PART 1

Policy Issues

2 An Elusive Consensus:
Definitions, measurement and analysis of poverty

Julian May

The analytical work funded by United Nations Development Programme (UNDP) under its Poverty Strategies Initiative (PSI) offers an insight into the views and methodologies of researchers and policy analysts from countries in which poverty is the dominant concern. Researchers have frequently had to adapt conventional approaches to suit the data available and the policy questions that are being addressed. By looking at how poverty is defined, which type of information is gathered and how it is analysed, we shall be in a position to gauge the contributions made by the PSI to applied poverty analysis in countries characterised by substantial capacity shortfalls. This may be especially helpful at a time when the governments of poor countries are responding to renewed international attention to the issue of poverty reduction.

This chapter, which reviews 24 studies sponsored by UNDP in 11 countries, shows that there is great variation in the manner in which poverty is being defined and measured in developing countries. We first examine some alternative conceptualisations of poverty used in the countries covered in the chapter. We then look at indicators and measures, contrasting the poverty line approach with composite indicators of social wellbeing and basic need satisfaction. Measurement instruments are discussed next, including the possibility of combining quantitative and qualitative methodologies of poverty analysis. A major concern throughout the paper is to highlight the innovations and adaptations made by researchers in these countries. Our contention is that from the perspective of national policy development, it is better to conceptualise poverty as being dynamic and related to the specific life situations of a country's population. Moreover, while the wide variation of measurement practices across countries may make international comparisons impossible, what matters most to individual countries is that the tools used to measure and analyse poverty correspond to their particular information needs and capacities.

Definitions and conceptualisation

In a special edition of the *World Development* journal, published in 1997, one of the world's leading experts on poverty, Michael Lipton, argues that there is an emerg-

ing consensus on the analysis of poverty and the ways in which it can be reduced (Lipton 1997). In terms of its definition and measurement, Lipton suggests that the principal components of this consensus are based on a growing recognition that:

- Poverty may adequately be defined as private consumption that falls below some absolute poverty line, which he terms 'absolute private consumption poverty' (PCP);
- PCP is best measured by calculating the proportion of the population who fall below a poverty line (the headcount) and the extent of this shortfall (the depth or severity of poverty). This poverty line is usually based on an estimated minimum dietary energy intake, or an amount required for purchasing a minimum consumption bundle;
- Low levels of capabilities (such as literacy and life expectancy) are major components of poverty, but are best measured separately rather than amalgamated with consumption measures;
- Lack of consumption is more readily measured than lack of income, due to the ability of poor households to smooth their consumption over time in the face of income fluctuations arising from seasonality or shocks.

Lipton recognises that important areas of contention remain, principally around issues of redistribution, population dynamics, government regulation and exclusionary forces. However, this chapter argues that the consensus mentioned by Lipton remains elusive, especially from the perspective of researchers and policy-makers in developing countries. Poverty definitions in these countries regularly incorporate notions of exclusion, powerlessness and stigma. Poverty is also frequently understood as being relational rather than absolute. The methodologies followed in the calculation of poverty lines vary enormously. Consumption data are rarely gathered; proxy indicators of income tend to be used instead. The headcount ratio is the most common measure of poverty, but estimates of its severity are seldom available. Finally, composite measures that combine income data with other measures of human capability are often computed. These measures normally expand well beyond the formula of the Human Development Index developed by UNDP.

We begin by looking at commonly accepted definitions of poverty used by international agencies, which provide a backdrop for examining the approaches adopted in the studies covered in this chapter. Moving from simpler to more complex and multidimensional concepts, we will look at the innovations introduced in these countries as they struggled to adapt conventional definitions to their own context. It is easy to see there is a great emphasis on a 'political economy' of poverty that is far more concerned with the social milieu within which deprivation and exclusion exist. Emphasis is also placed on the temporal nature of poverty and on the differences and linkages between chronic and transitory poverty.

A minimum acceptable standard

A classic definition of poverty sees it as 'the inability to attain a minimal standard of living' measured in terms of basic *consumption* needs or the *income* required for satisfying them (World Bank 1990). Poverty is thus characterised by the failure of individuals, households or entire communities to command sufficient resources to satisfy their basic needs. Consumption-based poverty lines are primarily concerned with *physical* measures of wellbeing. The inability to attain minimal standards of consumption to meet basic physiological criteria is often termed *absolute* poverty or deprivation. It is most directly expressed as not having enough to eat or as hunger or malnutrition.

Many of the studies reviewed here take this definition as their starting point. Even when the shortcomings of an absolute concept of poverty are acknowledged, this remains a basic building block for further analysis. As an example, the *Palestine Poverty Report* (PPR), prepared by the National Commission for Poverty Alleviation of the Palestinian National Authority, criticises the World Bank definition on many accounts. According to the report, this definition begs the question of how basic needs are defined and by whom, what is an 'accepted' minimal standard of living, and who determines what is acceptable. Nevertheless, while recognising that 'poverty is a multidimensional phenomenon consisting of material, mental, political, communal and other aspects', the authors state unambiguously that 'the material dimensions of poverty expressed in monetary values is too important an aspect of poverty to be neglected'. Given the fact that there is 'a lack of consensus regarding the measurement of other forms of deprivation', the approach followed in the PPR is ultimately grounded on the notion of some minimum threshold below which the poor are categorised (Palestine 1998).

Similarly, both the *Vulnerability and Poverty Assessment* (VPA) conducted in the Maldives and the *Mapping of Living Conditions* (MLC) in Lebanon tacitly accept the notion of a minimum acceptable standard of wellbeing. In Lebanon, deprivation refers to a situation in which certain social groups, households or individuals are below some threshold deemed necessary to meet a socially accepted standard of living (Lebanon 1998). The VPA recognises that poverty can be relative, but this issue is not explored in detail. Consequently, both poverty and vulnerability appear to occur when a set of minimum needs is not met, although the distinction between the two concepts is largely blurred (Maldives 1998).

Despite their acceptance of the idea of a minimum absolute standard of living, these and other studies sponsored by UNDP try to go beyond this conceptualisation, which they regard as deficient. In order to do this, they have supplemented their analysis of poverty by adopting a wide variety of approaches, focussing, for instance, on the ability of a household to satisfy their basic needs or to withstand various forms of hardship, such as ill health or social and physical isolation. The understanding of

poverty has been enriched by this search for additional meaning, even though a consensus on an alternative conceptualisation of the phenomenon is still to emerge.

Relational notions of poverty

Poverty is best understood as having both an absolute and a relative dimension. In the absolute sense, the poor are materially deprived to the extent that their survival is at stake. In relative terms, they are also deprived in relation to other social groups whose situation is less constraining. The latter notion of poverty has been explored in a number of studies, and appears to convey more accurately the manner in which poor people experience their own predicament.

Participatory research methodologies provide a rich source of information for understanding the dual nature of poverty. In Uganda, where people's own perceptions were surveyed as part of the Uganda Participatory Poverty Assessment Project (UPPAP), poverty was defined in both material and non-material terms, and viewed as a 'complex, multidimensional, cyclical, seasonal and context-specific problem'. Not only did respondents place a great emphasis on stigma, exclusion and a lack of social networks as defining features of poverty, but they also stressed the importance of their natural environment, gender relations, and cultural norms

Box 1. Experiencing poverty: Voices from Uganda

According to the participatory assessments carried out in the Kampala, Kapchorwa and Kumi districts of Uganda, poverty is perceived differently at different levels of experience. At the individual level, poverty is said to involve:
- Lack of or insecure incomes;
- Lack of or poor quality basic necessities like food, clothing, etc.;
- Lack of household assets;
- Lack of productive assets, such as utensils or land;
- Inability to maintain good health and wellbeing;
- Dependency and helplessness;
- Anti-social behaviour.

In addition to some of the above features, poverty at the household level is perceived as comprising:
- Inability to provide for the children and the family;
- Lack of support networks;
- Excessive dependence on outsiders.

Finally, at the community level, poverty also comprised:
- Lack of infrastructure and remoteness;
- Instability and disunity.

and practices as central to their livelihoods (Uganda 1999a).

Findings from participatory assessments also reveal that poverty is a layered and relational phenomenon. Differences can be discerned in the manner in which people experience poverty, depending on whether one is concerned with individuals, households or communities. At the individual level, it is perceived primarily as a lack of basic necessities and power. At the household level, perceptions tend to differ according to gender. Men generally define poverty as a lack of assets, while women see it in terms of consumption and the ability to provide for the family. In turn, what is emphasised at the community level is the lack of services, assets and social cohesion as constitutive elements of poverty (Uganda 1999b).

