

CHAPTER VI. STATISTICAL ISSUES IN MEASURING POVERTY FROM NON-HOUSEHOLD SURVEYS SOURCES

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Introduction

This chapter provides an overview of the wide range of non-household survey and administrative data sources often on hand to amplify a broader understanding of poverty and the poor. This information can help describe the social context and type of society that preserves such conditions among low-income households. It highlights the multi-dimensional nature of poverty and the different situations people encounter as they try to escape poverty. The discussion explores the possibility of supplementing the deductive analysis permitted by a scientifically-designed household sample survey, where conditions observed are formally extrapolated to a predefined universe, to provide a greater understanding of the population under investigation. Such household survey information can then be complemented with related official indicators and less conventional data drawn from less rigorous and formal inductive survey procedures.

Household-based surveys, both cross-sectional and longitudinal, provide important economic and social information about the human condition. Cross-sectional

surveys tend to inform on the nature and status of individuals and the households they belong to. Longitudinal surveys reveal how people are affected by, and adjust to, changing circumstances over time. But such surveys are imperfect instruments of inquiry because they suffer from varying and often indeterminate item expenditure non-response as well as household unit non-response. The data collected in household surveys are also subject to observation and measurement errors. Most importantly, they sometimes fail to pick up key information at the extremes of spending lifestyles because their scope misses out certain consumption behaviour of very poor and very rich households. Data compiled from conventional household surveys thus need to be supplemented by information collected about individuals from additional and, in some cases, with more comprehensive and extensive coverage but less detailed questions.

Researchers are willing to relinquish some of the benefits of a standard survey (based on recognized probability sampling methods that generate known means and standard errors of the estimates) because they can trade them off against a more qualitative approach that tries to touch on relationships and identify the purposes behind individual activities. Adoption of qualitative survey methods offers the opportunity for more penetrating insight into how certain groups of people behave and respond to different socioeconomic stimuli and policy initiatives. With inductive approaches of this nature, the primary problem is to identify the appropriate universe to which the observed characteristics of the selected sample apply. The procedure recognizes the advantages of advancing non-scientific methods to reduce the non-sampling errors (at the expense of

introducing an unknown sampling error) and to amplify the underlying picture and provide greater in-depth knowledge about a given situation.

6.1 Prospects for expanding the poverty Database

Apart from improving household survey methodology and significantly extending data coverage, the primary means of expanding the Database is to amplify and strengthen survey findings with routine administrative data collection procedures and to bring in alternative survey sources. Expanding already complex multi-topic household surveys is proving to be increasingly expensive, and extending these surveys involves, in many instances, implementation of an even wider multi-faceted approach.

Administrative information is required to provide a comprehensive perspective and to give specified contextual population relevance to the more detailed survey findings. Combining administrative records and survey sources can throw clearer light on a problem and its multiple dimensions. Introduction of official data from regular reports provides analysts with the ability to monitor more consistently what is transpiring on an annual basis. In the case of poverty analysis, this may be especially relevant if the characteristics of the poorest households, such as their size, age and sex composition, as well as the nature of their habitation and where they live and, indeed, how they use this

asset, is markedly different from the majority of households covered in a traditional survey.

It is increasingly accepted, though not yet common, to supplement the results from national household surveys with other useful information, mostly of an official nature, that is currently available 'off-the peg' from existing files and documents and from special searches of other sources. Administrative files provide a first line of potentially useful information in this connection, especially in those instances where attention is paid by policy-makers to disadvantaged groups and where officials are required to monitor conditions and report on actions taken in this area. Importantly, from a statistical perspective, the sample for a general household survey will usually have been designed with objectives that do not focus specifically on obtaining, in an optimal way, key information about the poorest households in the community. Most surveys of this nature would require a higher sampling fraction for poor households [or, more precisely, of the areas in which such households are most likely to be found]. And this would have to be greater the lower the expected level of incidence or frequency of poor households. All this raises costs because it is rarely possible to lower the sampling fraction for the rest of the survey to compensate for the need to sample poor households more intensively.

If compromises are not made, like reducing topic coverage, then it is quite possible the authorities may decide to conduct such large-scale surveys less frequently and to rely increasingly on other sources of information. The same governments,

however, will probably continue to demand annual updates of key national and, possibly, urban-rural data. They may also demand data on a more politically sensitive regional basis. For this, more comprehensive national data series, such as the national accounts and related indicators, will be required.

6.2 Limitations of Household Surveys for Poverty Assessment

Intangible institutional factors and cultural influences underline some of the difficulties that limit complete reliance on conventional household survey data to understand the extent and nature of poverty. Such surveys are also expensive and difficult to manage. They cannot be conducted every year in most developing countries, especially without substantial and continued outside support, and the continuity of monitoring is often lost.

Some observers have also questioned whether the unitary household, as initially defined by the census, and thus applied in all associated surveys, is entirely appropriate for all kinds of poverty research. For some purposes, the extended family may be more relevant, particularly when interpreting the production, consumption, and social protection activities of nuclear units and how each functions. Understanding the nature of the unit is important to understand intra-household transfers and different sharing mechanisms. In other circumstances, it is the individual who should be the main focus of

attention. In the OECD, for example, there is considerable policy concern about child poverty. Low-wage employment and the relationship of household well-being to the unemployment or disability, whether permanent or transitory, of the head of the household are equally important social policy concerns.

An important limitation of the standard approach in connection with poverty inquiries is that a survey is not a very refined instrument for analyzing regional variations within households. If, with given resources and an expected error acceptance/tolerance level, the size of the survey has been predetermined and optimally designed to serve some more general purpose, and if the number of households thought to be poor represents, say, 20 percent of the total population, then the survey will not generate meaningful estimates of poverty characteristics. Nor will it provide, detailed, representative data covering different areas of inquiry and locations.

As indicated above, a significant limitation of the standard household survey is that it usually provides only a single (albeit important) snapshot of poverty as it pertains to a well-defined survey period. Policy analysts, however, are more interested in how poverty changes over time, particularly in response to various policy initiatives and the general increase (or decrease) in household incomes. Tracking changes implies a dependence on more regular reporting methods that arise as a by-product of routine administrative processes. The problem is then one of choosing the most relevant official indicators as proxies for changes in the substantive variable under investigation.

Some researchers have suggested use of a master sample with a defined frame that permits a number of related inquiries to be undertaken simultaneously or sequentially addresses the issue of multi-dimensionality. It would allow large surveys to be supplemented between years by much smaller surveys that are more specifically focused on poverty issues. While this is an alternative way of circumventing the difficulty of handling the above issues, the approach retains the overall integrity of the survey methodology and master sample framework, preserving the inherent consistency and comparability of the estimates. But it also poses its own set of problems. In particular, it is complex from an organizational standpoint, and it tends to ignore the practical difficulties of maintaining a comprehensive listing and of correctly and efficiently updating the required frame on a regular basis to achieve the desired level of coherence and sequential consistency.

From an international policy perspective, it is clearly desirable to have comparable data on poverty across countries to obtain a common overview of the problem and its characteristics. Although there are standard survey methods for computing difficult values like imputed income from self-production and income from home ownership, the absence, in practice, of a common international treatment of these issues and of a harmonized questionnaire and associated data collection procedures, hampers comparability. From a procedural standpoint, the pattern of non-response from

responding households and their specific response ranges/levels on different issues varies between countries.

6.3 Integrating Different Data Techniques and Sources

For the above technical and practical reasons, delving into other official sources that concentrate on the conditions and status of individuals [instead of the households to which they belong] and bringing in other ‘topic specific’ survey approaches is clearly important.

Closer integration of quantitative and qualitative approaches through the selective combination of survey methods and administrative data sources is intended to provide a better and more comprehensive perspective on the scope of poverty. While no specific course of action is advocated, the potential of matching in-depth analysis and results offered by small well-focused samples and mapping the findings on to larger scientifically designed surveys and benchmark reference databases together offer one of the more promising ways to strengthen existing knowledge. Information gathered to enhance the policy-makers’ understanding of the varied and wide ranging issues involved in tackling poverty should allow them to refine the analysis and to place the required emphasis of action on specific regions and target groups at risk.

Adoption of mixed-method techniques usually means having to resort to different institutional sources and quite independent non-official inquiry methods. It implies a

reliance on a wide variety of perhaps questionable data sources when bringing relevant information to bear on the poverty problem. Because they observe different mandates and have other defined objectives, many organizations may not focus primarily on poverty. Furthermore, because of the difficulties of balancing the conflicting demands of sample size, survey costs, and information requirements--and because they are not basically statistical agencies--some sources do not compile quality data. Nevertheless, provided care is taken to identify potential biases, researchers should not pass up the opportunity of making selective use of any readily available related information that cannot be gleaned from official sources.

Household survey results tend to be generated at rather infrequent [and usually irregular] intervals, whereas much of the administrative data on official files is reported annually and (like wages and prices) may be compiled at more frequent intervals. An important part of the survey story will relate to the non-market activities of the household sector. These activities are invariably less easy to quantify at the individual and household "use" level and need to be complemented with official data on facilities, service supply, and effective delivery.

Ability to draw together the micro and macro factors that impact poverty and to blend the material and non-material elements that comprise the market and non-market aspects of household behavior forms the basis of a more holistic perspective of the poverty problem. A comprehensive database can yield insights into intangible issues,

such as differential access of households at different income levels to the opportunities, entitlements, and various forms of official service support open to the public.

The logical starting point is to review the miscellaneous kinds of information resources already available and make an assessment of how they can be used to give greater depth and background to the core household survey information. Practical experience in the use of such material will offer hints and suggest guidelines about how existing reporting procedures can be modified to make them more relevant and reliable. The main non-survey (administrative) sources and non-household survey methods that may be employed to broaden the approach and their limitations are described in more detail in the sections below.

In addition to the more variegated picture related data sources lend to any status evaluation, establishment of acknowledged benchmarks linked to the decennial census [and to any embedded sample census module], or that can be supported in the interim by data from a quinquennial partial census, enable analysts to obtain a reasonable idea about overall trends in poverty related to social and demographic change.

6.4 Multi-dimensional Nature of Poverty

Universal political consensus was achieved in 2000 on the core Millennium Development Goals [MDGs], together with the joint agreement between countries on a set of standard indicators and targets. These indicators were correspondingly established to assess progress towards the accomplishment of the eight major articles of international development policy. And there was national agreement to monitor them regularly. This consensus has given common direction to poverty inquiries, and greater global recognition to the diverse and multi-dimensional nature of poverty. The higher political profile given to poverty eradication has concentrated popular attention on relative deprivation and its possible causes. The MDGs underline the importance of looking more comprehensively at the combination of both material and non-material goods and services available for use by households to raise their general living standards. These commodities originate from market and non-market sources, and their consumption represents both the outcome of sovereign choice and the government's own contribution to well-being by supplying public goods and services designed to satisfy both individual and collective needs. In the developing world, this crucial provision of "free" non-market goods and services that are clearly valued and used by households, is also undertaken by NGOs. The MDGs have helped direct public attention to the imbalances between various sections of the population with respect to the disparities in lifestyles they experience, their comparative ease of access to public facilities, and their ability to gain a ready command over the range of public goods and services potentially available to them.

This section thus explores what respective data sources, beyond those of household surveys with an alleged national coverage and those utilized in the broadly

based national accounts, should be sought to help expand knowledge about poverty--its incidence, severity, and extent. Relevance and reliability of additional data sources and their limitations, and the techniques adopted to exploit them, are discussed below. This appeal to the broader concept of data mining reflects a rapidly developing interest in this area of statistical analysis. It acknowledges that it is generally cheaper to review and take what is already available than to launch an entirely new survey, *ab initio*. However, changes in these formal sources may be similarly taking place as governments redefine administrative directives and departmental responsibilities in line with new policy objectives.

