilities? How do we identify them? This is an issue of value judgment. It depends on how a society prioritizes different capabilities. These priorities may also depend on a country's economic resources. There is no clear-cut formula for determining basic capabilities.

Can we describe poverty purely in terms of capability deprivation? Suppose that a millionaire, who has all the economic means to buy anything, has a disease or disability which prevents him from achieving some basic functionings. He or she is surely suffering from a serious capability deprivation in spite of having all the best medical facilities at his or her disposal. Yet, it would be odd to call this millionaire "poor".

Poverty is present when basic capability failure arises because a person has inadequate command over resources, whether through market or non-market sources. By examining capability deprivation alone, we cannot always identify persons who are poor in this specific sense. Accordingly, a distinction should be made between capability deprivation in general and poverty specifically. Poverty results from the inadequacy of command over resources needed to generate socially determined basic capabilities, whereas capability deprivation is more general and may be caused by a host of factors.

It would be odd to call a disabled millionaire "poor".

Among them, income or entitlement to resources may not be the most important. Thus, a person may suffer capability deprivation but still may not always be poor. Defining poverty from the capability perspective cannot be done independently of income. The capabilities to function, which are linked to poverty, are those derivable from income. Income or command over recourses cannot be separated from capability, but at the same it must be recognized that the link between them is far from simple.

Individuals have different needs and, therefore, differ with respect to their ability to convert incomes or resources they have into capabilities to function. Thus different individuals will require different resources to achieve basic capabilities. It is best that any proposed income measure of poverty be constructed from capabilities. The choice of a poverty line should reflect the cost of achieving basic human needs.

However, that is not the case with the most frequently used international poverty measure, the PPP $1/day per person. It was constructed by World Bank researchers in 1990 as the median of the lowest ten national poverty lines available in a sample of 33 countries. It has been shown that a person may not attain income-dependent basic capabilities even with an income sufficient to count as non-poor according to the $1/day yardstick. If the reduction of poverty, as properly understood, is to be achieved, then new measures of its extent and distribution in the world will be required.

■

Nanak Kakwani and Hyun H. Son: "New Global Poverty Counts", Working paper no. 29, UNDP International Poverty Centre, September 2006.

IN RESPONSE

Re: Poverty and Wellbeing

by Sabina Alkire, Oxford University

Kakwani's broad view of the possible elements of poverty seems exactly right.

But then he turns back to resource-based definitions of poverty and to income-based definitions of capability poverty.

Basic capabilities can often be expanded by public action regardless of causation.

There are numerous ways to measure capability deprivation.

They should be further developed rather than confining interest to income poverty lines alone.

Nanak Kakwani's careful and clear article acknowledges the conceptual inadequacies of aggregate economic growth and happiness as representations of wellbeing or poverty. It then argues that poverty should be viewed as the deprivation of basic capabilities rather than merely as low level of income. Moreover it states that the selection of basic capabilities is a value judgement and that there is no clear-cut formula for determining basic capabilities. It further states: "Poverty encompasses not only material deprivation (measured by income or consumption) but also many other forms of deprivations in different aspects of life such as unemployment, ill health, lack of education, vulnerability, powerlessness, social exclusion and so on." This broad view of the possible elements of poverty seems exactly right.

At the close the article takes two quite interesting turns, first back to resource-based definitions of poverty and second back to income-based definitions of capability poverty. Although I am not entirely sure I have interpreted these correctly, I would like to draw attention to these turns, and also to other possible avenues for exploration.

Having established that "poverty should be viewed as the deprivation of basic capabilities", Kakwani then appears to argue that this is the case only when poverty is *caused* by resource deprivation: "Poverty is present when basic capability failure arises because a person has inadequate command over resources, whether through market or non-market sources." He poses the case of a millionaire with an illness that prevents him or her from achieving a basic functioning. The millionaire is capability deprived – despite having splendid medical care – but should not, he argues, be called 'poor'.

The article closes with a discussion of the most frequently used poverty line – \$1 a day per person. Here the article takes a turn, arguing that despite the complexity of the relationship between capabilities and income, "defining poverty from the capability perspective cannot be done independently of income". An alternative reading of Kakwani's last argument is that capability poverty might be defined in other ways, but *in those situations in which income poverty lines are to be constructed,* the basis of their construction should be some kind(s) of capability deprivation.

The article contains three quite distinct lines of thought:
- Poverty should be viewed as the set of deprivations of basic capabilities.
- Poverty refers to the subset of basic capability deprivations that are caused by inadequate command over resources.
- Poverty refers to basic capability deprivation insofar as this can be represented by income poverty lines or in income space.

I would warmly endorse the first of these, but reframe the second and third, to argue a) that poverty should be defined normatively not according to its *cause* but according to whether it can be influenced by public action, and b) that multidimensional poverty comparisons should be developed to displace income poverty lines (although when the latter are used they should be pegged to basic capabilities).