In a qualitative assessment sponsored by UNDP in Latvia, poverty is again treated as a relative rather an absolute notion. People's judgements concerning their present situation are formed by comparing themselves with those around them or with their own situation in the past. Many appear to take comfort in the fact that everyone, not only themselves, has become poorer in recent years, and that they are not as bad as they could be. There is, nonetheless, a lingering fear that conditions could continue to deteriorate to a point at which they would be as worse off as those with whom they compare themselves (Trapenciere et al. 2000).

These perceptions differ significantly from the attitude that prevailed under socialism, when poverty was largely attributed to individual failure. They reflect the shared experience of widespread and sudden impoverishment of a large swath of the population following the demise of the Soviet Union. In forming these perceptions, Latvians tend to rely on stereotypes of others considered to be poor. Those who live in the countryside feel that urban residents are worse off, as they cannot grow their own food. Urban residents view rural areas as desolate, isolated and subject to unemployment and alcoholism. Pensioners consider large families and unemployed people as worse off, while parents with many children feel that pensioners living alone are the poorest of the poor.

A similar depiction of poverty as relational and context-specific is present in other studies. The *Palestine Poverty Report*, for instance, devotes great attention to the relationship between the poor and the non-poor, between poverty and wealth, as well as between the powerless and the powerful. The potential for conflict over resources and rights is thus given a far greater prominence than is the case with the minimum standards approach discussed earlier (Palestine 1998).

Despite the importance attached to relational notions of poverty, none of the studies reviewed here suggests new directions for measuring it. Nonetheless, the stress placed on this conceptualisation, along with its relevance to unequal societies or those in conflict, conveys that the social and political dynamics underpinning the relationship between the poor and the non-poor is a more significant aspect for policy-makers and researchers than the conventional approaches to poverty analysis would sug-

gest. The development of appropriate indicators to capture the relational nature of poverty thus seems an important challenge for the international community.

Social exclusion, dependence and isolation

The concept of 'social exclusion' builds on relational notions of poverty and has a long tradition of research in industrialised countries. Exclusion is seen to incorporate the lack of social ties to the family, community and, more generally, to the society to which an individual belongs (Bhalla and Lapeyre 1997). The concept has both economic and social dimensions. Being excluded implies that someone's opportunities to earn an income, participate in the labour market or have access to assets are substantially curtailed. People can also be excluded from public services, community and family support, and even participation in shaping the decisions that affect their own lives. Social exclusion denotes not only the weakening of social ties that bind individuals to their families and communities, but also exclusion from some of the most basic rights of citizenship (Barry 1998).

The Ugandan participatory studies illustrate the usefulness of this conceptualisation by highlighting the importance people attach to social networks for their own understanding of poverty. The absence of social support, for instance, is seen as a determining factor of downward mobility. The central importance of social isolation as indicating or contributing to poverty is also stressed in the *Urban Poverty Assessment* conducted in Lesotho (Lesotho 1997). In the Gambia, people stated that constant vulnerability leads to feelings of helplessness, dependence on others and a loss of dignity. The poor were said to be unable to do anything by themselves without the consent of third parties on whom they rely for assistance in implementing decisions. Often this dependence extends even to such private matters as decisions concerning marriage, naming, initiations and other crucial events in a family's life cycle. The poor are equally unable to decide on social and civic matters, and invariably respond to community patronage (Kayateh 1997b).

Increasing isolation may just as often contribute to poverty as result from it. As a result of the deep economic crisis engulfing their country, many Latvians have been forced to reduce their socialising, as they can neither afford the customary gifts to take on visits to friends and relatives nor can they afford to entertain guests at home. As people curtail their socialising, their networks of support tend to become confined to the household and the immediate family. Cut off from vital sources of information and support, people's worlds become more insular. This often results in severe depression and loneliness (Trapenciere et al. 2000). Conversely, social status and connections occupy a central place in people's perceptions of what being better off implies. Holding a job which gives influence outside the workplace, having the ability to obtain services or rationed items, and knowing people who could provide assistance in times of need were specifically mentioned as defining the characteris-

tics of someone who is better off (Gassman and de Neubourg 1999).

These themes are repeated in a number of other studies. In Mozambique, where war and resulting displacement of people have had a negative impact on social values, the most vulnerable groups are identified as being physically and mentally isolated from their communities and families (Thompson 1998). In both the Gambia and Lebanon, weak political participation is explicitly singled out as a key dimension of poverty. This is echoed in Grenada, where the poor complained about being ignored by politicians. There is an important gender component to exclusion that was mentioned in Grenada. Men's inability to provide for their families is seen as undermining their manhood, which leaves them with an intense feeling of insecurity, shame and frustration (Kairi 1998). Ethnicity also seems to be another major source of discrimination and social exclusion, although only one country in our sample deals directly with it (Aasland 2000).

The concept of social exclusion offers one way in which an analysis of the relational aspects of poverty can be incorporated in a rigorous manner. The concepts and methods of measuring the phenomenon are, however, still rudimentary. If appropriate analytical and measurement tools are developed, this type of analysis may provide a fruitful platform for further investigation.

Capabilities and poverty

Poverty is not a static condition. While some individuals or households are permanently poor, many others constantly move into and out of poverty. In development literature, the concept of 'vulnerability' makes reference to the negative outcomes of processes of change. The factors underpinning the dynamics of poverty may be economic, social, environmental or political, and may take the form of long-term trends as well as short-term shocks and cyclical processes determined, for example, by seasonal changes (Glewwe and Hall 1998; Grooteart and Kanbur 1995; Rakodi 1995).

In order to understand the dynamics of poverty, one can draw on the notions of 'capabilities' and 'entitlements' that have received a good deal of attention since they were introduced by the economist and Nobel Prize laureate Amartya Sen. Sen's work belies the idea that income shortfalls are the main attribute of poverty. He emphasises the importance of the bundle of assets or endowments held by the poor, as well as the nature of the claims attached to them, as critical for analysing poverty and vulnerability. Unemployment, missing markets, and production and price shocks may conspire to increase the vulnerability of particular individuals, depending on their asset bundle and their capacity to mobilise the resources at their disposal to withstand crises and shocks. A livelihood system may fail to provide access to an adequate bundle of commodities, creating what Sen has called 'entitlement failure' (Sen 1981).

Box 2. The Human Poverty Index (HPI)

If human development is about enlarging choices, poverty means that opportunities and choices most basic to human development are denied. For policy-makers, the poverty of choices and opportunities is often more relevant than the poverty of income, for it focuses on the causes of poverty and leads directly to strategies of empowerment and other actions to enhance opportunities for everyone. Recognising the poverty of choices and opportunities implies that poverty must be addressed in all its dimensions, not income alone.

For this reason, the *Human Development Report 1997* introduced a Human Poverty Index (HPI) in an attempt to bring together different features of deprivation in the quality of life to arrive at an aggregate judgement on the extent of poverty in a community. Rather than measure poverty by income alone, the HPI uses indicators of the most basic dimensions of deprivation: a short life, lack of basic education and lack of access to public and private resources.

The first deprivation relates to survival: the vulnerability to death at a relatively early age, as represented by the percentage of people expected to die before age 40. The second dimension relates to knowledge: being excluded from the world of reading and communication, measured by the percentage of adults who are illiterate. The third aspect relates to a decent standard of living, in particular, overall economic provisioning. This is represented by a composite of three variables: the percentage of people with access to health services and to safe water, and the percentage of malnourished children under five.

The Human Poverty Index can be used as an advocacy, a planning and a research tool. It can provide a measure of the incidence of human poverty in a country or region, reflecting the proportion of the population that is affected by the various forms of deficiency included in the measure. It can also serve a useful function as a planning tool for identifying areas of concentrated poverty within a country. It may be used, for instance, to rank districts as a guide to identifying those most severely disadvantaged in terms of human development. Although ranking by only one index would be possible, the HPI makes possible a ranking in relation to a combination of basic deprivations, not one alone. In this way, the HPI can provide a composite measure of development, in the same manner as the Human Development Index does.