Detailed analysis of public sector accounts supplied by government for direct use by the population that identifies expenditures on goods and services – though it does not effectively assess how fairly these are delivered to intended recipients - is a prerequisite for understanding what the government spends and how well it has been able to respond to the needs of the people. The pattern and allocation of official spending may not necessarily correspond to the officially perceived needs of people. Given the existing scope of inequality, the ability of any government to carry out a poverty reduction policy, especially strategies that combine conventional economic growth and marginal income redistribution through taxation, can only be tested by seeing how far the extra resources generated in the economy are spent on improving those health and educational services available to the poorest households and regions.

The MDGs and their associated targets are shown in the annex of this Handbook.

This listing begins the process of identifying and distinguishing between,

- those parts of the compact that are susceptible to direct action by the resident agencies with direct responsibility for such issues, and,
- those that depend on the national government to implement appropriate pro-poor macroeconomic policy or on international action that brings benefits.

6.5 Poverty Measures and the Millennium Development Goals

There are only two poverty measures that are directly defined in the MDGs. One is concerned with the scope of poverty (total number of poor people), the other focuses on the extent and severity of poverty. The depth of poverty reflects the degree to which poor people's incomes fall short, on average, of an officially recognized minimum threshold level. Even this measure does not identify all those households and families that societies normally regard as "living in the depths of poverty" or "on the edge of existence." So other classifications may be needed to distinguish, "the poorest of the poor." Traditionally, certain single measures--such as the extent of malnutrition or degree of unemployment among unskilled workers--have been regarded as key indicators of poverty. Selected indicators used to determine which groups go hungry are seen by many as defining whether someone can be regarded as poor or not.

6.5.1 Relevance of the MDGs

By drawing attention to the general aspects of deprivation, MDGs have underscored the wider multi-dimensional and inter-connected nature of poverty. Even the most casual empirical analysis cannot fail to notice that malnutrition, inadequate shelter, unsanitary living conditions, lack of clean water, poor solid waste disposal, low educational achievement combined with the absence of proper schooling, chronic ill health and widespread crime are salient features of poverty. Each of these facets needs to be quantified to determine the degree of poverty and assess the strength of poverty's inter-relationships with other characteristics that appear to sustain it.

A key problem is that independent statistical information on such matters--where it exists--is generally available only at the national level mostly from official administrative sources. To enhance their relevance, national data also need to be disaggregated by socio-economic category or, at the very least, by distinct locations small enough to assist in the identification of those belonging to constituent population groups. This will make it easier to see the problems poor people face and help investigate their specific levels of existence and patterns of living and thus help policy initiatives target needs.

Small area sampling procedures that can help examine these issues pose a complex range of technical, methodological, and practical questions, especially in relation to the frame and universe to which the studies refer. For the most part, smaller and specifically targeted socio-economic surveys are rarely conducted directly by national statistical offices [although some official studies may be outsourced]. This makes it difficult to fully integrate a small sample survey's results into an established national benchmark.

6.5.2 Significance of non-market goods and services

It is desirable to compile data not only about material living standards (where these can be seen primarily as the outcome of consumption preferences as revealed by the actual choices people make in the market), but also about how non-material goods and services are distributed among households. In the absence of suitable available files, such details have to be picked up from a variety of public and private sources of information. Compilation of indirect and partial data, collected mostly to serve miscellaneous bureaucratic purposes and record administrative actions and decisions, is important for building a more comprehensive picture of people's living conditions.

This information extends beyond simple calibration of an individual household's sovereignty over the market supply of consumption goods and services; it touches on the total supply of commodities on which value is placed by the community. To this should be added, in any overall assessment of poverty, data about the value of social benefits to

which some households may be entitled and on social transfers they receive voluntarily on a fairly regular basis.

6.6 Problem of determining Causes and Effects

Are the identifiable features of poor living conditions and social deprivation the causes or effects of persistent poverty--or both? In the past, it was common for politicians to refer to “the vicious circle of poverty” because it was difficult to disentangle the endogenous from exogenous factors affecting the condition and thus to distinguish the initial cause and effect. But, it is widely assumed that general economic and fiscal policy [i.e., tax, subsidy and transfer actions as well as ministerial spending decisions] can together play a crucial role in this equation. A coherent fiscal strategy may be more relevant and probably more sustainable than a difficult-to-define ‘pro-poor’ growth policy. In other words, if it is the government’s intent to conduct a fair and equitable social policy that will pay special attention to the needs of the poor over the longer term, then it may not be necessary to distort the core thrust of economic policy and upset the basic quest for overall real income growth.

But, by the same token, government must maintain consistent oversight of where the progressive incidence of its taxes fall and monitor the socio-economic distribution of government expenditures destined for collective and individual household consumption.

This requires national statistical offices to prepare, in the interests of distributive social justice, beneficiary accounts that detail the allocation of government current expenditures, as well as the value of subsidies and transfers, that go to different groups of the society and how these benefits are paid for.

The logic of developing new approaches to data compilation to guide policy initiatives and that helps officials to gain access to information to explain the broader dynamics of poverty is self-evident. Most poor households possess few personal assets and enjoy only minimal and irregular income receipts. Continued low-income status of poor households can be viewed as the direct outcome of social and cultural factors, along with technological change that impinges on their employment conditions over which they have little control. This results in the casual and uncertain engagement of poor people in the economy. Their employment often generates only sporadic and variable income that is of limited value and typically not very fungible. Receipts can rarely fund more than the most immediate personal needs. And for other needs, households invariably have to resort to borrowing. Because of these tenuous and ill-defined links between consumption patterns, social status, and economic engagement of poor households, a fuller understanding of such issues as the scope and nature of unpaid farm work, and low-paid economic activity in informal 'gray' sectors, remains a primary objective of most statistical offices.

6.7 Data Mining from Additional Sources of Information

Conventional household surveys do not always provide all the appropriate information to set up comprehensive “scorecards” for households and scoreboards to help define priorities. Main administrative and non-official sources of data survey organizers and government officials can tap into amplify the socio-economic issues identified by household surveys and give suitable contextual relevance to survey findings described briefly in the following paragraphs. Trawling for any relevant information in each of these categories that can be meaningfully related to the common concern for better poverty measurement, nevertheless, raises some of its own data problems and issues

6.7.1 Quantitative sources

The majority of alternative and additional information, of a quantitative nature, tends to come from official data sources. The following are the main categories:

A. Censuses, sample censuses, and partial censuses

Censuses of population and housing as well as of agriculture, industry and employment are regularly conducted by most governments, but usually at only ten-year intervals. A population census, in particular, can provide the most basic information on well-being and, for this reason, it has been chosen as the preferred data source for the unmet basic needs (UBN) approach to poverty measurement (see Chapter 4). With recent analytical advances, it has been possible to overcome the limited geographical coverage of household surveys by using census data in the construction of poverty maps and

selected small area estimation techniques (See Chapter 7 for more discussion on poverty mapping techniques).

Census data can be disaggregated at very low geographical levels, unlike those estimated from household surveys where the limitations of coverage and sample size prohibit estimation of relevant population characteristics at this level. The degree in which geographical disaggregation is possible in data generated from administrative records is also limited by the initial records design and the way the bureaucracy is structured.). Most official files refer only to highly aggregated levels of population concentration such as provinces or districts that are politically determined or to even broader urban and rural regional definitions. In addition, given the broad topic coverage of the population census and the high sensitivity of social outcome measures (such as infant or maternal mortality and school enrollment) to specific government interventions and policy changes, population census data can (and should) be used to gauge the overall effectiveness of poverty-alleviating programs. The demographic and economic geography of poverty can be related to the availability and distribution of human and physical resources, evidence of which can often be found in reports of the health and education sectors. (See, country examples from Latin America in Chapter 4).

Censuses and the technically imbedded in-depth sample census modules (which generate more detailed information) provide a rich source of benchmark data. However, the nature of the census organization and the coverage and timeliness with which the

results are disseminated can seriously limit the usefulness of the results for detailed socio-economic analysis whatever the primary focus and subject of the inquiry. In these circumstances, the term "partial census," (while generally applicable to most industrial and agricultural censuses where the proportional selection of homogeneous smaller units is common) is used here to refer to interim national inquiries that are more limited in scope than the complete census and covers only certain core components of a conventional survey. For example, a quinquennial population census held between decennial benchmarks will tend to concentrate on the total population count and on the core demographic characteristics of indigenous citizens. For such broad enquiries, a 10 or 20 percent sample may be all that is required.

Population and housing censuses invariably serve as the primary source of basic reference information about a country's population, its age and sex composition, family size, migration characteristics, locations where people live, and the nature of the dwelling units they inhabit. Similarly, enterprise-based industry and employment censuses [or, more usually, combined census and survey inquiries] provide evidence of job characteristics, skill and occupational levels, and main sources of family income.

However, total wage information in itself may be of limited value because what is really needed for poverty analysis is an individual profile of how wages are distributed to employees. More specific data relating to average weekly wage rates, wage earnings, and hours worked in different occupations—tracked by enterprise surveys--can go a long way

to filling in knowledge gaps about households with a defined source of economic support. Subsequent analysis can go into how many might be living at or near the breadline, that is on the edge of subsistence, or close to some other officially defined poverty level. This source of information exposes the threats reliance on a unique local source of employment might pose to a household's sustainability.

Both farm- and land-holding-based agricultural censuses produce primary information about the sources of income in cash and kind that support rural households. They also provide other useful insights into the pattern of cultivation, occupations, and family characteristics, but not necessarily information about the actual engagement of family members in non-farm work within the household. Information about how household living standards are affected by off-farm employment of family members and how a household's status is also related to land ownership and tenure conditions is usually collected in an agricultural census.

As in most comprehensive studies of these kinds, the devil lies in the detail of a census and in the capacity of analysts to utilize the massive amount of detailed micro data on hand for linking the same households across areas of interest or in identically matching them. Such sources provide useful information about the characteristics of each household, the nature of their economic activity in a particular location, and how these socio-economic features differ both from place to place and over time.

All censuses are essentially area-based surveys. They are linked, one way or another, within a defined overall survey frame to geographically distinct enumeration areas that are identified in terms of population numbers, area size and housing density. The frame is designed to facilitate administrative management and organization of census operations, including enumeration tasks and actual physical collection of data. The listing of areas and households is thus not purposely defined with any specific survey objective in mind. Within this frame, housing units or farms can be identified as the basic units of inquiry and these lead the visiting enumerators to the identification of the separate households living in these units. Each household is comprised of individuals who are linked to each other in a more or less permanent social contract and in a formal economic way. Households are not necessarily families, and several households may inhabit the same housing unit. Sometimes, in a socially supportive environment, this may confuse and complicate the analysis of poverty and its incidence.

Information on the quality of the housing shelter and about the available living space is usually collected independently. In the past, this task was generally performed as much for the specific identification of housing units as to better understand why people were living in such conditions. Primary listing of units provides a first indication of the level of living of those inhabiting specific forms of shelter. Conditions of different households and their housing situations can be compared across the same enumeration area and also with other areas where households of the same size and with a similar age

and sex composition live. Some researchers have attempted to link different types of households to a particular housing unit type.