Consider the ill millionaire, and compare her with a vivacious millionaire. Perhaps the 'basic functioning' that her illness prevents is the physical ability to be nourished; thus issues of energy and indeed survival reemerge constantly. Clearly this capability deprivation is caused by some condition other than resource deprivation. Should she be considered poor? The category of 'capability deprivation' allows Kakwani to describe the difference between our rail-thin millionaire and a plump and vivacious millionaire. In defining poverty as the subset of capability deprivations that are caused by inadequate resources, it seems that Kakwani wishes to define poverty not descriptively but *normatively* as capability deprivations that can (and should) be addressed by public action (by which we might mean not only action of the state sector but also of NGOs, business, and civil society). The problem with defining poverty according to its *cause* is not only that it is difficult to establish causality, but it may not be necessary: basic capabilities can often be expanded by public action regardless of causation.

When we use the term poverty as a moral or normative concept that serves as a trigger for action (rather than as a description, which one could also do), one might instead define poverty as the subset of basic capability deprivations that are "socially influenceable." In his article "Elements of a Theory of Human Rights," Sen argued that capabilities could be selected for special attention on the basis of two criteria. First, they were of *special importance* (that is, they were judged to be basic capabilities). Second, they were *socially influenceable*. For example, tranquility of mind or serenity of heart may be tremendously important to many – both the destitute and the wealthy – but it is not terribly amenable to change by concerted public action. This definition might achieve Kakwani's objective without requiring neither the establishment of causality, nor the definition of what counts as command over resources.

A third point concerns how to establish income poverty lines. Kakwani acknowledges the difficulties in using income to indicate basic capabilities because of people's very different personal conversion factors (as well as, we might observe, different institutional and market contexts), but argues that income poverty should be grounded on capability deprivation rather than on absolute income level such as $1/day. The only peculiarity with this argument is that it neither defends nor critically examines the focus on income space. Income poverty lines adjusted to reflect some basic functioning, such as nutritional status, or (and this is quite different) to reflect a resource, such as a caloric line, have a conceptual advantage over current PPP lines. But there are numerous ways to measure capability deprivation.

Foster and Sen describe four. The first is the 'direct' approach that employed indicators of functionings either alone, in a disaggregated way or aggregated into a multidimensional index such as the Human Poverty Index (HPI) or the Bourguignon-Chakravarty Index, which specifies a 'poverty line' for each of multiple dimensions of poverty. The second supplemented income measures informally with other measures, perhaps akin to contemporary poverty profiles. The third sets income poverty lines with respect to capabilities, for example through equivalence scales; the fourth examines partial orderings of ordinal intensity (for example DALYs and their successor indicators).

Research has broken open multidimensional poverty measurement and is actively developing multidimensional measures such as indices, poverty profiles, and stochastic dominance comparisons. Given their promise, measurement of capability poverty should involve and further develop these measures rather than confining interest to income poverty lines alone. ■

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Rejoinder *by Nanak Kakwani*

Sabina Alkire's gracious response even strengthens my argument that a distinction should be made between capability deprivation in general and poverty specifically. Poverty is concerned with the inadequacy of command over resources needed to generate socially determined basic capabilities, whereas capability deprivation is more general and may be caused by a host of factors. It seems that Alkire accepts our view that poverty is a subset of capability deprivations, which is generally not recognized. We define this subset as the one arising due to inadequate command over resources, whereas Alkire seems to agree with the one that can be influenced by public action. Any public action intended to reduce poverty basically provides (directly or indirectly) additional command over resources to those people who lack them. Thus, if we understand her position correctly, there is but little difference in our views.

There are two distinct problems in measuring poverty. The first is identifying the poor, and the second is aggregating poverty. My article is mainly concerned with the first issue, while for example the HPI is a response to the second. The identification problem is clearly prior to aggregation. It would be odd to identify a millionaire as poor even when suffering from a basic capability deprivation. Thus, defining poverty from the capability perspective cannot be done independently of income. In this context, the issue of establishing causality is not all that difficult. Moreover, in the formulation of public policies, we have to confront causal relationships even if they are difficult to establish.

A poverty line should not be a single number defined in income space. Since different individuals differ with respect to their ability to convert income or resources into capabilities to function, they require different resources to achieve basic capabilities. It means that different individuals will have different poverty lines to be able to enjoy the same basic capabilities. In our view the concept of poverty line is multidimensional because it takes into account people's individual differences in the enjoyment of a set of basic capabilities. Thus, the poverty lines properly constructed can reflect different interpersonal conversion rates as well institutional differences. Sabina Alkire's criticisms are mainly directed to a unitary income poverty line, which obviously is not our view. ■

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