An interesting insight into the nature of poverty as an entitlement failure is provided in the Lesotho study on urban poverty (Lesotho 1997). The study argues that urban dwellers face a number of specific problems that puts them in a particularly vulnerable position. These include:

- Dependence on money and commercial exchange for sustenance;
- High living costs in urban areas;
- Vulnerability to market forces;
- Erosion of support mechanisms and atomisation;
- Crime and insecurity, which affect the poor in disproportionate numbers.

Similar themes are discussed in the *Poverty Assessment Report* conducted in

Grenada, where poor respondents see the absence of marketable skills as a reason for their plight (Kairi 1998).

The qualitative information gathered in the Ugandan participatory studies sheds light on the temporal nature of poverty. People are shown to move in and out of poverty as well as between different levels of poverty. Timelines where events such as cattle raiding and the insurgencies and civil strife that characterised Uganda during the 1970s reveal the dynamic processes leading whole communities down the path to poverty. This is also well illustrated in the participatory assessment carried out in the Ugandan district of Kapchorwa, in which ill health or the loss of a family breadwinner is shown to enhance the vulnerability of every member of a household. These dynamics also extend across generations, in cases in which parents pass on limited assets, or indeed accumulated debt, to their children on their deaths (Uganda 1999b).

Participatory research also provides insights into the seasonality of poverty. Findings from Uganda show that disease becomes most prevalent at certain times of the year (between April and August), a period that coincides with the rainy season and is characterised by increased exposure to natural hazards. Food shortages, on the other hand, are more likely from March to July (Uganda 1999c). In the Gambia, too, poverty is most severe from March to May, after the harvest and trade season, and again from July to September, when food is short. This period corresponds to the time when people are intensively involved in planting and have no money to spare. Some 60 to 70 per cent of Gambian villagers are estimated to be poor around March, and the proportion climbs even further to as many as 90 per cent by September every year (Kayateh 1997b).

The time dimension of poverty is supported by findings from Lebanon's *Mapping of Living Conditions*, which used census and survey information rather than ethnographic data to examine the extent of deprivation in the country (Lebanon 1998). The report argues that protracted war and economic turmoil, including rampant inflation, have had such disruptive effects on people's lives as to imperil their capacity to generate sufficient incomes for a decent livelihood. This may explain the high levels of income poverty observed in Lebanon compared with other indicators of basic needs or unfulfilled capability, which appear to be less susceptible to political and economic influences, at least over the short term. It is probable, however, that both sets of indicators would tend to converge over the long run if negative conditions persist for a sufficient period of time. This is illustrated, for instance, by the worsening trend in educational indicators observed in Ethiopia (Ethiopia 1998).

The Maldives VPA (1998) uses self-reported change in household income to collect quantitative information on the dynamics of poverty by asking one household member (usually the person identified as head) to indicate whether their income has risen or dropped over a given time period. But this approach seems questionable, as the perceptions of the respondent might not reflect the views of

other members of the household, which could result in confusion between household and per capita income.

The notions of assets and capabilities enrich the understanding of poverty as a relational phenomenon. Here the relationship is not only between different social actors, but also between the poor and the institutions with which they must engage in order to survive. Poverty in this framework is not simply about falling below some income threshold, but also about not having the abilities and assets from which poor people can derive a livelihood in the future.

Measuring poverty

The country surveys and assessments reviewed for this chapter experiment with a number of approaches to measuring poverty and vulnerability. In many cases, the analyses adopt an eclectic approach that combines different methods and indicators, often without assessing the respective advantages and shortcomings of each. As with the conceptualisation of poverty, the multiplicity of measurement tools that have been employed belies the idea of a shared consensus amongst experts on how poverty ought to be measured.

Money metric measures

Conventionally, the money metric approach to measurement requires setting a poverty line of some type. Poverty lines are used to separate the 'poor' from the 'non-poor'. They are based on some threshold expenditure deemed necessary to buy a minimum or socially acceptable standard of nutrition and other necessities (World Bank 1993). This expenditure varies between countries and is affected by local tastes and cultural norms. For this reason, country-specific poverty lines are normally used.

Critics of money metric measures argue that money provides only an indirect means for translating inputs into human development outcomes. Hence, measures that are focussed explicitly on outcomes should be used instead. While this is partly true, it is also the case that some of the direct means to wellbeing, such as food, clothing and shelter, are purchased with money. Besides, money metric measures are often preferred because they are useful for poverty comparisons (Ravallion 1993). By contrast, other methods and indicators, including the Human Development Index (HDI) developed by UNDP, are not as well suited to comparisons between individuals or households. Analyses that require quantification thus typically rely on a money metric approach, which explains why the latter has remained a useful, albeit imperfect, tool for poverty analysis.

The VPA (1998) prepared in the Maldives follows the conventional money metric approach to measurement using household consumption as a proxy for household income. The choice of consumption over income as the welfare indicator avoids problems of over-declared income from self-employment (where turnover is

reported instead of profit), seasonal variation and under-reporting of income. Information is collected on a long list of consumer items and reported at the household level. This approach, which has been followed in many of the country studies sponsored by UNDP, implies the questionable assumption that households distribute their welfare equally between all members. In most cases, analysts recognise that this assumption is problematic and probably would be proven wrong if a detailed examination of intra-household distribution was carried out. But this is seldom possible, given the information required for such analysis and the limited research and data-gathering capacity in most of the countries reviewed.

In discussing how to set a poverty line, many studies recognised that local prices may vary by region. To overcome this problem, a regional purchasing power parities (PPP) approach was investigated for the Maldives. In the end, however, the approach was found to be impractical because many of the items in the typical consumption basket are not available in all parts of the country and, when they are, the quantity and quality of many of the items consumed vary widely from one island or atoll to the next. This lack of homogeneity precludes comparison on a countrywide basis. Only three items met the necessary criteria for calculating regional PPPs, but all three were imported from abroad with prices determined by the government (Maldives 1998).

Imputations for own production are another important methodological consideration for constructing a poverty line. Typically the local prices of purchased substitutes are used for this purpose. It is also necessary to impute the value of housing, especially where some communities obtain shelter through a housing market while others use natural resources to build their homes. However, in the absence of a developed housing market in most countries, especially in the areas where the poor reside (untitled land, squatter settlements, etc.), imputing the value of housing is virtually impossible (Deaton 1997). An innovative solution to this problem was found in the Maldives. Instead of imputing the cost of housing for non-urban households, rent payments were deducted from the expenditure of urban households in order to make them comparable with those areas in which no housing market exists. In the same vein, tax and insurance payments were excluded from the calculation of household expenditures in the household budget survey undertaken in Grenada, in view of the problems associated with the collection of such data (Kairi 1998).

Many countries set an upper and a lower poverty line in order to distinguish between the poor and the 'ultra-poor'. This approach was followed in both Lesotho and Palestine. In the case of the *Palestine Poverty Report* (1998), both lines were based on a basic basket of necessary goods, which were determined according to the value of spending on the basket relative to a certain percentile of the population. The first line (the 'deep' poverty line) was calculated to reflect a budget for food, clothing and housing. It was initially developed for a reference household com-

prising two adults and four children, which according to the data, represents the most typical Palestinian household. Actual spending patterns revealed by the household survey were used to determine the location of the poverty line, which was then adjusted to reflect the different conditions and consumption needs of households with a different composition. Adjusting for household size and composition was deemed necessary in order to account for the impact of scale economies in consumption. It was also intended to reflect more accurately the relative needs of children, which are argued to be more sensitive to the items included in the 'deep' poverty basket. The upper threshold was determined by adding necessities like health and personal care, education, transportation and housekeeping materials. Thus, while the first line is based on the consumption of items needed for survival, the second one includes consumption items that are thought to be required for a minimally adequate standard of living (Palestine 1998).

Two poverty thresholds were used in Grenada as well. An 'indigence line' was first constructed, using a basic consumption basket consisting of low-cost food items that are consistent with the dietary habits of the country's population. The prices of the items in the selected food basket were calculated using the consumer price index (CPI) of Grenada's Statistical Department. The market cost of the food basket per adult was then multiplied by the household adult equivalent value in order to set the indigence line. The upper poverty threshold was calculated by adding a non-food cost component to the lower line. Non-food expenditures include spending on clothing, medical expenses, transportation, rent and utilities, recreation and consumer durables. They were derived from calculating the food to non-food ratio of the two poorest quintiles of the income distribution scale. Finally, this figure was divided by the number of adult equivalents in the household and added to the threshold represented by the indigence line (Kairi 1998).