Problems can arise, however, where some sections of the population do not belong to a defined housing unit or are periodically confined to institutions, such as hospitals, nursing homes, asylums and prisons. Others not listed may not have any fixed abode and thus regularly sleep [or 'doss down'] on the streets and in common public areas like parks and railway stations. Even countries like the USA have encountered these problems in census inquiries, and census officials around the world continue to face difficulties in correctly enumerating sub-groups like the homeless and illegal immigrants. This problem invariably results in the significant undercount not only of the population but also of the housing space problem. In many instances, these conditions are closely related to issues of poverty, access rights, and other forms of individual deprivation.

Population censuses will sometimes contain information about educational status (such as enrollment, qualifications gained, and level of schooling attained) and the number of years of education completed by different members of the household. Historically, some censuses have included individual questions about health status-- physical and mental. But this is now much less common because the results have never been considered reliable. There is generally no way for a census enumerator untrained in health matters to check on the validity of the information provided about health status and

medical conditions, even if the questions relate only to current health status and are directed to the nature of an evident complaint or permanent physical disability.

Population censuses or, more usually, the sample censuses imbedded concurrently with them, may also compile information on a person's declared occupation. This is not the same as his or her employment status, which is clearly relevant to a poverty assessment. And it does not provide an unambiguous indication of the industry in which the subject is engaged. The known existence of a particular industry or factory in that area, however, may afford some greater insight into a family's social standing and economic vulnerability. Additional data to amplify their situation can be collected from the industry directly if the rules of anonymity and confidentiality are properly observed.

Analysts can also resort to the more specific enterprise-based employment and wage censuses and regular surveys to provide information at the local level on income receipts and comparative economic well-being. Cross-matching such (grouped) data relating to individuals to monthly cost of living measures is straightforward. However, matching wage information to the customary housing unit-based census data is less easy, especially where, at the micro data level, a common link through occupational designation and employment status is not available from either source.

B. Ministerial reports and administrative records

A wealth of information on social welfare is available from administrative sources, but such data are primarily used for administrative budgeting and program implementation purposes. Use of administrative records for poverty estimation and analysis of the conditions of the poor is generally not done in the majority of poor countries. There are few exceptions, mostly in developed countries, where poverty is estimated from a register-based information system. For example, Denmark and the Netherlands measure poverty and its characteristics based on various administrative data relating to income (gross and net) from tax records, security benefits, disposable income, education, costs of living, housing situation, net housing cost, demographic, family and household characteristics, economic and social status. Administrative data is also used to identify expected sources of poverty, such as short- or long-term illness or disability, or long-term unemployment. (See: Rudolf Teekens, Bernard van Praag (1990) for more detail on these two examples.)

A common use of administrative records in poverty-related studies is to provide cross-checks of survey-based analysis. Administrative records from line ministries and related agricultural, community services, educational and health departments, usually contain relevant data for poverty analysis. Such sources can provide benchmark statistics to assess the plausibility of poverty estimates and changes in poverty levels through time.

An instructive example of validating poverty estimates using administrative data is given in Ravallion and Sen (1996) using data from Bangladesh. Applying agriculture

yields and prices collected by the ministry of agriculture to assess the likelihood of change in household farm income, the authors found it was possible to identify conflicting results of poverty levels for various years through the 1980s. Key to the validation was consistency of the estimated changes in poverty with observed movements in real agricultural wages, with the latter having been seen as an important determinant of welfare for the rural poor.

Centrality of human capital in the fight against poverty has been researched extensively. It is widely recognized that indicators of human capability achievements, such as access to public health and education services, are poorly reflected in the traditional per capita income poverty measure. Non-income indicators, notably life expectancy, infant mortality, and primary school enrollments should be used to compensate for the limitation of relying solely on the income metric as an indicator of relative deprivation

Administrative records of health and education can provide useful proxies for constructing preferred indicators of social progress. Service records of health units, for example, contain relevant information on the general health status of individuals. More relevant to the characteristics of poverty are data on birth weights, the nutritional and immunization status of children under-five years old, all of which are customarily collected by midwives and local nurses. Major support for these programs in different areas comes from agencies like UNICEF, UNESCO, WHO, the World Food Program, and FAO. Involvement of several of these agencies in other survey activities, such as the

MICS and DHS inquiries, helps ensure more comprehensive and reliable data are collated on the ground.

There has also been increasing advocacy for using health outcomes to more broadly gauge the success of economic development policy. It has been argued, for example, that mortality data have distinctive features for understanding the relationship between the economic and “capabilities” dimensions of poverty. Sen (1998) examined life expectancy in relation to GDP and income in selected countries and concluded that the links between GDP and life expectancy most likely work through the provision of public health care and poverty alleviation. (See also Anand and Ravallion, 1993 for similar findings.)

Sen’s analysis also provided support for claims that mortality statistics most adequately depict socioeconomic inequalities, including the gender and geographical differentials in poverty outcomes. While the link between economic and social aspects of poverty remains an observable feature in mortality data, inferential analysis based on mortality data is not straight forward. For example, both income and the availability and utilization of health care facilities are important determinants of life expectancy. Mortality data are established from both civil registration data and population censuses. Using these sources to identify poverty spots might only be possible if a lower level of geographical disaggregation can be obtained.

Similarly, education has long been an important component of development policy, and there is solid evidence that the lack of a critical mass of knowledge, skill, and collective education is almost universally implicated in persistent poverty. The highest level of education achieved by the head of the household is the single education indicator most often used in household survey-based poverty assessments and in socioeconomic profiling. This indicator does not tell analysts much about the overall education status of other members of the household or anything about the intra-household bias in access to education. Data on school drop-outs, teacher/pupil ratios, and expenditures per child are readily available from the ministry, but sometimes not by gender at lower level administrative localities such as districts. Linking such data to household-level data poses a major challenge to data analysts. This handbook highlights this point when discussing in the subsequent sections of this chapter the problems of reconciling aggregate macro data and micro indicators.

Policy-related data on the education and health of the population are compiled by the state through its responsible line ministries. Such information is collected in the performance of the standard routine administrative and supervisory functions of all bureaucracies and forms part of a regular reporting system. This official responsibility extends to the supervisory oversight of both public and private educational and health institutions and is designed to demonstrate that the ministries concerned are carrying out their duties responsibly in accordance with their defined mandate.

Apart from their specific reporting responsibilities, ministries and their departments are also subject to routine audits. These audits review how official funds are spent and consider “defined activity” or “performance” criteria. Such measures will usually include indicators like “number of students enrolled,” “number of people registered on a doctors list,” and “outpatients treated in hospitals.” What is reported often does not line up with the data collected in the census because of matters of coverage, timing, scope and content.

Questions posed in these respective inquiries generally relate to different objectives, issues, and conditions. The number of pupils officially reported by the education ministry as being currently enrolled in a country or region at the beginning of a particular school year or term will not tally with the numbers declared to be “receiving education” at the time of the census, even when allowing for cohort adjustments. There is a large number of practical, psychological, social, and even economic reasons for this. The numbers will also rarely correspond with the scope and coverage of education data obtained from household surveys. Similar problems exist in administrative files relating to such matters as crime, particularly where data are separately reported by the police and by households. In the same way, information relating to public health, water supplies,⁴¹ solid waste disposal and refuse collection, telephone connections, and electricity supply is usually generated by the providers. Information on use is less comprehensive.

⁴¹ For example, the number of water connections does not imply that piped water is always available.

It is frequently difficult to account for all discrepancies in data drawn from different sources, and this may have something to do with the essentially unquantifiable “motivational” and “incentive” factors that affect how institutions report their information.

C. Civil registration systems and electoral registers

Civil registration lists can complement population census records and are often used to compile the annual updates of census records. Some systems go well beyond the customary continuous recording of births and deaths by nationality of the parents and location of the event. This information can be supplemented with the vital records of health departments and by migration, naturalization and visitor data that is usually compiled by one or more different agencies. Use of such data to give more detailed small area population estimates is limited to the extent that international and internal migration movements are poorly reported and information about permanent place of abode remains unreliable. Nevertheless, basic systems are widely used to compile the age-specific mortality rates, fertility and reproduction rates, and life expectancy estimates that are crucial to understanding vital events and population dynamics. These data are essential for the effective planning of national and regional health and education programs, many of which will be targeted towards the more disadvantaged groups in society.

In many developing countries, however, the International Association of Official Statisticians [IAOS, a branch of the ISI] has made note of complaints that registration

data are incomplete and regularly reveal evidence of significant under-reporting, especially of vital events in the rural areas and remoter regions. Where countries maintain national identity systems, the quality of recorded data may be more current and reliable. But it may also be incomplete as a register of the total population if non-indigenous and recent migrant groups are treated separately. Other common civil registration systems include electoral registers that provide location specific listings of all adult citizens eligible to vote. Some of the persons listed may no longer be present in the area, and certain residents will not be included because their residency does not permit them to vote. While providing accurate address information, the list will clearly exclude all those under the voting age.

Perhaps more relevant and useful databanks are the various tax registration systems, the most important of which is the inland revenue income tax data pertaining to individuals. The most obvious problem here is that these lists--even if they were to be made publicly available--would leave out the vast majority of poor individuals and their households. In a consolidated form --which is the most likely format in which such personal data might be published--the information might be useful only in reflecting the broad shape of the overall income inequality in the community and in showing up income disparities by location.

However, it is unlikely to reveal much about poverty status. Information collected by the tax authorities is notoriously defective and respondents invariably try to conceal

the true extent of their income. This is especially the case where there are many self-employed persons among the economically active population and many others working on the land. Furthermore, where there is a thriving level of informal cash-based economic activity in urban areas, there will also be significant under-recording of incomes. Users are thus aware of the lack of useful registers for dealing with certain more acute social issues, and many know that those which are available are frequently incomplete and unreliable data sources. More important, proliferation of official lists may reflect the lack of co-ordination between the statistical system and administrative management.

D. Core Welfare Indicators Questionnaire [CWIQ]

The “Core Welfare Indicators Questionnaire” (CWIQ), developed in the World Bank, is a good example of a well-established standard survey procedure that began with listing characteristics and classifying attributes rather than measuring variables. The methodology is a cross between quantitative and qualitative survey techniques that recognizes the significant link between household asset “ownership” [in an inclusive sense to incorporate access to public facilities and services] and levels of living. The approach uses electronic scanning techniques to capture information not only on the assets and background living conditions of households but also, in recent surveys, on the current availability of community services.

The CWIQ was designed initially to provide a reasonably cheap, quick, and comprehensive method for capturing the status and main characteristics of households and to determine their access to personal assets and physical facilities that could help raise their basic living standards. The approach has obvious relevance to features of social exclusion. The latest surveys have begun to draw attention to the significance of “civil society” to the maintenance of household well-being within the community. The CWIQ uniquely combines micro characteristics at the household level with the virtues of a simple “contextual” survey, helping to provide details on matters that distinguish one community and its household living standards from another. The procedure has been progressively developed so that it now has the capacity, in the shape of the CWIQ “Plus”, to capture not only the different attributes of households but also certain quantitative characteristics, including some of their principal expenditures.

In Tanzania and, as currently planned, in Sudan, the CWIQ approach has been also applied to a wider community context. A version has also been used in Uganda to evaluate and monitor development programs. Users are recognizing that implementing a large national survey (that offers extensive coverage of local communities) with a complementary household module is an effective way to identify household poverty in various locations. The approach can also reveal the potential vulnerability of other households and their risk of becoming poor.

There are several reasons why the above broader based CWIQ approach may prove valuable and evoke wider interest, especially in poorer countries. First, the greater

amount of relevant information relating to communities has strengthened the capacity of the decision-makers to allocate social funds to various community projects and to do so on a more meaningful and effective basis. Although, in many instances, both advantaged and disadvantaged households will stand to benefit, a number of projects can be designed specifically to help distinct population sub-groups such as women or youth groups.