In some countries where income or expenditure data were not available, other variables believed to be associated with income were used instead. For instance, the MLC in Lebanon used the number of cars owned by a household and the number of working household members as proxies for income. A scoring system was developed to account for the occupations of each working member in the household.[1] Two other variables, ownership of property and school enrolment, were considered, but then excluded. It was felt that the first one only applied to a limited segment of the population, while the second was not representative due to the peculiar nature of the education system in Lebanon.

Deciding on a poverty threshold is only one step in poverty measurement. The next step involves the selection of the measures that are judged to convey most accurately the scale of the problem. Absolute measures have been used in most countries, whether as a money metric consumption line or some threshold level of services below which deprivation is believed to occur. The most frequently used

measure is the headcount ratio, which reflects the proportion of people below the line in relation to the total population in a country. Only a few studies seem to be aware of the many problems associated with the headcount index, the most prominent of which derives from its failure to account for the extent of deprivation of those who are below the line.

Recognising the largely arbitrary nature of poverty measures based upon some specified poverty line, the Maldives VPA (1998) resorts to the notion of poverty dominance developed by Atkinson (1987), Foster and Shorrock (1988), and Jenkins and Lambert (1997). This analytical framework assesses whether the results of differing poverty lines are robust in the sense that the poor are consistently identified and ranked irrespective of the poverty line used.[2] In the case of Maldives, the poverty dominance approach is not applied exclusively to a money metric consumption line. Instead, the methodology is extended to include a composite index of poverty and vulnerability that was developed especially to suit the peculiar conditions of this environmentally fragile archipelago, as well as each of the twelve indicators that make up the index. The report further recognises the limitations of a simple headcount measure, and thus also provides estimates of the poverty gap index (PGI), which reflects the depth as well as the incidence of poverty.[3] Using this approach, the VPA is able to identify the poorest islands and atolls in the country and rank them according to various measures of wellbeing.

Likewise, the PPR carried out in Palestine (1999) also recognises implicitly the limitations of the headcount index, which it supplements with other measures to account both for the incidence, depth and severity of poverty. A number of interesting adaptations have been made in other counties as well. This was done, for instance, in Mozambique by decomposing the headcount ratio in much the same manner that is often done with the Gini coefficient. As a result of this decomposition, estimates of the proportion of women, children and elderly people living in poor homes are reported (Mozambique 1997).

Unfortunately, with the exception of Grenada, few countries have tried to measure inequality. This seems an important omission, especially given the fact that most studies devote great attention to the relational context of poverty. Latvia is one of the countries that explored an alternative approach to measurement. This was partly dictated by the fact that Latvia has no official poverty line. Three different lines were thus proposed in an attempt to solve this problem:

- A relative line set at 50 per cent of mean total monthly expenditure per capita, which is the lowest threshold and can been seen as an ultra-poverty line;
- A line set at the level of the official minimum wage of 1996, which is used as the threshold below which people are considered very poor;
- A line set at the crisis subsistence minimum as calculated by the Ministry of Welfare, which is the highest threshold (Gassman 1998).

The higher lines represent a form of rights-based measurement of poverty. They are based on official standards for social assistance or intervention. This certainly appears to be an area in which international research could assist in finding measures that can be readily applied to the context of data scarcity that prevails in most developing countries.

Measuring human capability

The earlier discussion suggests that poverty analysis should go beyond money metric measures of income or consumption. Dissatisfaction with money metric methods emanates from many sources. Firstly, people are normally reluctant to divulge information concerning their spending or income patterns. Of greater concern is the fact that many aspects of wellbeing are not acquired through market transactions, especially in developing countries. This applies, for instance, to a range of needs obtained from common property resources as well as to gifts and charity, which are an important ingredient in people's survival. Consequently, deprivation in these aspects may not be adequately accounted for. Finally, consumption-based measures reflect inputs to wellbeing rather than outcomes and therefore do not necessarily reveal an improvement or a deterioration in quality of life or capabilities (Lipton and Ravallion 1997).

This has led to a search for alternative forms of measurement in many countries. Emphasis is placed on measuring development outcomes directly by focussing on unfulfilled needs or capability shortfalls.[4] Many countries provide estimates of health status and educational achievement, both of which have a fundamental bearing on people's ability to lead a meaningful and productive life. Frequently used health indicators include the ratio of health facilities, hospital beds and health care workers to population, the infant mortality rate, and public expenditure on health as a proportion of GDP. Measures of educational status that are regularly reported include the number and type of school facilities, class size (number of students per classroom), student to teacher ratios, repetition and drop-out rates, and public expenditure on education as a share of GDP.

The *Human Development Report* prepared in Ethiopia reports on the high incidence of malaria and acute respiratory infections (tuberculosis, bronchopneumonia), and sends a warning to policy-makers by calling attention to the rising AIDS prevalence in the country (Ethiopia 1998). Access to health insurance schemes was reported in Lebanon and other countries, which also examined the coverage of publicly provided safety nets, especially in the area of health. Estimates of infant mortality rates (IMR), an important component for the calculation of life expectancy, are fraught with problems in many developing countries. This arises from the lack of reliability of their Vital Registration Systems, which tend to under-report the number of births and deaths of infants.

Box 3. Measuring development outcomes

Dissatisfied with the limitations of money metric methods of poverty measurement, many countries have sought to develop indicators for gauging deprivation and disparities in development outcomes directly. On the basis of the 1998 Mapping of Living Conditions conducted in Lebanon, the methodology can be said to involve the following steps:

- Specification of the social outcomes where a lack of satisfaction is considered to be an indicator of deprivation;
- Choice of indicators for measuring the extent of deprivation or satisfaction;
- Definition of a threshold or benchmark against which the indicator can be compared to determine the presence and extent of deprivation;*
- Specification of a measurement scale for each indicator in order to assign a score of relative deprivation to each unit of analysis (household, region, cluster);
- Construction of an index for measuring deprivation of the composite group of social indicators;
- Definition of a classification that divides the unit of analysis into categories according to the overall index score;
- Examination of the distribution of the index across geographic location and social group.

* The thresholds determined for social indicators may be more directly affected by social traditions, cultural norms and habits than is the case for money metric measures.

To overcome this problem, the Maldives VPA (1998) provided an alternative estimate of the country's IMR, collecting the information directly from respondents. The discrepancies between the official figures and the VPA (1998) results became a matter of concern for the health authorities, who realised the need to improve their data-gathering methods in order to obtain more accurate information for policy-making. This suggests that a direct method of estimating the IMR could be an acceptable option in other countries as well.

Another important innovation introduced in the Maldives is a system of weighted penalty points to account for the level of access of the population to various services, facilities and infrastructure, as well as their quality. A ranking was first established to reflect how adequate access to various services was. This was then weighted for each atoll by the proportion of households who report that they fall into this category of deprivation.[5] The indicators were then combined into composite indices for each of the twelve main human development dimensions that comprise the Human Vulnerability Index (HVI), the report's main innovation, which will be discussed later.

Only a few studies attempted to measure food security or nutritional status, although many provide data from secondary sources. The Maldives VPA used a self-declared approach to assess food insecurity, asking respondents whether they had experienced a food crisis in the previous year and, if they had, the duration of the

crisis. Nutritional status was assessed directly through the use of conventional anthropometric measures of children between the ages of one and five.[6] Technical and vocational training was also rarely mentioned in most studies, despite its importance for development. The Ethiopia HDR discusses the problems of the teacher training system and examines the availability of training facilities and the qualifications of the teaching staff. In Lebanon, the ratio of students enrolled in vocation training compared to total enrolment is seen as indicating important shortcomings in the national education system. In both countries, there is a strong correlation between school enrolment and household earnings, as is the case in other countries.

Access to housing, credit and consumer durables is discussed in a handful of countries. The inclusion of credit is justified in light of the findings of numerous studies that have confirmed the relevance of micro-credit for small non-farm and farm enterprises. Lebanon's MLC uses the respective shares of total credit obtained by the largest and smallest borrowers as an indicator of the limited access of the poor to formal credit markets. Access to consumer durables is deemed to reflect overall levels of wellbeing in the Maldives, especially when the goods in question reduce drudgery or offer productive opportunities for their owners. Finally, access to housing is extremely valuable for many reasons. Apart from providing shelter and protection against the elements to its occupants, a house performs an important productive function for many low-income families, who typically engage in home-based income-generating activities. A house, furthermore, is an asset that can be mobilised in times of need, thereby providing a cushion against vulnerability. Conventional measures of access to housing are based on the amount of living space per person, but may also include access to outside private space such as a 'compound' (Maldives) or a terrace (Lebanon).

The participatory assessments conducted in Uganda highlight the importance of material as well as non-material factors in people's own perceptions of their situation. People value not only the material possession of physical assets, but also such intangibles as trust, solidarity and respect. It is therefore not surprising that the presence of stigma and the erosion of social support networks are seen as prime indicators of distress (Uganda 1999b). Another non-material dimension of wellbeing is recreation, which the Maldives VPA (1998) incorporates into the analysis on the grounds that the lack of recreation space is linked to overcrowding and limited privacy, factors that may inhibit the development of children and contribute to social problems. It is useful to note that these issues occupy a central place in the current formulations on the role of social capital in development.

Composite measures of poverty and vulnerability

Social indicators such as those discussed above may be combined to form a composite indicator of wellbeing. Many of these composite indicators are based on the Human Development Index (HDI) introduced by UNDP (1990). The HDI meas-

ures three basic dimensions of wellbeing: longevity, education attainment and standard of living. Conventionally, these are measured by life expectancy at birth, the weighted average of adult literacy (0.66) and gross enrolment ratios (0.33) and the Purchasing Power Parity of income equivalent in US dollars.

In most countries, the data for the construction of national HDIs are readily available. Sufficient information often also exists for estimating regional or state level HDIs.[7] Despite various criticisms of composite indices, they provide nonetheless a tool for setting priority goals for policy. In Ethiopia, a desired HDI has been projected as a benchmark for deriving the policy outcomes for health and education that would be required to achieve the projected level of development (Ethiopia 1998). In Nepal, district level HDIs are used as a basis for ranking all the districts of the country according to need. These rankings are then used as a means of targeting interventions and prioritising investments in the poorest localities (Nepal 1998).

It is commonly acknowledged, however, that broad composite indices such as the HDI or similar measures may be too general for a detailed analysis of policy issues in a country or region. For this reason, the Maldives developed a Human Vulnerability Index (HVI) to capture the country's peculiarities and inform policy makers accordingly. The HVI is a composite index consisting of twelve discrete components, some of which have more than one measurable indicator, which yields a total of 40 indicators of deprivation. These components are further grouped into various categories that relate to physical and social infrastructure, housing and the environment[8] (Maldives 1998).

In Lebanon, a Living Conditions Index was developed explicitly as a measure of unsatisfied material basic needs (Lebanon 1998). The index has four components that, in many ways, are similar to the vulnerability index of the Maldives. The four components are:

- Housing indicators, which include the principal means of heating the homestead;
- Water and sewerage indicators;
- Education indicators;
- Income indicators, including a number of proxy measures such as ownership of cars.

The household level information collected in Lebanon was processed in such a manner as to obtain both the mean scores and the standard deviations for each of the four components of the Living Conditions Index. This is very useful because it makes it possible to assess the distribution of satisfaction for every living standard dimension. Analysis of the data shows, for instance, that education has the highest degree of dispersion in Lebanon. This is linked to the escalating costs of education as a result of the diminishing role of public provision. Another possible enhancement to the basic need measures, which was applied in the Maldives, is to

calculate the depth of deprivation for specific dimensions as the difference between the specified threshold level and the score obtained by individual households.

Household size is a central issue in basic need measurement and poverty analysis. Larger households in Lebanon tend to be concentrated in the lower categories of the Living Conditions Index. This finding is similar to results obtained using money metric measures, despite common reservations among specialists concerning the use of households as the main unit of analysis in poverty studies. At the same time, small households comprised of elderly people living alone also scored low in the Living Conditions Index. The occupational category of the head of household is another defining feature. A higher proportion of household heads engaged in agriculture, domestic service and unskilled labour are in the households with the lowest scores (Lebanon 1998).

The notion of household headship as collected in most surveys has been under question for some time (Hedman 1996; Rosenhouse 1989). Typically, the head is defined as the person regarded as such by members of the family. In reality, however, it is quite possible that this person may not be the principal decision-maker in the family. Traditions, customs and family relationships often play an important role in determining who is nominated. This may conceal many cases in which women exercise the role of main providers and heads, even if they are not regarded as such.

It is not easy to overcome this problem with standard survey techniques, but the one conducted in Maldives for the VPA (1998) deliberately tried to explore the issue of female-headed households by probing for the reasons why women were nominated as heads. Furthermore, marriage and divorce have a prominent place under Sharia law, which permits polygamy, but may stigmatise women who are divorced. For this reason, the VPA places a greater emphasis on conjugality than might be the case where the legal marital status of women is less important. Nevertheless, a similar situation may arise in other societies as well, in which men continue to influence the ability of women to work, acquire land or control their own fertility.

In order to investigate whether there are any differences in perceived needs according to gender, the Maldives VPA ranked priority needs separately for women and men along five dimensions. These are: (1) education and literacy; (2) marriage and divorce; (3) health and nutrition; (4) employment; and (5) women's priorities. Interestingly, there were only marginal differences in the ranking of needs, indicating that female respondents did not differ much in their views from their male counterparts.

The previous points underscore the significance of taking into account social and cultural factors when assessing wellbeing and deprivation. This was done in Lesotho, where an effort was made to gather information on non-material needs.

Respondents were asked about their perceptions of the strength of community and family ties, and their level of understanding of the local political context. The first was taken as an indication of social isolation, while the second one was intended to reflect political isolation and powerlessness. Interestingly, although most respondents were knowledgeable about their basic rights and legal services available to them, they knew little about the responsibilities of the government or the public services from which they could benefit. Political isolation was indeed related to wealth disparities, as demonstrated by the fact that those earning an above average income were much more aware of the government system than the poor and ultra-poor (Lesotho 1997).

Composite indicators result from the combination of various discrete components. An important methodological problem, therefore, arises from the need to apply a weighting system to the individual components when combining them to form the index. Conventionally, equal weighting has been used, as in the case of the HDI (UNDP 1990). Alternatively, arbitrary values can be assigned to each component, so as to reflect their relative relevance based on some underlying theory. In Lebanon's MLC (1998), indicators are first converted to a standardised score. Then, the scores of the various indicators are aggregated in order to obtain the arithmetic mean value for each of the four components of the Living Conditions Index. Finally, the index is derived from its four components, as the arithmetic mean of their respective scores. This means that although a household may have extremely unsatisfactory access to one or more component of the index (e.g. water or sanitation), it may still obtain a high aggregate score if it ranks highly in the other components (e.g. income or education).[9]

An interesting alternative was followed in the Maldives VPA (1998), which used the perceived priorities of respondents as the weighting factor for the construction of the Human Vulnerability Index. The weighting process was used to rank the relative importance of the different components of the index. This process was carried out in a gender-disaggregated manner, showing the priority rankings of men and women separately and then combining both on the basis of the proportion of the total population made up by each sex. Thus, the rankings are not only reported separately for men and women, but also as a combined score (Maldives 1998).

Employment, unemployment and underemployment

Productive employment, or lack of it, is a crucial determinant of vulnerability and poverty. Countries normally track the evolution of various indicators, of which the most common are labour force participation rates, unemployment rates, women's share of the labour force, and sectoral breakdowns of employment.

The VPA (1998) estimates labour force participation as a percentage of all persons above 12 years of age, compared to the standard of 15 to 64 years of age used

in conventional definitions of the labour force (e.g. in the 1998 Ethiopia HDR). The VPA also draws attention to the fact that many poor people have more than one job and often 'commute' between different sectors. The main activity of those who are employed is therefore used as the basis for estimating sectoral shares. The type of employment can also be used as an indicator of deprivation, if certain activities are deemed to be associated with hardship. In essence, this implies a segmented labour market approach in which some occupations are deemed to be less well paid, secure or skilled than others. This approach was followed in Lebanon (1998).

It is worth mentioning that, in order to arrive at estimates of unemployment, the VPA survey adopted a different methodology from the one used for the national census. The conventional definition of unemployment specifies a time period during which respondents must have looked for a job before being categorised as unemployed. Where labour markets are not well organised, however, this definition is bound not to reflect adequately the size of the unemployment problem or its characteristics. Lebanon's MLC, for instance, reports that many job-seekers give up an active search for employment in despair of finding work. For this reason, many of the studies reviewed here were reluctant to follow conventional usage, and searched instead for alternative ways of measuring unemployment.