Second, the CWIQ can help develop policy that recognizes various local needs, including an ante-natal clinic, secondary educational services, and agricultural extension services,, and identifies substandard services. On the surface, the CWIQ may not be able to say too much about individual entitlements and the varying degree of access of different households to different public facilities and services, often due to intangible institutional and social reasons. But the use and frequency of utilization of these community assets can serve both as a proxy for satisfaction, such as in the case of a library, and as a way to assess need, as in the example of a health clinic or playschool.

Developed as community level studies, the CWIQs are able to identify the various features found in particular societies, communities, and village groups that reveal differences in income and poverty levels. As with household studies of the same genre, it is assumed these differences are related to the possession of useful socio-economic assets valued both by households and the community--such as a hall to meet, a market place, a school, a church, a wharf, and warehouse. Assets held by the households themselves, such as bicycles, cooking pots, radios and TVs [to receive information], and telephones,

help improve household living standards and access to the community. This expanded focus of interest has coincided with an emerging belief in the importance of “civil society” in raising the overall living standards of people and enhancing their development prospects.

The CWIQ “Plus” initiative collects data on more quantifiable aspects of household behavior, including consumption and the explicit expenditure patterns of households. In the beginning, adoption of a simple electronic scanning process as the technical root of the CWIQ’s evaluation procedures meant the collection of actual numbers was not possible. But as appropriate software has become available, it is now possible to collate summary quantitative data. These can be compiled to provide reasonably accurate information on outlays and values. This facilitates relevant analysis of the community context of poverty as related to consumption patterns of households and individuals. In this broader approach, some useful “explanatory” information may be obtained. As a survey instrument, the CWIQ Plus is not able to offer everything collected by a standard household survey. But it has the potential of gathering data more quickly and providing a broader perspective and coverage for less cost, and the means to replicate similar studies.

Moreover, information collected in a community enhanced CWIQ may reflect the overall quality of comparative local and national governance and say something about households’ sense of belonging and feeling of security across various parts of the

country. Although the links are often intangible, the satisfaction of core needs is undoubtedly related in part to the presence of social capital. Careful development of this survey 'model' can clearly help in the planning of public operations and in improving the delivery of government services. This augurs well for the progressive strengthening of "civil society" and the underpinning of mutually supportive social mechanisms.

E. Special enquiries and official commissions

From time to time a government may set up a special commission to investigate some identified problem in society such as the employment of child labor, prevalence of AIDS, double payment of teacher salaries, and misuse of health funds. These inquiries invariably call for specific evidence to be compiled to enable a commission to deliberate better on the matter under investigation.

Commissions of inquiry may also be established when there is a natural disaster or collapse of a major industrial or agricultural activity on which many people depend. Wage boards and judicial reviews of contractual arrangements involving payment between peasant farmers and agro-processing companies or mineworkers and their employers, for example, also fall into this category. In a number of instances, statutory obligations to provide basic rations to people or to distribute certain social entitlements will lead to the compilation of relevant and useful data about poverty. All these studies can serve as relevant sources of primary income data and may provide some indication of the main means of support available to families and basic information about their customary household expenditure outlays.

In evaluating programs and projects and in monitoring their progress, international agencies (e.g., The World Bank and the separate international branches and specialized agencies of the United Nations) will frequently conduct their own follow-up surveys. Since 1999, both quantitative and qualitative participatory methods have been increasingly utilized by The World Bank to assess the impact of its sector specific development projects on poverty. Both household and community questionnaires have become key instruments of inquiry. Some of these surveys, especially those that identify the core control groups and define the “acceptable” standards against which a basic judgement about progress can be made, provide information directly useful to the wider quest for poverty data.

6.7.2 Qualitative Studies and Participatory Assessments

A. Understanding the story behind the numbers

A better understanding of how people survive living under adverse conditions can be obtained from in-depth qualitative studies. These inquiries are usually non-official and often of a one-off nature. For the most part, their value depends on expert assessment and analysis of fieldwork. These studies may be subjective, reflecting a consensus of personal views and assessments of respondents themselves [whom, it might be argued, are best placed to describe their own condition]. Or they may represent the unique testimony of an individual key informant.

The qualitative approach covers such important issues as identification of

perceived and actual constraints and obstacles that impede the betterment of peoples' lives. Resorting to qualitative and subjective perspectives, including participatory assessments by the poor themselves, helps to identify many of the undisclosed features of poverty. It allows analysts to relate these factors to the social and cultural environment and observed conditions in which poor households survive. Subjective surveys, in particular, permit researchers to reach out and take note of the "silent voices" that can give them a better insight into why certain households engage in various activities, how household members behave, what their overall coping strategies might be, and how households and their members arrange their specific mechanisms to ensure their daily survival. Observed responses of poor people to given economic situations and strategic initiatives, or the lack of them, can be used to guide future policy and to identify groups at most risk of not making progress.

Qualitative assessments are very useful survey instruments for identifying the characteristics of the poor and the extent of their deprivation. In contrast with the quantitative methods and conventional monetary approaches favored by officials and used in most household based surveys, qualitative methods are less concerned with mathematical precision. The crucial issue, however, is not whether quantification is possible but whether the problems faced by poor people and the level of an individual's or household's standard of living can be reduced to a simple quantitative dimension and still remain significant (Shaffer,1996).

Theoretical underpinnings of qualitative methods rest with a belief that they can shed more light on the diverse manifestations and dynamics of poverty, enabling analysts to explore the various possible links between the different factors assumed to influence actual as opposed to expected poverty outcomes. Key factors include intra-household transfers and gifts in kind, commonly linked to cultural, religious and behavioral attributes that are not comprehensively captured through conventional household inquiries.

B. Participatory Assessments

Rapid rural appraisal (RRA) methods, participatory rural appraisals (PRA), and participatory poverty assessments (PPA) have helped pioneer a wider acceptability of qualitative techniques by officials. They are described as a family of methods to “enable *rural* people to share, enhance, and analyze their knowledge of life and conditions, to plan and to act” (Chambers, 1994). The fundamental distinction between these methods is that RRA is a form of data collection by outsiders who then take the data away and analyze it, whereas PRA and PPA approaches have a more active participatory and empowering component, “meaning that outsiders are conveners, catalysts and facilitators who enable people to undertake and share their own investigations and analysis.” (See, Chambers 1994 for a review of participatory methodologies and tools.)

Participatory methods were designed initially as small-scale studies in various fields of social and economic development, and their application in poverty research has covered topics such as credit needs, seasonal fluctuations, service targeting for the poor,

non-agricultural income-earning opportunities for farm households, women and gender, and adult literacy. Participatory poverty assessments (PPA) were first undertaken in 1993 as part of the World Bank-supported country poverty assessments in Ghana and Zambia. Subsequently, they gained greater prominence in poverty research not only for conceptual reasons but also on empirical grounds.

Key distinctions between PPA and conventional approaches to poverty measurements, such as the monetary or the capability methods, can be found in the broader socio-economic definition of poverty exhibited in the former. In PPA studies the constituents of well-being are seen to be contextual-specific. They use less formal and more investigative data collection tools that permits a broader understanding of poverty within the local, economic, and political environment. In contrast with monetary measures of poverty, PPAs enable analysts to characterize poverty differently for specifically vulnerable socio-economic classes, such as women, AIDS orphans, single-crop farmers, and minority ethnic groups, whereas the social groupings are conventionally distinguished by poverty profiles obtained using traditional survey methods.

Self perception of poverty, which is a central element in PPA, however is undermined by its technical imprecision and unsuitability for comparative analysis. The question--whether a quantitative inquiry or a PPA is more reliable as an indicator of poverty and/or real living standards--has commanded serious attention in the literature. But the empirical evidence is not conclusive. As in the case of official survey methods,

there are a number of challenges to making the results operational, including overcoming problems related to the small size and specific focus group covered in the sample, its unrepresentative nature, and thus the ability to generalize findings to a wider universe.

Drawing meaningful conclusions is perhaps easier where common relationships and linkages need to be identified than when it is endorsing the accuracy of quantified survey findings and their comparability. Further, subjectivity inherent in “own” perceptions of poverty intrinsically weakens the essential feature of the PPA method. People’s personal assessments of their own condition will inevitably be biased by a lack of objectivity and may provide only limited information about the poor (Laderchi et al. 2003). More meaningful analysis, however, has been achieved by combining quantitative and qualitative methods rather than from comparing and contrasting their results.

C. Qualitative methods

Despite wide recognition of the relevance and usefulness of data obtained from qualitative methods for assessing individual welfare, and more broadly, for identifying aspects of welfare omitted in the standard poverty measure, qualitative techniques are still not widely accepted by officials. Moreover, they are not fully integrated with the conventional income-based poverty assessments. Because qualitative techniques rely on group interviews and approach subjects in a non-specific way and make widespread use of less formal methods of questioning, many question their results.

In contrast, quantitative approaches place more emphasis on objective data collection through household interviews and written questionnaires. The latter demand, however, a certain minimal level of literacy and numeracy as well as formal and informal record keeping skills some poor respondents may not possess. The method of enumeration by officials also frightens some respondents. Participatory techniques, while giving a particular emphasis to personal subjective perceptions, are often claimed by those social anthropologists and other analysts who conduct them to be incompatible with more traditional poverty assessments, whether these are qualitative or quantitative. However, they do reflect what people really feel and experience.

Given the scarcity of resources, qualitative and quantitative poverty studies frequently compete with one another for funds, failing to complement each other's investigative value. There are a few examples, however, where official comparisons of poverty profiles combining both subjective and objective findings have been successfully undertaken. Other studies have also been able to incorporate PPA results into traditional poverty assessments (World Bank, 1994, 1995a, 1995b) and, increasingly, World Bank poverty assessments now include a participatory component within a traditional survey-based poverty enquiry to amplify more intangible issues.

There may be broader advantages to combining the two methods in the earlier interview phase, for example, by asking subjective and qualitative question in the same survey (as has been recently implemented in Senegal). Not only will the traditional

poverty assessments be stronger, but also new facets of the problem could be opened up by in-depth probing using direct inquiry. A multi-dimensional approach to poverty analysis comprising a review of expenditures on market goods--along with non-income measures of access to non-markets goods and indicators of intra-household distribution--would be informative. (See Ravallion, 1994, and Carvalho and White, 1996 for a review of methods for combining qualitative and quantitative data.)

Qualitative surveys are usually undertaken to explain, rather than to simply describe, human behavior,--identifying what issues matter to people. These surveys tend to be based on prescribed and pre-selected [sometimes with defined quotas] non-probability samples of particular population groups. Survey outcomes may then be employed to highlight those questions considered important and worthy of further investigation in a subsequent national survey. The nature of the responses can also be used to determine the appropriate strata for refining the operational conduct of a more comprehensive inquiry.

From a statistical perspective, such techniques can reduce overall sampling error and identify cost-saving strategies in planning larger surveys. Primarily, however, qualitative methods are used to examine a more limited number of subjects in depth. They explore relational patterns and identities, examining the existence of various attributes rather than determining exact measurement of variables. A wide variety of survey techniques, consequently, can fall under the general description of qualitative.

Users can then approach relevant focus groups to guide the direction of studies towards the gathering of data about certain disadvantaged sections of the population. People who are “engaged” in an issue are usually better informed about its nature. It is often possible to get a closer consensus of the problems encountered by asking people directly rather than surveying a randomly selected section of the population. All these approaches tend to draw attention to the broad common relationships rather than measuring the magnitude of any assumed effects.