The situation in the Maldives provides a poignant example of the inadequacy of the standard definition, due to the significant costs of job search from isolated areas. Thus, the survey dropped the reference period, and instead probed for the reasons why a person did not work. People were classified as unemployed if they indicated that they were not working at present or would be available for work if they could get a job, but were unable to find a suitable one (Maldives 1998). Definitions of unemployment have also been refined to indicate long-term unemployment (more than one year) as well as job-seekers who had never before worked (for example, Lebanon 1998, and Mozambique 1997).

In a number of instances, attempts were made to record the prevalence of underemployment as well. Underemployment indicates the availability of additional productive capacity among the working population, and can be an important factor affecting the vulnerability of household livelihoods. It is conventionally expressed in terms of time (e.g. working less than a predetermined number of hours) or productivity (e.g. the existence of productivity rates below a predetermined benchmark). The Maldives VPA (1998) defined as underemployed a person who works less than 35 hours per week or 11 months per year. This, nonetheless, must be qualified, since not all those who work less than 35 hours weekly would want to increase their working hours, and therefore could be regarded as part-time workers instead.

The share of wages in gross domestic product may also be taken as indicative of increased vulnerability, arising from growing unemployment, falling wages and the

informalisation of employment. The share of wages in Lebanon has experienced a considerable decline over a 20-year period. This secular decline is interpreted as being a major contributor to poverty in the country (Lebanon 1998).

Conflict, disabilities and poverty

Another complex issue brought out in several studies relates to the hardship that results from disability due to war. In Mozambique, for example, it is estimated that there are one million physically handicapped people, many of whom were directly injured during the war or by land mines (Mozambique 1997). Besides the direct impact upon the victims, these injuries have increased the vulnerability of the households in which the victims reside by reducing the labour that is available to the household, while simultaneously increasing the care required by dependent members. Disabilities also arise from the health problems associated with poverty (such as tuberculosis), from malnutrition (rickets) and from the hazardous work that the poor often perform.

A related issue, also raised in Mozambique, is the vulnerability of children, especially those who resort to living on the street in response to conflict, including domestic conflict in the home. Amongst other issues, the risk of AIDS transmission rises when these children resort to prostitution in order to survive, as is the risk of drug and substance abuse.

Instruments for measuring poverty

In this section we look at the instruments and tools used to collect information on various aspects of poverty. Countries have resorted to both conventional household surveys and participatory forms of poverty analysis. We are particularly interested in cases in which data from different sources have been combined in order to yield new insights and perspectives into the analysis.

Official statistics

Census data provide a valuable source of information for the computation of various measures of wellbeing and access to services. Data from the national censuses were used extensively in Ethiopia, Lebanon, Maldives and Mozambique. In Lebanon, information from the health and demographic census was utilised to weight the indicators and components of the Living Conditions Index, while in Maldives official statistics were used to rank the islands as well as to calculate deprivation ratios. Although none of the studies mentions the many shortcomings frequently encountered in the collection of census data, problems with vital registration statistics were a subject of controversy in Maldives. The VPA team, in fact, found much higher levels of infant mortality compared to the official statistics collected by the Department of Health. This in itself is not a surprising finding, since

undercounting of infant deaths is common in many countries. What is noteworthy is that the government was open to discussing the discrepancies and finally accepted the methodology proposed by the VPA team (Maldives 1998).

Official statistics are also important for ongoing poverty monitoring. In Gambia, the National Poverty Monitoring framework envisages the use of administrative records from the public sector (central administration, local governments and state-owned enterprises), supplemented by the records generated by non-governmental organisations. The latter includes the schools, hospitals and clinics run by charitable organisations (Gambia 1997).

Household surveys

Information obtained from a number of household and sector specific surveys was a major component in most of the PSI studies. In particular, household budget surveys were used to calculate money metric measures of poverty, while child and maternal health surveys provided anthropometric and other data for estimating mortality rates. Labour force surveys have also been an important database.

The living standards measurement surveys (LSMS) are a derivative of the household sample survey based on large, multipurpose questionnaires administered to households selected via a probability sampling methodology (Grosh and Muñoz 1996). Promoted by the World Bank, LSMS typically contain some measure of wellbeing based on income or consumption data, as well as standardised modules on demographic composition, access to services and employment. An interesting sampling modification to the standard LSMS design was tested in Lesotho, where the research team isolated and conducted additional interviews with specially designated vulnerable groups. These included street children, informal traders, piece job workers, construction workers and retrenched miners. People in these categories were approached at work, at shelters or in areas that they were known to frequent (Lesotho 1997). While there may be some problems with the methodology adopted in Lesotho, the notion of an approach that targets specific sub-groups of the poor does have considerable merit.

Another interesting methodological innovation was used in Latvia (Trapenciere et al. 2000). The survey design was premised on a purposive sampling methodology. All the communities in Latvia were first ranked along a scale of high to low living standards in a manner that represents the different local economies, extent of urbanisation, geography, social structure and demographics of the various areas. The ranking was undertaken according to four categories: average earnings per capita, retail turnover per capita, number of cars, and number of telephones per 1,000 people. This exercise led to the determination of three 'welfare regions'. Interviews were then administered to poor people in the capital, main cities, towns and rural areas within each of these three regions. Municipalities and parishes in selected dis-

tricts of the three regions were chosen so as to reflect the country's diversity. The interviews were clustered around municipalities to enable an examination of community relationships and dynamics within certain areas. The households interviewed were chosen according to factors such as age and sex of household head, ethnicity, marital status, nationality, and education. Based on existing poverty data, special efforts were made to include large numbers of pensioners, disabled people, unemployed, families with children, orphans, former prisoners and other categories of people presumed to be at greater disadvantage.

Other useful methodological adaptations included:

- Conducting the 1996-1997 Palestinian Expenditure and Consumption Survey over twelve months to avoid seasonal variation (NPA 1999).
- Using multiple-stage sampling techniques, whereby certain areas and groups are purposively selected to ensure that highly vulnerable, but often hard to reach groups such as the homeless, are included. Apart from Latvia, this approach was followed in Grenada, where the size of the household was used to stratify the sample, based on the assumption that the poor households as a rule are larger (Kairi 1998).
- Using census data to elaborate profiles of the clusters in which sampling will take place, and integrating these data into the analysis (Lebanon 1998; Maldives 1998).
- Combining specially designed household surveys administered by official statistical agencies with the data generated by surveys carried out by various government departments. In Gambia, for instance, the Central Statistics Department, as well as the ministries of Agriculture and Health, which collect poverty relevant information on a regular basis through the National Agricultural Sample Survey and the National Nutritional Surveillance Survey, were all included as important sources of data (Gambia 1997).

Participatory poverty assessments

Participatory rural appraisal methodologies (PRA) draw upon various traditions of research, including applied anthropology, participatory action research, rapid rural appraisal, and agro-ecosystems analysis. Although the origins of the methodology are predominantly rural and generally related to participatory planning of natural resource management, they are increasingly used in a wide variety of contexts, including urban and poverty research. The methodology places a great emphasis on local people acting as analysts rather than as informants, while outsiders serve merely as facilitators. Instead of interviewing specific individuals, group contexts are used, with visual sharing of information and methods for ensuring that weaker or marginal members of communities are empowered to participate in the research process (Chambers 1994a, 1994b, 1994c).

Qualitative research methodologies were used for example in Uganda, where a series of Participatory Poverty Assessments were carried out applying a standard case study approach with a combination of PRA and other techniques. These included unstructured or semi-structured interviews of key informants, participant observation, focus group discussions and PRA tools such as resources, social and mobility mapping, time lines, wellbeing rankings, transect walks, and gender matrices (Uganda 1998a, 1998b, 1998c).

In Grenada, the poverty assessment carried out in 1998 applied a combination of quantitative survey and qualitative participatory methods. To select the communities for the national survey, all villages in Grenada were ranked based on a living conditions index developed from the 1991 census. Villages were then classified and given a value according to a ratio of 'met' to 'unmet' needs for all the households in a village. This ratio was then normalised to produce a percentage for each village, and the villages were ranked accordingly. Using this ranking and other secondary information available, the twenty poorest communities were selected along with two communities that had managed to escape from poverty. These communities were then interviewed using a Survey of Living Conditions questionnaire to generate the information required for the selection of the final 14 communities that took part in the participatory component of the study. The households to be interviewed were chosen on the basis of systematic random sampling, and workshops were run with these households in each of the survey communities. During these workshops, which applied a full range of PRA tools and techniques, people were given the opportunity to describe and analyse the type, level and degree of poverty that exists in their communities. This allowed the views and perceptions of the locals to be fed into and combined with the results of a national survey, so as to obtain a more thorough understanding of the poverty situation in the country (Kairi 1998).

A number of problems were identified with the application of the PRA approach. The reliance on translation from local languages was a frequently encountered difficulty as field researchers, including nationals, often were unable to speak all of the local languages. This may have resulted in a loss of important information, or of nuances in the views offered by the community. The representation of minority views proved to be difficult in most cases. The attendance of women and youth, for instance, was often reported to be poor. Even when they attended, they did not in many cases participate fully in the PRA sessions.

This problem relates to a frequently reported lack of clarity about the nature and dynamics of 'participation'. Concerns include the failure to account for issues of local-level power that inevitably shape the outcome of these exercises, the danger that dominant views are interpreted as universally accepted within a community, or the assumption that those present at a meeting are the true representatives

of the community. All of these issues can mask critical differences and conflicts that may exist within communities and households.

Furthermore, PRA techniques appear to be difficult to undertake in urban settings due to the 'heterogeneity and business mindedness of urban dwellers' (Lesotho 1997). Participants from urban settings were reported to be unwilling to devote the time required for the PRA exercises and, in some instances, seemed to object to the type of methodology being followed. In general, PRA was characterised as time-consuming, especially when there was a heavy reliance on visualisation techniques (Kayateh 1997b).

Spatial measurement and mapping

A number of studies have attempted to incorporate a spatial representation of poverty. This provides a valuable tool for informing governments' as well as donors' decisions for prioritising interventions and targeting investments to specially deprived areas. The National Programme for Social Action, Employment and Youth of Mozambique is a good example of how social and economic goals can be integrated, while retaining the local political context of development. The programme identifies specific target groups and priority areas, where it seeks to integrate its three components (social assistance, employment creation, and youth) with a view to making its interventions in support of the designated target groups

Box 4. The Spatial Development Index of Mozambique

As part of the pilot phase of the implementation of a National Integrated Programme for Social Action, Employment and Youth, an index was developed to assess the potential of each of the country's provinces. The main components of the index are:

- Economic potential, comprising four indices that reflect the material base of the province, its economic potential, population stability and food security, respectively.
- Access, comprising three indices, respectively of access to the province, road conditions and removal of land mines.
- Institutional means, comprising census data on selected occupation categories, availability of training centres and distribution of governance structures.
- District development, based on a composite indicator of infrastructure.
- Community collaboration, based on the involvement of handicapped children in a community service programme, the distribution of community run schools, and experience in community collaboration.
- Donors and international NGOs, based on the distribution of such institutions and their projects.
- Mozambican associations based on the distribution of local organisations working in social action and credit provision.

more effective. Using secondary data, a geographic strategy was developed for the implementation of the pilot phase of the programme. The strategy utilises a Spatial Development Index, which is based on seven indicators, some of which themselves are composite indices (Thompson 1998).

In Maldives, both the composite index of vulnerability and its 12 discrete components have been mapped into an Atlas using a Geographic Information System (GIS). The Atlas depicts the atolls that are most in need, as well as the nature of their need (Maldives 1998).[10] Similarly, all of Lebanon's districts (*mohafazats*) and settlements (*kadas*) were ranked according to the aggregate score of the Living Conditions Index of households in the area. Once again, the components of the aggregated index are depicted geographically, and the distribution of the population is overlaid onto the index in order to show the scale of deprivation by region (Lebanon 1998).

Multiple techniques and triangulation

One important aspect of many studies lies in the use of multiple approaches and techniques for analysing poverty. Researchers drew on a mix of primary and secondary data, adopted a broad range of conceptual frameworks, and made great efforts to combine quantitative and qualitative research methodologies. With varying degrees of success, the results of these multiple techniques were compared and triangulated in an attempt to corroborate or refute findings obtained with the use of particular research instruments.

The poverty assessment report of Grenada provides an interesting example of the successful use of multiple assessment techniques. The study consisted of three components. First, a national survey of living conditions was carried out to obtain quantitative information on the country's households. This was supplemented by a community situational analysis, which collected qualitative information from 14 communities. Finally, in-depth interviews were conducted with representatives of a number of governmental and non-governmental organisations and agencies operating in different spheres of economic and social life (Kairi 1998).

Latvia combined different quantitative techniques on the basis of three measurement instruments, two of which were applied to each household in the sample (Gassmann and de Neubourg, 2000). First, all Latvian households were interviewed, using a poverty survey that consisted of four modules. The first part asked about perceived changes in standards of living since the country's independence; the second one about the coping strategies adopted by each household; the third asked about social assistance services; and the last section about education of children, health and related issues. In addition to the national household survey, a household questionnaire following a LSMS format was administered to roughly one third of the sample, in conjunction with a consumption diary. Then a recall survey was con-

ducted with approximately two thirds of the sample. This survey included a questionnaire identical to the previous one, with a recall component substituted for the diary, in which informants were asked to recall the value and quantity of food and non-food items bought or received over the period of one month.

This is taken further in a proposal for the establishment of a poverty monitoring system in the Gambia, which recommends the collection of qualitative information to complement the quantitative data that will be generated by various government departments. The type of qualitative information to be collected using audio recordings, as well as other techniques, includes the perceived value of formal education, household perceptions of food security, and people's attitudes towards the environment (Gambia 1997). Given that the proposed monitoring system will rely on triangulating information from various government agencies, it seems that a coordinating body will be necessary to ensure the smooth functioning of the system. This body could also serve as a focal point or clearinghouse for contacts with other actors, since gathering information from non-governmental organisations is likely to be difficult unless they know with whom they are supposed to interact in government.[11]

Despite the obvious advantages of triangulating information obtained from multiple sources, several studies acknowledge that analysing and integrating the results of different research techniques is difficult, especially given the lack of coordination and capacities that characterises many countries. This problem suggests that this form of experimentation needs to be approached with care. Triangulation itself can lead to contradictory results, rather than providing supporting information from different sources. Resolving these contradictions then becomes an important challenge in itself.

Conclusions

Despite some important commonalities among national studies, it is far from clear that a consensus on how poverty should be conceptualised and measured is emerging. The efforts in many countries to adapt and expand upon standard definitions and methodologies belie the notion of a budding consensus. Usage of poverty lines and income proxies is quite widespread. But at the same time, there is a much larger concern for the relationships and dynamics of poverty than is suggested by the international literature. This concern is informed by a desire to reflect local realities more accurately than conventional definitions would allow. Emphasis is placed on understanding the social and relational dimensions of poverty, as well as the wider determinants of capability fulfilment, which money metric measures do not convey adequately. As the limits of economic definitions and measures are recognised, there is a corresponding search for viable alternatives.

The studies reviewed in this chapter have opened a window on some important but neglected analytical issues. Perhaps the single most relevant issue concerns the

exclusion and isolation that accompanies poverty. Studies in extremely diverse situations note the loss of social contact, humiliation and stigma experienced by the poor. This has both a social and economic impact, cutting the poor off from opportunities and support. This dimension of poverty has received little attention from international agencies, although concepts of social exclusion have had a long history in poverty research in the industrialised countries. In view of our findings, it appears that similar analyses seem warranted in developing countries as well.

A second important theme relates to the impact of war and conflict. The risk of exposure to violence is a valuable modification to current conceptualisations of poverty, which have tended to focus on its economic dimensions to the neglect of the political circumstances that lead to hardship. Our findings from national studies are a forceful reminder that a large proportion of the poor are affected directly or indirectly by conflict, which implies the need for integrating the political context into the analysis of poverty. In addition to the physical hardship associated with war, conflict typically results in a shattering loss of assets, massive displacement and constrained economic opportunities for vast numbers of people. Conflict also results in serious damage to infrastructure, collapse of social service provision and under-investment in major economic sectors.

Given the relevance of safety and security for the conceptualisation of poverty, it appears that more research into these issues is needed. At present, the analysis of the problems is underdeveloped in many countries, compared to the severity and resilience of conflict. A closer linkage with the issue of ethnicity also seems warranted, as ethnicity not only is a major dimension in conflict, but also often overlays closely with the distribution of poverty. The addition of a conflict indicator, such as gunshot mortalities per capita, into an HDI based index could therefore be of great value by highlighting regions in which lack of safety may contribute significantly to poverty.