One of the main advantages of qualitative surveys arises from their in-depth and often open probing into issues that observers do not notice at first sight, but which respondents believe are important. When carried out by well-trained and qualified analysts who understand the objectives of the study and identify with the purpose of the inquiry, the process can prove quite valuable. Enumeration methods may well be unstructured, but the range of topics covered and questions to be raised should conform to a predetermined list of all the key concerns on which information must be elicited. The smaller non-sampling error achieved by this approach has to be balanced against the unknown and incalculable sampling error involved in the employment of higher quality investigative techniques at the respondent level.

This matters little if there is no variable that needs to be quantified. The survey then simply records the presence or absence of a characteristic. But sometimes it is desirable to have a sense of magnitude and to know if a problem is growing [and at what

rate], and how important it is to those affected. Then there is a need for a calibrated scale or marker against which to classify the interview outcomes. In general, survey technicians rarely resort to qualitative methods to find out about actual outlays and incomes. Further, they are reluctant to adopt them in inquiries that require quantification of variables and a precise comparison of magnitudes because of the potential for confusion and ambiguity of responses.

D. Other non-quantitative methods

A number of other related approaches, distinguished below, can be adopted to gain further insight into how people themselves perceive their state of poverty.

i. Sensory techniques

Sensory approaches go beyond customary subjective assessments and aim to get some idea of the strength of feeling people have about their circumstances. Sensory studies may not always portray exactly what the poor themselves think. This is because, in most cases, a translator interprets respondents' declared thoughts about prevailing conditions and opportunities. These survey specialists are responsible for recording respondent voices and sentiments, and they may not always capture the nuances of the views expressed as precisely as are obtained from grass roots interviews. More often than not, survey intermediaries may be more concerned about testing and justifying preset hypotheses, showing conditions of poverty in a particular light, to provoke direct action, official or otherwise, and alleviate suffering.

More formal investigators are people with specialized knowledge trained to know what they should be looking for when questioning respondents. Often, the people who interview focus groups are familiar with local problems (i.e., disadvantage, access, poverty and vulnerability) and know which families or groups are especially involved or at risk. In regions where it is difficult and expensive to conduct a scientific survey, or where the potential respondents are vocal but otherwise illiterate, agencies have sometimes engaged trained enumerators and surveyors to give voice to the unheard concerns of the poor. In some cases, this might mean meeting with local volunteer associations, women's groups, smallholders and non-tenured farmers. and casual laborers.

A classic study of this kind was the World Bank Report compiled by Deepa Narayan entitled "Voices of the Poor." Using a similar method, the UN Intellectual History Project came up with a different type of study. "UN Voices" interviewed leaders, decision-makers, and opinion formers. It relied on the observations and personal experiences of leading UN civil servants and consultants to define the nature of social and economic development and the international decisions made to influence it. This "touchy-feely" method of inquiry, as it has sometimes been irreverently referred to, is not popular with most statisticians simply because it is not robust and cannot be readily replicated to generate similar results. It is, by their assessment, too loose and subjective and too exposed to the varying intensity of feeling of respondents. This may be aggravated if all respondents belong to the same group and are interviewed together at the same time because, in this situation, there will be a distinct tendency to reinforce or reiterate what others have already said, which emphasizes their solidarity.

ii. Rapid appraisals and expert assessments

Rapid rural appraisals and participatory rural appraisals are closely associated with the name of Professor Robert Chambers and his colleagues at the Institute of Development Studies, such as Professor Mick Moore [see above]. In the mid-1970s, their research methods went beyond simple arms-length studies with those deemed to be poor to involve the poor directly in assessments. Initially, these researchers were primarily concerned with identifying local land use problems, land tenure issues, agricultural production, and marketing conditions. They wanted to identify the constraints facing farmers anxious to raise their levels of output and to improve their families' daily living conditions.

Their studies introduced more direct questions about what smallholders believed made people chronically poor. They also focused on security and crop storage, water rights, casual labor conditions, agricultural laborers' pay, and the extent of unpaid family employment on the farm. All of these issues could be connected to the varying states of poverty households experienced at different times in the year, as they themselves reported and as was manifested in the observed low-income living conditions of these households.

Their inquiry methods produced quick assessments and were validated by the large number of poor rural dwellers known to be in similar situations. But they rarely attempted to use the procedure to compile exact measures. [Chambers and others conducted their research extensively throughout South Asia.]

Although heavily criticized by statistical purists, such unstructured, informal and sometimes *ad hoc* methods of inquiry were adopted because this approach is both cheap and quick. Elsewhere, the value of procedures that bring the main actors into the evaluation process was given a particular boost by the work of Casley, Lury and Verma. These survey specialists discovered, from a separate study of cash crop output which farmers themselves reported, that most were usually perfectly capable of predicting quite accurately the harvest outcome of their crops, despite their limited numeracy and literacy.

The validity of this method was proved in the case where farmers were cultivating single cash crops on separate plots of land. Indeed, much to the chagrin of the FAO, the results of usable harvested output obtained from this direct inquiry approach were found to be, when tested against the actually harvested crop cuts, more accurate than the recommended conventional, often more expensive and statistically sophisticated crop cutting methods employed in sample plot surveys by FAO and other agencies. In other words, their study underlined the point that farmers could be trusted to identify those obstacles that prevented them from raising their income levels and gaining a better standard of living.

iii. Related Indicator Series

In the mid-1990s, the World Bank, in a policy shift away from growth that accorded greater emphasis to poverty reduction, launched several initiatives aimed at gaining a better understanding of the nature of poverty and why it remained a problem in

so many areas. Among several studies, it began regular publication of the Social Indicators of Development report, followed by the annual World Development Indicators.

The former took a long-term perspective of social change which, it was assumed, occurred quite slowly. Three separate periods of review for the same selected indicators pertaining to social conditions were compiled:

- an historical long-term view that looked at circumstances as they were 15-25 years ago;
- a medium-term view with a more recent 5-15 year past perspective; and
- the “present,” covering the most recently reported data from within the past 5 years.

Indicator methods in general have been likened to the approach taken by a doctor who examines a child for signs of a disease like chicken pox. The doctor knows what to look for and is aware of the common characteristics of chicken pox. By thoroughly examining the child to see whether the symptoms are present or not, he or she can then discern whether the child is suffering from the disease and assess the possibility that others may contact it. The progress and pattern of the disease can also be predicted.

iv. Community-level studies

Studies that look at communities are varied and selective. But they tend to be mostly directed to specific issues and are invariably micro in nature. Some will be carried out by the local community itself or by local authorities anxious to introduce

improvements and changes. Such studies may be conducted in connection with questions of re-housing or the construction of a new road. Other inquiries may have as their core focus a definite social, communal or anthropological phenomenon. A significant number will be carried out, not by officials, but by non-government organizations [NGOs] and academics.

In some surveys, a complete listing of a community's assets and range of services will be compiled. But for many non-official agencies the main concern will be to gather only data relevant to their given organizational and operational mandate. This may entail exploring the relationships that exists between different groups in a society and noting the dependency of families on specific activities and services, like a bus or ferry service. In the ultimate analysis, as with government agencies, the objective of NGO groups in compiling such data is to meet obligations to report on the outcome of their work. This is usually to reassure sponsors and supporters that the funds allocated to the agency have been well spent on appropriate actions and have facilitated distribution of goods and services at the community level to targeted groups and households

v. Other survey approaches and subjective methods

From time to time, topical inquiries covered by so-called "barometric" studies, such as the "social weather stations" approach followed in the Philippines, may be found useful in an advocacy and policy context. In a similar vein, psychometric studies using pre-defined [ordinal] scaling techniques may measure the intensity of feelings of people affected by a particular situation, such as poor housing and public sanitation or some other state of deprivation in a given locality. This would help set social priorities. The

approach is sometimes used to ascertain some idea about the amount of income poor people perceive as sufficient to lift them out of their poverty or state of homelessness.

6.7.3 National Accounts

This section reviews conceptual and empirical differences between household data sources and the national accounts to help determine adjustments that are necessary to encourage countries to reconcile statistical variances. It is recommended, however, that sound practices in national accounts should take the consumption data from household survey as point of departure for estimating household final consumption.

National accounts provide the detailed and integrated framework for collating disparate data, testing their validity against accepted standards and definitions (concepts) and against other related information (empirical evidence). Many survey and non-survey sources of information identified above are used selectively to compile a country's national accounts. Methodology, standards, and classification guidelines are derived from the 1993 System of National Accounts (SNA93) adopted by all countries.

While data collection and statistical collation procedures may differ among countries, the SNA sets the criteria for inter-temporal consistency and international comparability. This enables analysts to take a wider perspective on the nature of poverty in relation to all household sector activities most relevant in a national context and most comparable in an international setting. In addition, having estimates of some of the core

parameters embodied in the national accounts is important for relating the prevalence of poverty to the fundamental issues of national and global inequality (Dikhanov and Ward, 1999 and 2001).

International debate on poverty measurement has raised the question of whether the metric should be based either on national accounts or household surveys, given the differences in assessments of household expenditures. Here, the question about making a choice between the sources is misplaced, failing to acknowledge adjustments necessary to address the differences between national accounts and household surveys.

Key differences in the concepts, definitions, and coverage indicates that data from the two sources would not be in sync even if all errors and omissions were removed. Karshenas thinks “national accounts-based estimates appear to be more plausible [than] other non-monetary indicators of poverty.” Ravallion (2003 a), in contrast, argues that whereas household surveys may underestimate consumption due to the underreporting or non-response of the high-income households, their results may produce a relatively more accurate measure of poverty [than do national accounts]. And Deaton (2003 b) argues that national accounts are not designed to measure the individual welfare; their role is to track money and not people. He believes surveys produce more accurate direct measures of the living standards of the poor. Still, “if two data sources disagree, and we have no reason to favor one over the other,” Deaton concludes that “we should combine them to make a better estimate.”

Neither household consumption nor household income data derived from a household survey are the same as the corresponding household aggregates in the national accounts. Their conceptual and empirical differences should be considered carefully and interpreted properly. Need to harmonize these two main data sources recognizes the objective to enrich national and international poverty analysis with poverty dynamics in a macroeconomic context. National accounts reflect the level and change in the relationships of households with other entities in the global economy, i.e., government and enterprises. Comparability between household surveys and national accounts for household-consumption expenditures is discussed. The focus is on estimates of household-consumption expenditure and the implications for poverty measurement as indicators of well-being. The types of adjustments that need to be undertaken to reconcile the conceptual and empirical differences between household surveys and national accounts based estimates of household-consumption expenditures are then presented.

A. Comparability between national accounts and household survey estimate of final household consumption and the concept of household actual final consumption

The system of National Accounts 1993 (SNA93), a global statistical standard for the compilation of national accounts, measures macroeconomic performance and development of an economic territory (e.g., country) in an internationally comparable manner. Important components of the accounts reported by a large number of countries include household-consumption expenditure and household income aggregates. Long-time series of national accounts aggregates, such as gross domestic product (GDP), gross national income (GNI), and household-consumption expenditure and their per capita equivalents.

The 1993 SNA measures household activities by their expenditures on goods and services and acquisition of fixed assets in the form of dwellings and valuables. Quantitatively, household final consumption expenditure is one of the main components of GDP, calculated by the expenditure approach. It may take place in the domestic territory or abroad and it consists of the expenditure, including imputed expenditure of goods and services, including those sold at prices that are not economically significant.

Household final consumption expenditure includes the following main items:

- Purchase of goods and services;
- Goods produced for own final consumption;
- Goods and services acquired in barter transactions;
- Financial intermediation services indirectly measured (FISIM);
- Insurance and pension fund services;
- Services of owner-occupied dwellings; and
- Goods and services received as income in kind.