Two other issues in which further analysis seems justified are gender and AIDS. Both are covered in some of our studies, but not sufficiently. Gender issues are sometimes subsumed into an assessment of female-headed households, but this overlooks the situation of the majority of women in most countries. Furthermore, while abundant research has questioned the usefulness of the notion of headship for poverty analysis, none of the studies reviewed here echoes this concern. An area of further inquiry, which could benefit greatly from support from donor agencies, relates to the development of innovations in the analysis of the gendered dimension of poverty. These might include an examination of intra-household bargaining and decision-making processes, as well as the distribution of resources and income flows within households.

With regard to AIDS and its impact on poverty, future analyses need to ensure that apart from reporting on its prevalence, an effort will be made to identify the

second level effects of infection. These would include both the macroeconomic and microeconomic consequences of AIDS, including its impact on labour markets, health spending, loss of productive labour, AIDS orphans, and the time required to care for infected people.

Our findings also reveal that there is a fair amount of experimentation in relation to the methodologies employed for the measurement, analysis and interpretation of poverty data. In an attempt to capture the multidimensional nature of poverty, most studies have tried to combine different data sources (censuses, household budget surveys, maternal and child health surveys, participatory community assessments, etc.) into the analysis and, in a few instances, into the establishment of an integrated poverty information system. Macroeconomic and fiscal data have been combined with information about social service facilities and infrastructure, to allow for a comparison between financial inputs and human development outcomes. Efforts have also been made to depict the spatial distribution of poverty and vulnerability in a few countries, for example by ranking atolls (Maldives) or districts (Lebanon) according to their level of deprivation.

The integration and standardisation of multiple data sources seems worth supporting. Further experimentation needs to be encouraged, as the new insights that emerge often are invaluable. International agencies should consider the possibility of providing technical and financial assistance to countries for the integration of databases on various aspects of poverty and deprivation. In some instances, this might require the development or dissemination of software packages that convert data into different formats, or that edit data fields to assist the merging of data sets.

However, care must be taken to ensure that standardisation does not obscure the specific circumstances of poverty in individual countries. In search of synthetic measures, many countries have development composite indices following the example of the Human Development Index introduced by UNDP in 1990. However, attempts to capture the multidimensionality of poverty with the help of composite indices have often been vitiated by the problem of arbitrary weighting of its components. In some cases, the individual components that make up a composite index are not well correlated, suggesting that they may refer to aspects of poverty that affect different groups in many diverse ways. While this need not be a serious problem when those indicators are reported separately, critical differences may be concealed when they are combined into a composite index. For this reason, rigorous testing is required if these measures are to be used as a reliable and unambiguous source of information on which policy decisions will be based.

Most importantly, development agencies must be willing to invest in creating a sustainable research infrastructure in developing countries, with the purpose of enabling them to carry on the statistical, analytical and policy work related to poverty after the withdrawal of external support. Statistics in many of these coun-

tries are often incomplete, inconsistent and of poor quality. Consequently, building national capacity for the collection, processing and interpretation of official statistics is an important first step for adequate policy analysis and monitoring to occur.

Mechanisms are also needed to ensure that local researchers are equally equipped to make use of the data, whether in universities, non-governmental organisations or government agencies. Only in this manner will it be possible to ensure that the results of the analytical work carried out by the statistical offices is integrated into processes of public debate and advocacy. This, in turn, will improve the prospects for reabsorbing those results into the design and implementation of policies for poverty reduction. ∎

Notes

Julian May is Director of the Population and Poverty Studies Programme, School of Development Studies, University of Natal, Durban. He would like to thank Alejandro Grinspun, Rasheda Selim and Siddiq Osmani for their comments on an earlier version of this chapter.

[1] Different types of occupation were assigned different scores. Senior officials in the government and the private sector were given the maximum score of 2, while unskilled workers were given a score of 0.5. Each individual in the household was given a score, and a mean calculated for the total household. While this methodology may be useful in the cases in which no income data is available, the scoring process used in Lebanon seems unrelated to the scale of salary differentials across occupational categories. Moreover, a strong case can be made for using the maximum score of the household values rather than the mean.

[2] One of the advantages of the poverty dominance theory is that it relies on a sensitivity analysis using a low, medium and high poverty line to test the ranking of whatever unit of analysis is chosen (atolls in the case of the Maldives). These are then mapped onto cumulative distribution frequencies of the chosen indicator. If the frequencies of the indicators for different groups do not intersect below the maximum possible poverty line, then one group can be definitively considered to be poorer than the others. Second order dominance tests can be used if the cumulative distribution frequencies do intersect below the maximum possible poverty line (Foster and Shorrock 1988; Maldives 1998).

[3] The poverty gap index (PGI) is obtained by multiplying the headcount measure by the average income shortfall of the poor (i.e. the distance below the poverty line). This is one of a class of poverty measures known as the FGT set of measures, after the names of the economists Foster, Greer and Thorbecke (Foster et al. 1984). A possible extension of the composite threshold approach followed in the Maldives would have been to square the PGI in order to give greater weight to areas in which poverty is deepest. This method follows the logic of the FGT approach that underpins much of the analysis undertaken in many of the studies sponsored by UNDP. With the exception of Grenada, however, refinements of this kind were not explored

in any of the countries under review.

[4] One example is the capability poverty measure (CPM), an index developed by UNDP that is composed of three indicators that reflect the percentage of the population with capability short-falls in three basic dimensions of human development. The three dimensions refer to people's capacity to live a healthy and well-nourished life, to have access to safe and healthy reproduction, and to be literate and knowledgeable. The CPM differs from the HDI in that it focuses on people's lack of capabilities, rather than on the average level of capabilities in a country (UNDP 1996).

[5] For example, the presence of households without electricity results in a penalty of one point, which is then weighted by the percentage of households who report that they do not have elec-tricity. In some instances, such as transport, the indicator used affects the entire population in an island. As a result, the penalty points are effectively weighted by 100 per cent (Maldives 1998).

[6] Wasting and stunting are considered to exist when observations fall outside of two standard deviations from the distribution applicable to the world's population. General malnutrition is expressed in terms of low weight for age. Chronic malnutrition is reflected in a low height for age (stunting or linear growth retardation), while acute malnutrition corresponds to a low weight for height (wasting), which could be the result of a recent illness rather than malnutrition.

[7] In cases in which some data for calculating regional or state indices are missing, a common solution has been to use an amount that is constant and equal to the national figure. This has been the case, for instance, with the income component of the HDI, where sub-national infor-mation is often unavailable. This seems, nonetheless, to be a reasonable option in low-income countries, in which social indicators tend to make the largest contribution to the index.

[8] To some extent, the methodology adopted in the *Vulnerability and Poverty Assessment* of the Maldives rests on rests on the Basic Needs approach. Such basic needs may be thought of as comprising material and non-material needs, with clean water and primary education as exam-ples of the former, and political and judicial rights as examples of the latter. Composite indices developed from these basic needs indicators are in many respects similar to other social indi-cators, although attention is specifically placed on a bundle of core needs where lack of satis-faction is considered to provide an indication of poor living conditions. An important advan-tage of a basic needs indicator over other composite measures is that it can be calculated at the household level, and need not require cluster or regional level data. Unsatisfied basic needs mapping also has the potential to feed more directly into sector policy analysis.

[9] Nevertheless, the relatively low correlations found between the components of Lebanon's Living Conditions Index are a cause for concern. Only the education and income indicators show a Pearson's correlation coefficient greater than 0.3, suggesting that the different dimen-sions of the poverty index are largely unrelated. A further problem derives from combining indicators of goods or services that are publicly provided, like water supply, with those that require both public and private action (e.g., educational attainment requires schools, the abil-ity to meet the costs of education, and willingness to learn).

[10] The VPA calls for further analysis of its data set. Specifically, it recommends the use of mul-tivariate techniques to explore correlations and possible causal linkages between the many

variables that have been calculated, which would further enhance the preparation of intervention strategies. The report also calls for content analysis of the many open-ended questions asked during the household and cluster level surveys. Finally, it notes the existence of other datasets for the Maldives, and recommends their integration into a national Geographic Information System.

[11] Available capacity is very limited in the Gambia. While indigenous capacity is built, therefore, it is proposed that small ad hoc surveys be conducted by donor agencies and non-governmental organisations as a stopgap for information. Furthermore, in the interest of limiting the costs of data collection, it is also proposed to limit surveys to particularly impoverished areas to be identified using the results of the 1993 Household Economic Survey.