Independent, comprehensive estimates of household final consumption expenditures are particularly important for the compilation of sound national accounts and are a useful tool for purposes of social policy. However, the international review of national accounts practices indicates that in many developing countries, due to unavailability of appropriate data sources, the aggregate household-consumption expenditure is derived as a residual between the gross domestic product (calculated from the production approach) and other estimated expenditure aggregates, such as government final consumption, gross fixed capital formation and exports, and imports of goods and services. This residual method of estimating household final consumption

expenditure incorporates consumption expenditure of non-profit institutions and usual stock changes, as well as errors and inaccuracies in the other measures. Household-consumption expenditures estimated in this way cannot provide comprehensive information either on the total or the pattern of individual household consumption.

In many countries of limited statistical capacity, apart from the reason advanced above, there is no separate recording of the activities of Non-Profit Institutions Serving Households (NPISHs). Their final consumption expenditure is bundled together with household final consumption expenditure in one single consumption expenditure aggregate. Services provided by the NPISHs are deemed to be individual like all consumption expenditures of households. Separate recording of NPISHs, a particularly important sector in low-income countries, is recommended by the 1993 SNA for methodological, comparability, and policy reasons.

Reconciliation between the two measurements of household-consumption expenditure should take consumption data of a household survey as a point of departure. Subsequently, adjustments should be introduced to transform household survey data on household-consumption expenditure to a national accounts basis. Categorized as conceptual and empirical adjustments, they are presented in Subsections B and C below.

Final consumption takes place in three institutional sectors: – the household sector, the NPISHs sector, and the general government sector. National accounts look at the final consumption from two perspectives – that of consumption expenditure and that of actual consumption. The first perspective refers to the units that incur the expenditures,

while the second perspective shows who benefits by the consumption.

The concept of *actual household final consumption* measures both household final consumption expenditure and individual consumption paid for by the government and NPISHs – the so-called social transfers in kind (see endnotes for a specific discussion). Consumption expenditures by government and NPISHs are divided into two categories: those benefiting individual households (individual consumption) and those benefiting the community as a whole or large sections of the community (collective consumption) (SNA, para.9.80-9.86). All services provided by NPISHs are treated as individual, even though some of them may have a collective nature and serve institutions other than households.

By convention, NPISHs have no actual final consumption. Actual consumption of general government is measured by the value of government collective consumption only (see Table 1). Estimation methods of individual consumption provided by government and NPISHs, and collective consumption provided by government, correspond with the estimation methods used to measure their output. In other words, they are based on the reported cost of government units and the NPISHs of providing and delivering the goods and services in question to households.

Table 1: Relationship between final consumption expenditure and actual final consumption of households ⁴²

| | Sector making expenditure | | | Actual final consumption |
|-------------------------|--|--------------------------------------|--|--|
| | General Government | NPISHs | Households | |
| Individual consumption | X (= Social transfers in kind) | X (= Social transfers in kind) | X | Households actual individual final consumption |
| Collective consumption | X | Always 0 | Always 0 | Government actual collective final consumption |
| Total final consumption | Government final consumption expenditure | NPISHs final consumption expenditure | Households final consumption expenditure | Actual final consumption = Total final consumption expenditure |

The first perspective refers to the units that incur the expenditures, while the second perspective shows who benefits by the consumption.

Actual final consumption concept captures better what is consumed by a given household and reflects the activities of non-profit institutions serving households and different social mechanisms and policies of governments functioning in countries. The arrangements about how many health or educational services are provided by government may change over time and are certainly different between countries.

Inclusion of social transfers in kind clearly contributes to enhancement of

⁴² European System of Accounts, 1995

international comparability of household final consumption measures across countries and over different time periods. However, it poses problems for integrating such aggregate estimates of non-market goods and services with poverty measures obtained from household surveys where the equivalent cost or value of such benefits cannot be readily determined at the individual household level.

Table 2 presents the concept of actual household final consumption based on a harmonized approach to household surveys. It indicates the type of information that should be collected from a household survey and the adjustments necessary to make data compatible with actual household final consumption in national accounts.

Table 2: National accounts concept of actual household final consumption within a harmonized approach to household survey

| | Components of actual household final consumption | Estimation method |
|---|---|---|
| + | Goods and services purchased for final consumption | Should be surveyed |
| + | Goods and services bartered for consumption | Should be surveyed |
| + | Current transfers in kind other than social transfers in kind | Should be surveyed |
| + | Goods produced for own final consumption | Should be surveyed along with household production through unincorporated enterprises |
| + | Services of owner-occupied dwellings and imputed rent | Should be surveyed and adjusted through NA |
| + | Goods and services provided by employers as income in kind | Should be surveyed and adjusted through NA |
| = | Household Final Consumption Expenditures (from HBS) | |
| + | Financial intermediation services indirectly measured (FISIM) | Adjusted through NA |
| + | Insurance and pension funds service charges | Adjusted through NA |
| = | Household Final Consumption Expenditures (in NA) | |
| + | Social transfers in kind from government and NPISHs | Adjusted through NA from information on government and NPISHs data |
| = | Actual household final consumption | |

B. Conceptual adjustments of household final consumption expenditure between household budget survey and national accounts

Conventional form of household budget survey (HBS) conducted by national statistical offices is an important source for national accounts as it provides information on household consumption at the lowest detailed level. This type of survey, as well as the other varieties of household surveys like Living Standard Measurement Survey, can furnish data on almost all the items listed above, except FISIM and insurance service charges. Compilation of a comprehensive estimate of household consumption requires a combination of different data sources and methods to obtain the “best estimate” for each consumption item. Simple aggregates from HBS data cannot be directly used for national accounts estimates of household final consumption expenditure even after verification of the quality of those data. It is necessary to make adjustments to transform HBS data into corresponding estimates for national accounts purposes. These conceptual adjustments are accomplished mainly through the commodity flow approach as described and schematically presented in Diagram 1 below.

i. Adjustments for differences in definitions and concepts

Besides monetary expenditures of households, the comprehensive estimate of household consumption requires some adjustments to account for certain imputed expenditures on goods or services that households produce for themselves. These are treated as expenditures because households incur costs in their production. Listed below are imputed household expenditures recognized in the 1993 SNA.

- Household production for own final consumption - According to the 1993 SNA recommendations, the production boundary includes goods and services created

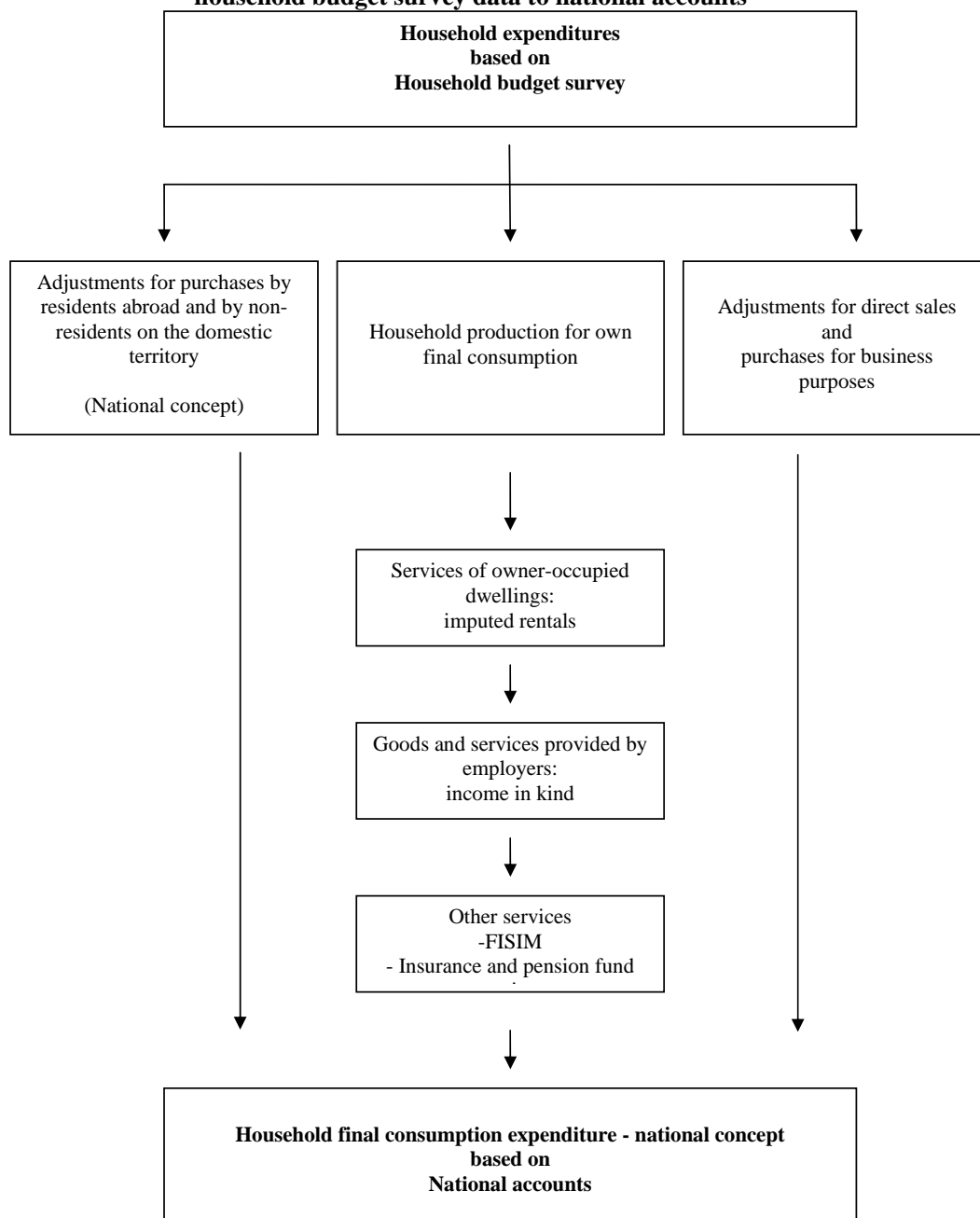
for own final consumption (see endnotes for a specific discussion), except domestic and personal services produced by members of households for consumption by themselves or other members of the same household. The 1993 SNA further stipulates (SNA, para. 6.25) that when the amount of a good produced within households is believed to be quantitatively important in relation to the total supply of that good in a country, its production should be recorded. For example, processed and consumed agricultural products by the households could account for a significant part of the household production for own final consumption. Processed products are classified as both output of unincorporated activities of households and household final consumption expenditure.

- Services of owner-occupied dwellings - Persons who own the dwelling in which they live are treated as owning unincorporated enterprises that produce housing services consumed by the households to which the owner belongs. Housing services produced are deemed to be equal in value to the rentals that would be paid on the market for accommodations of the same size, type and quality.
- Income in kind - This includes goods and services received by households as wages and salaries in kind from employers, such as free food, clothes, dwellings, and medical attention.
- Financial intermediation services - Indirectly measured (FISIM), these should include only the imputed service charges on the household uses of financial

intermediation services provided by banks, not the amount of interests paid or received. Financial intermediaries provide services for which no explicit charges are made. But they apply different rates of interest to borrowers and depositors. The value of FISIM is equal to the difference between interest received and interest paid by the financial intermediaries. In principal, FISIM should be allocated among all institutional sectors, using these services.

- Insurance and pension fund services - For each type of insurance considered, the gross premium consists of a service charge element and a residual element, which is a transfer to the technical reserves. This implicit service charge is the only part which should be recorded as a household final consumption expenditure. However, it can only be estimated from insurance companies' accounts. HBS can only record gross premiums at the individual level and categorize them in an analytically-useful manner.

Diagram 1: Conceptual adjustments of household final consumption from household budget survey data to national accounts



Besides these adjustments to the basic data of HBS to meet the household-consumption expenditure concept of national accounts, some additional conceptual issues requiring special treatment are worth mentioning.

- Hire purchases are recorded as purchases made by the households for the full value of the goods at the moment they take place.
- Lottery services are valued net of lottery winnings.
- Imported second-hand goods are treated in the way the newly purchased goods are treated. In case of trading between households, no transaction is recorded.
- Subscriptions, contributions, and dues paid by households to NPISHs (like trade unions and professional societies) are treated as other current transfers.

ii. Adjustment for direct sales and purchases for business purposes

The HBS has certain limitations as a comprehensive data source for estimating household expenditures. This does not imply that household surveys are not an appropriate tool for national accounts measurement of household consumption. But since the survey sample is usually small and the recall period short, the representativeness of the data may be questionable. It may not properly cover expenditures on some seasonally consumed items or on infrequently purchased durable goods. Evidence suggests that on these latter items, a short recall period provides more robust estimates. Furthermore, some household survey designs, gather information that does not separate expenditures related to unincorporated activities of households. Thus, the household expenditure may include not only spending for direct satisfaction of individual needs and wants, but also intermediate and capital expenditures on non-durables and durables incurred for business purposes.

The large share of goods (mainly agricultural) produced on own account and consumed within the same household (after some minor processing or used fresh) typically forms part of the consumption pattern of low-income households, especially in rural areas. When estimating private household-consumption expenditure, home-produced agricultural output for own consumption should be adjusted for both intermediate use (if they are used for feeding animals or seeds for future crops production) and for the share sold directly on the market or bartered between households. National accountants accord particular attention to these goods since they could be equally used for final or intermediate consumption. Costs of producing them are borne by the households themselves and might not be shown explicitly in the surveys. But they should be estimated and deducted so that the private household-consumption expenditure and the corresponding poverty measure will not be affected.

iii. Adjustments for purchases by residents abroad and non-residents residing in domestic territory

Household final consumption expenditure in the 1993 SNA refers to expenditures incurred by resident households within the economic territory and abroad. This approach means household final consumption expenditure should be adjusted to meet the recommended national concept of its recording, i.e., expenditures of resident households made abroad should be included while expenditures of non-resident households in the domestic territory should be excluded from the estimate. Monetary expenditures of non-residents are recorded as exports of goods and services on the revenue side of the Balance of Payments. Monetary expenditures of residents abroad are recorded on its expenditure

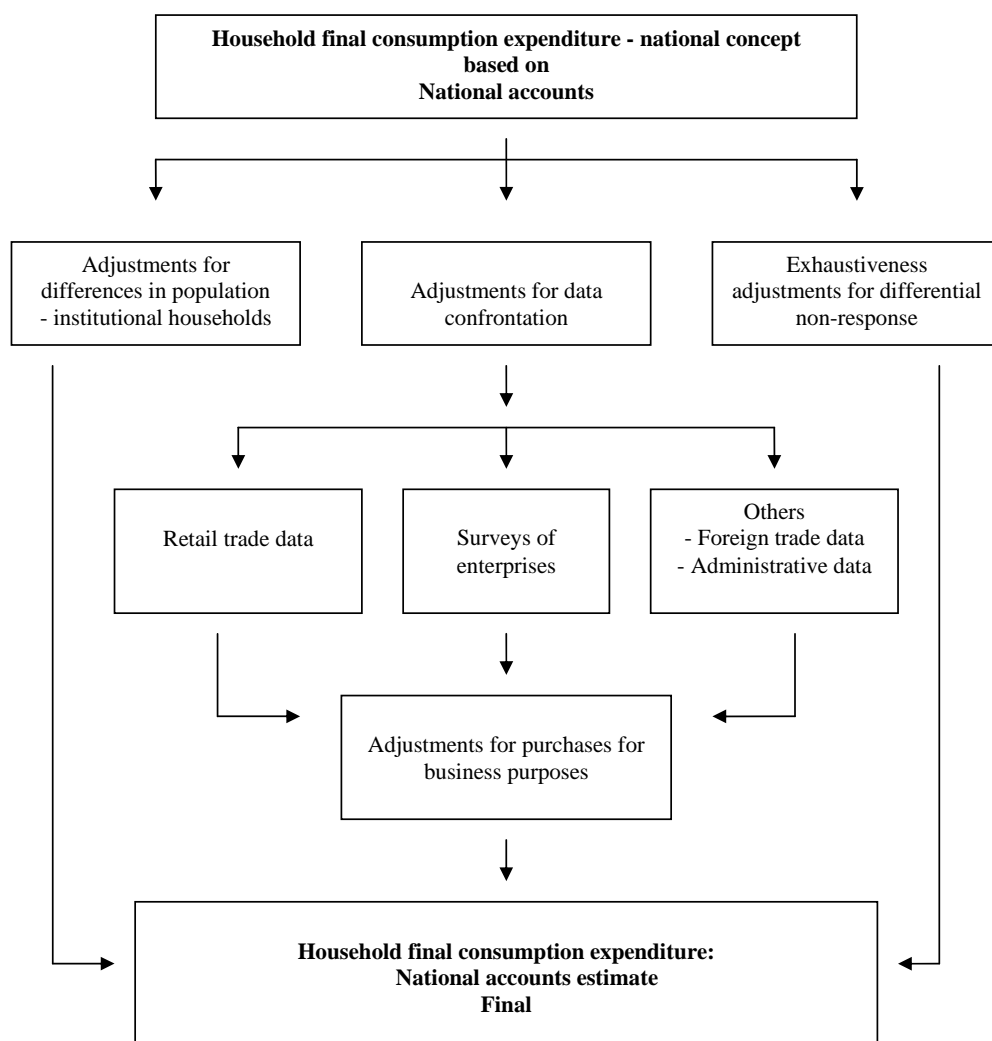
side as imports of goods and services.

In this context, persons going abroad for short periods (less than one year) and foreign students, patients, and diplomats and their dependants (irrespective of their duration of stay) are considered residents of their home countries; their consumption expenditures are part of their home economies. Implication of this rule is that where a low-income country is a tourist destination, extra care has to be taken in the national accounts to ensure foreign visitors' expenditures are not incorporated within the aggregate consumption estimates. This issue does not arise in household survey measures.

C. Empirical adjustments of household-consumption expenditure between household budget surveys and national accounts

In addition to the conceptual adjustments mentioned above, empirical adjustments are needed with respect to use of additional source data and adjustment for non-observed household activities, described in Diagram 2 below.

Diagram 2: Empirical adjustments of household-consumption expenditure between household budget surveys and national accounts



i. Adjustments for differences in population

Private household-consumption expenditure estimates are based on the *average annual population*, which includes persons residing in institutional households and residents living temporarily abroad. HBS results do not include consumption of

institutional households. National accounts usually provide supplementary estimates on consumption of persons living in institutions on the basis of information from additional data sources, by using administrative records of the institutions or, more implicitly, by using retail trade statistics used for adjusting the HBS data. This concerns mainly the consumption of individuals residing in old people's homes, institutions for the disabled and mentally ill, hospices, and inmates of prisons.

ii. Exhaustiveness adjustments and differential non-response rates

HBS data has certain weaknesses, including low representation of high-income households. Affluent households often refuse to participate in the survey. As a result, this leads to underestimates of household final consumption expenditure. Appropriate adjustments, relying on *grossing up* techniques, are undertaken to reflect higher-income household expenditures and to improve HBS results. Although this adjustment will not affect the consumption of the poor households, it will affect the distribution of consumption and the survey mean if the adjustments are imputed back into the survey data. Otherwise, if this adjustment is only made in the national accounts, significant differences between the survey and national accounts means in consumption will occur.

iii. Additional data sources used for measuring household final consumption expenditure

Data confrontation and reconciliation are at the core of national accounts compilation practice. They are not specific only to the estimation of private household consumption expenditure. In national accounts practice, HBS results are not used for estimation of every single item of expenditure. Rather, they are used selectively, based on their quality and the availability of alternative data sources. HBS results tend to underestimate expenditures on certain items, like alcohol, tobacco, and some personal services. For these reasons, in addition to HBS data, national accounts draw on retail

trade data and other statistics based primarily on tax, output, and import information when estimating these items. No one source can be considered entirely adequate. Final data for household final consumption expenditure are derived through the commodity-flow approach within a supply and use framework, i.e., detailed and specific adjustments are made at the lowest possible level of commodity use and aggregation. See Endnotes for further discussion of Retail Trade data and Surveys of Enterprises.

iv. Additional adjustments and considerations for exhaustiveness in using HBS data for national accounts purposes

Activities in the non-observed economy may play a very important role in determining both income and expenditure data of HBS and household final consumption expenditure estimates in the national accounts. Non-observed activities may give rise to imbalances in the basic data and resulting estimates, but conversely, such data imbalances may provide evidence of non-observed activities and the significance of the grey economy.

Households that are especially active in the informal economy and not fully reporting their incomes for tax or statistical purposes might form a disproportionate share of those who refuse to participate in the survey. Although it is impossible to determine the precise extent to which non-observed activities could affect consumption expenditures, many statistical offices are constantly making efforts to obtain better and more exhaustive estimates by applying the different approaches recommended in the OECD handbook, “Measuring the Non-Observed Economy.”

Frequency and timelines with which household surveys are carried out can have an important impact on the quality of HBS data. Continuous surveys provide time series

for individual items of expenditure and significantly enhance the quality of estimates. Timeliness means that HBS data can potentially be used as a prime source for national accounts purposes. Timeliness also increases the frequency in which data can be validated against other sources. These two characteristics are simultaneously required.

Unfortunately, many developing countries carry out a HBS at infrequent intervals, some that exceed five years. This necessitates implementation of extrapolation techniques and interpolation for the estimation of household final consumption expenditure for the years in between surveys. Considerations regarding the relatively short recall period of the household surveys and lengthy time for data processing play an important role in the quality and reliability of national accounts estimates.

In the absence of external support, financial constraints and real resource difficulties faced by many developing countries often compel them to adopt relatively small samples or to restrict a HBS to urban areas. Omission of rural household expenditures, which may reveal a different consumption pattern over a more limited set of goods and services, distort the ability of HBS data to represent the national condition, especially pertaining to consumption items. Generalization of sample data over the total population without any adjustments for coverage may result in misrepresentation of household final consumption expenditure.

6.8 Mapping Poverty Characteristics

6.8.1 Piecing the puzzle together

After gathering all forms of data from different sources and establishing a variety of definitions and classifications, it remains a challenge to overlay the various pieces of information using both proximate and exact matching techniques related to households. The socio-economic groups to which households belong and their links to specific places of habitation and location are rarely clear. This makes it difficult to meaningfully order all geographically-related data required to paint the more comprehensive picture decision-makers seek.

Researchers are increasingly attempting to link micro household or product data obtained from surveys and small area studies with a comprehensive database developed from a census. Compilation of this “map” requires “bootstrapping” and other data mining techniques. “Sound procedures” for interpolating and extrapolating figures and for generating retrospective estimates of benchmark data have to be put in place. Their validity will depend on the availability of relevant proxy series and other related indicators that are available. These indicators would normally include appropriate price, output, wage and employment series, and sales measures that suitably reflect the options and boundaries that constrain household decisions. Use of any series to move estimates in different directions from a given observation will suffer, however, from adoption of the structural fixity embedded in the benchmark reference. Accordingly, they may not be

able to capture the effect relative price changes have on product substitution and emerging consumption patterns as new products and services enter the market.

Pioneering work in this area of social mapping was conducted by the North West Regional Health Authority in England when it linked graphically where people lived [urban industrial locations and rural agricultural areas] with their assumed socio-economic status, individual occupational category, industry of employment and the incidence of various diseases and health indications. Apart from the intention to say something about social class, a pattern emerged showing clear relationships between different social groups and their exposure to environmental hazards. This highlighted individuals' risk of contracting certain medical ailments based on his or her occupation and living conditions, such as having open hearth coal fires in the house and type of diet.

A similar post-enumeration study in China linked income data from the latest household survey with data from the household-based First Agricultural Census of China [1997-1999] to determine levels of well-being across provinces. The aim was to see how income levels could be related to the type of economic and farming activity in those areas. The results showed that the traditional grain producers found mostly in the north and north-western provinces were especially vulnerable to low and fluctuating incomes, and that they had the fewest opportunities to bring in additional income from non-farm activities located in nearby urban areas. This adversely affected educational opportunities, diet of their children, and overall household nutrition.

Ideally, the data used to compile these more complete pictures should be based on the respective benchmark and survey information relating to the same households. But this approach would probably yield too few matches and result in significant bias. Thus, the characteristics of similar households engaged in different surveys or in different rounds of the same survey are usually combined to produce a more complete picture.

Problems of area sampling and following through in this process to achieve lower levels of disaggregation have been described in Chapters 5 and 7 in this handbook. Panel studies that track the activities and characteristics of the same households over a long period of time suffer from individual attrition and aging which alters the nature and composition of households (See Chapter 8 for more discussion on data). Surveys are compromised by their inability to sustain “like with like” comparison and to hold certain factors constant. To extract and uproot more detailed micro information embedded in national and other statistical aggregates (e.g., final household consumption expenditures and rural subsistence output) demands prior data about target groups and those at risk - and where these people can usually be found. But the results can cast new light on old problems.

6.8.2 Drawing on appropriate indicators

Different indicators exist in the public domain that can approximate information about the comparative status and economic level of households. Related structural indicators can help monitor changes in those levels. Synthetic and composite indices that measure national well-being [e.g., the UNDP Human Development Index] use common data and adopt recognized statistical procedures across each country to provide a wider perspective of the relative standing of various socio-economic groups and their progress.

Such index measures are not precise nor independently verifiable. They are best employed in making ordinal rather than cardinal assessments. Although appealing to no underlying social logic relevant to the scale transformations and aggregations carried out, there is a high correlation between many individual component indices depicting growth, levels of living and social progress. However, composite index numbers, while useful as broad indicators of overall well-being, do not rest on any inherent conceptual basis. They are therefore limited and not very robust for comparative inter-country and inter-temporal purposes.

Many composite measures, while superficially relating to the multiplicity of dimensions implicit in the inherent individual indices, have little relevant appeal to an intrinsic social or economic body of thought. There is little rationale, other than arithmetic transparency, to support the simple weighting procedures adopted for aggregating component indices. Some carefully constructed synthetic or composite

measures may provide, nevertheless, a reasonable indication as to the overall competence of governments and reflect the basic quality of governance and the efficacy of their social delivery mechanisms.

6.9 Conclusion

This chapter has looked at different data collection techniques and reviewed the possibility of combining various types of information from alternative sources to provide more insightful poverty assessments. Emphasis is on the need to fuse qualitative and subjective methods with the more traditional official baseline data collections. As part of a more comprehensive probability-based survey design, such approaches can be very informative in amplifying the raw numbers. Relying on data compiled for different purposes to paint a broader canvas, however, does not necessarily provide the specific information required for the range of poverty analysis many policy makers need. This is especially so when there is a desire to break down the information by provinces and regions. A better approach might be to devise a grand survey design that incorporates the potential to carry out planned studies based on evolving small area statistical estimation techniques.

Quite apart from the difficulty of linking and cross-validating information of various qualities from different sources, the proper choice of what data to bring to bear on

an issue poses questions of specificity versus consistency and representation versus comparability. These issues affect the choice of data necessary to monitor and evaluate the nature of poverty in a uniform and consistent manner. In this respect, when comparing values, price differences according to location and various types of outlet assume considerable significance. Such pricing questions must also be taken into account when considering how best to preserve the temporal and spatial consistency of poverty estimates and whether a special exercise is necessary to determine whether the poor are paying prices that are markedly different than those paid by the broader community.

Several general themes run through the above discussion.

- A large sample size for a household survey--necessary for a more detailed level of disaggregation and the simultaneous study of multiple topics--adds significantly to survey costs. It also leads to potentially large non-sampling errors. Survey managers are thus under pressure to find alternative and cheaper means 'to fill in the gaps.' If such methods also expand the knowledge about poverty and track changes in household and individual levels of living as they occur over time, so much the better.
- A more complete understanding of the complexity of poverty requires researchers to go beyond mere collection of income and expenditure numbers obtained in a conventional household survey, regardless of how representative it might be of the total population.

- It is important to strive for consistency across regions to allow for comparisons between different communities within each country. This is not only a matter of following the same data collection methodology but also ensuring that the measures themselves are relevant and consistent. In assessing living conditions of poor households, it's essential to know the actual physical quantities obtained (such as how much food they get) as well as the value of outlays they have made. Here again, this is not easy if prices for specific items vary significantly over time, as well as between different locations and outlets within a country.

Many country- and community-based poverty evaluation and monitoring systems lack consistency because they are launched by donors and external agencies possessing the necessary seed funds but lacking concern for a coordinated focus. They do not usually fit together in terms of their scope, timing and coverage. Many will have been implemented as one-off exercises or prove unsustainable for either technical or financial reasons.

The aims and methods of such surveys are quite different from the procedures observed by the national statistical office. Desire for basic coherence also requires the complete methodological consistency between countries. Achieving this standard is one of the main purposes of the present handbook.

Furthermore, long-term trend analysis within a given country requires adherence to the original benchmark and survey design wherever possible. This implies using the same array of indicators for updating trends, even if the procedure is less than optimal and if new methods are subsequently found. These can always be updated with the next round of benchmark studies. While clearly challenging, it is critical for researchers to find the appropriate balance between these competing ends and undertake a robust temporal and spatial analysis.

There are, nonetheless, certain questions that still evade quick and easy resolution. For one, a distinction cannot be readily drawn, simply from a standard cross section study, between chronic and transient poverty even with access to an array of supplementary data. While basic conditions of poverty are a legacy handed down from one generation to the next, many households will pass through various phases of being poor during their lifetime.

Availability of sequential data from longitudinal studies and time-related indicators may suggest solutions to policy makers about how poor households escape from poverty over time. Such time series data can reveal how changes in the circumstances of individual households and changes in the actual size and composition of the household, particularly its age and sex profile, can affect the daily living standards of its members.

Another key issue is that the record of expenditures compiled in a household survey implicitly assumes that the relative importance of any item is dependent on the simple share of the weekly or monthly budget that households spend on it. These surveys rarely take into account the question of priorities and the need for people to meet certain mandatory obligations when making their regular outlays. Importance of food, paradoxically, is frequently subsumed to that of shelter. Regular outlays on both have to give way to community charges and other unavoidable local fees, trade credit obligations, and protection payments. The occasional need to pay certain national statutory 'poll' taxes and repay personal debts to friends and relations are additional priorities.

The virtue of engaging different methods of inquiry to present a broad holistic picture that can simultaneously draw attention to details having a distinct bearing on the question under review (but which might otherwise have been overlooked), is indisputable. The actual act of researchers and officials in applying these methods and imputation techniques may have important and desirable feedback implications for the re-design of selected administrative records. It can also influence the choice of the qualitative survey approaches that could contribute to the creation of a more complete picture of poverty and its relationship to other social problems.

If carefully assessed and evaluated, the availability of more rather than less information will invariably contribute to a better understanding of poverty's multi-dimension character. The key is selecting and integrating the appropriate sources and series to match available data that address the essential broad issues.

Direct estimation of household final consumption expenditure (in contrast with its derivation as a residual) using several completely independent data sources has clear preference over single-source estimates. Having more than one estimate for the different expenditure items allows for comparative analysis and evaluation of quality and reliability. Comparative evaluation of conceptual and empirical differences and subsequent adjustments would improve the quality and reliability of the national accounts estimate for household final consumption expenditures as compared with a single-source estimate obtained from HBS expenditure data. Therefore, countries should be encouraged to apply statistical reconciliation (adjustment) techniques in deriving harmonized consumption expenditure averages for national accounts and HBS data in the broader contextual analysis of poverty. Furthermore, conceptual and empirical differences and adjustments between household surveys and national accounts data should explicitly consider the impact of these adjustments on income/consumption distribution across households for which the household survey is the only tool that can provide this information for the purpose of measuring poverty.

Household surveys need to be improved in many countries. They must make use of the extensive experience accumulated over the past decades in such areas as,

- Representative sample design,
- Consistency of forms and methods of data collection over time,
- Formulation of questions and coverage of data items, and
- Proper training of interviewers to reduce unit and item non-response and other non-sampling errors.

Notwithstanding, international agencies and other organizations should give high priority to developing global household survey standards to generate reliable poverty estimates consistent with the national accounts across countries and across time. As such, harmonized household surveys would encourage countries to adopt a direct measure of household consumption in national accounts.

ENDNOTES

E.1. Social transfers in kind (SNA, para. 9.72)

Social transfers in kind include:

- Individual goods or services produced or purchased by the government and NPISHs and distributed free or below market cost to individuals, such as education, health, social security and welfare, sports and recreation, culture, part of provision of housing, collection of household refuse, and operation of transport;
- Social benefits in kind include reimbursements from government's social security funds to households on specified goods and services bought by households on the market;
- Other social security benefits in kind are also counted, except reimbursement which are *not produced* by the government sector but bought and distributed free or almost free to households under the social security funds; and
- Social assistance benefits in kind, including the free distribution of food and clothing

E.2. Household production for own final consumption

It includes:

- Agricultural products and their subsequent storage;
- Gathering of berries or other uncultivated crops;

- Forestry;
- Wood-cutting and the collection of firewood; hunting and fishing;
- Production of other primary products such as mining salt, cutting peat, and water;
- Processing of agricultural products;
- Other kinds of processed goods, such as weaving cloth, dress making, and tailoring; and
- Own account fixed capital formation.

Other household production of services like cleaning, cooking, transportation, and the caring for children, and sick and old household members are outside the production boundary with two exceptions – services of paid domestic staff and imputed rent of owner-occupied dwellings. (SNA, para. 6.24)

E.3. Additional data for measuring household final consumption

Retail trade data constitute a more reliable source of information concerning consumption of alcohol, tobacco, and durables compared with the HBS results. If available at a detailed level, they are an important tool for verifying HBS data for many groups of non-food commodities. Retail surveys also cover consumption of institutional households and consumption of non-residents [but usually without distinction] on domestic territory, i.e., retail trade surveys present results in accordance with the domestic concept in national accounts.

The major problem with retail trade data is that they include sales to units other than households, i.e., purchases for business purposes, which should be excluded to achieve the 1993 SNA compliant estimate of household final consumption expenditure. If retail trade data are used independently and not constrained by other available sources for estimation of household consumption, they may underestimate expenditures of some commodities as households also purchase goods directly from producers or other households. At the same time, they may overestimate consumption of other households because purchases for intermediate consumption have not been excluded.

Surveys of enterprises are the other important data source providing information on the value of electricity and water purchased by households as well as transport, communication, and personal services provided. The main practical difficulty with enterprise data is the same as with retail trade data – they include business consumption, which should be excluded.

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