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Guide on poverty measurement**Extract of the Guide on poverty measurement****Note by the Task Force on Poverty Measurement***Summary*

The document presents an extract of the *Guide on poverty measurement*. The Guide was prepared by the Task Force on Poverty Measurement consisting of the following members: Georgia, Germany, Italy, Poland, Russian Federation, Turkey, United Kingdom, the Interstate Statistical Committee of the Commonwealth of Independent States (CISSTAT), Eurostat, the Organisation for Economic Co-operation and Development (OECD), United Nations Development Programme (UNDP), the United Nations International Children's Emergency Fund (UNICEF), the World Bank, the Oxford Poverty and Human Development Initiative and the United Nations Economic Commission for Europe (UNECE).

The objective of the Guide is to provide guidance in applying various measurement approaches at national level and to improve the international comparability of poverty statistics. The Guide focuses on areas where the statistical community has expressed a particular need for further guidance, including availability and comparability of key poverty measures, data requirements and measurement issues, and recent approaches to poverty measurement.

This extract has been prepared for translation purposes and includes selected parts of the Guide: chapter 1 "Introduction", parts of chapter 2 "Conceptual background", as well as the summary of recommendations on monetary poverty in chapter 3. The literature references mentioned in this extract are listed in the full version of the Guide.

The full text of the Guide has been sent to all members of the Conference of European Statisticians for electronic consultation. It is available at: www.unece.org/index.php?id=43851. Subject to a positive outcome of the consultation, the Guide will be submitted to the 2017 plenary session of the Conference of European Statisticians for endorsement.

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I. Introduction

A. Why this Guide?

1. Nowadays, poverty is increasingly recognized as a global phenomenon. The call for internationally comparable poverty measures is especially strong in the context of the 2030 Agenda for Sustainable Development. Moreover, the recent economic crisis has heightened the need for reliable and timely statistics for international monitoring and national policymaking on poverty reduction.
2. In the UNECE region, countries' approaches to poverty measurement vary significantly. For many indicators, wide varieties of definitions, methods, and primary data sources are not fully matched by national or international guidelines for their application.
3. The Rio Group created by the United Nations Statistical Commission published a Compendium of best practices in poverty measurement (Rio Group, 2006). While the Compendium presents important concepts and definitions, it also pointed out that the state of the art and the very unequal availability of statistical instruments across countries were not conducive to the preparation of a universally applicable handbook at that time.
4. The Canberra Group handbook on household income statistics (UNECE, 2011) presents the concepts and components of household income, describes country practices and provides guidance on quality assurance and dissemination. It also includes a brief section on the analysis of income poverty. The Canberra Group handbook thus addresses the methodological basis for income poverty measures, but does not specifically elaborate and provide recommendations on poverty indicators and the related methodological choices. Furthermore, issues of non-monetary poverty were beyond the scope of the Handbook.
5. In 2012, the Bureau of the Conference of European Statisticians (CES) conducted an in-depth review of poverty statistics based on a paper by the State Statistics Service of Ukraine and Eurostat (UNECE, 2012a,b). The review provided an analysis of the methodological issues underlying poverty measurement and presented two case studies: one at international level (Eurostat) and the other at national level (Ukraine). As a follow-up to the in-depth review, the Bureau requested the UNECE Secretariat to organize a seminar to discuss how to improve poverty measurement.
6. The seminar "The way forward in poverty measurement" was held in Geneva on 2-4 December 2013 with representatives from 29 countries and major international agencies active in poverty measurement in the UNECE region (CISSTAT, Eurostat, OECD, UNDP, World Bank). Participants discussed the main methodological issues in poverty measurement, data comparability, and inter-linkages between poverty, inequality, vulnerability and social exclusion. The seminar identified the need for guidelines and recommendations for improving the international comparability and availability of poverty statistics, and recommended that a Task Force undertake this work.
7. The CES Bureau established the Task Force on Poverty Measurement in 2014. It worked through 2015-2016 to develop this Guide.

B. Objective of the Guide

8. The objective of the Guide is to provide guidance in applying various measurement approaches at national level and to improve the international comparability of poverty statistics. The Guide focuses on areas where the statistical community has expressed a particular need for further guidance, which include availability and comparability of key poverty measures, data requirements and measurement issues, and recent approaches to poverty measurement.

9. The Guide refers to the SDG indicators and their underlying data needs and includes specific recommendations to national statistical offices. The Guide is based on the experience of UNECE member countries and other developed countries participating in the work of the Conference of European Statisticians.

C. Outline of the Guide

10. **Chapter 2** of the full version of the Guide provides an overview of poverty and related concepts such as inequality, social inclusion, vulnerability to poverty and poverty risk. It discusses the importance of poverty measurement and opens the debate about the advantages and disadvantages of different approaches. The chapter offers a synopsis of the methodological choices countries have and defines the bigger scope of measurement challenges in our contemporary world.

11. **Chapter 3** of the full Guide addresses the monetary approach to poverty, including the income and consumption expenditure measures that are most commonly used in measuring poverty. The chapter explains concepts and definitions, provides an overview of data sources, and discusses the advantages and disadvantages of various welfare measures. It examines in detail such key measurement issues as measuring self-employment income, goods and services produced for own consumption, transfers between households, social transfers, and transfers in kind. The chapter also reviews various approaches to setting a poverty line or threshold, illustrated with country examples. It identifies policy-relevant poverty indicators, concerning the level and depth of poverty and how these change over time. Finally, the chapter provides an overview of current practices, highlighting challenges related to assuring the comparability of poverty estimates.

12. Today the multidimensional nature of poverty is broadly recognized—poor health, job insecurity, social exclusion, malnutrition and lack of personal security are among the aspects of poverty that reach beyond people’s material conditions. Moreover, an integrated measure of multidimensional poverty has been included in the SDGs, to complement income poverty measures and show interconnected deprivations. **Chapter 4** of the full Guide therefore introduces non-monetary deprivations, reflecting Agenda 2030’s recognition that poverty is a multidimensional phenomenon. The chapter starts by showing the motivations for multidimensional measurement, with an emphasis on European countries. It then shows how countries can design basic dashboards of social indicators, and gives examples from the region. The chapter also introduces the indices of multiple deprivation, and provides examples of material deprivation measures in Europe. On these topics the Guide does not provide specific recommendations. Nevertheless, the users may find useful the experiences that exist on some countries and organizations.

13. **Chapter 5** of the full Guide addresses the measurement of the non-monetary aspects of poverty and social exclusion, and demonstrates their relevance for policy design and analysis at global, regional, and national levels. The key challenges faced by statistical offices in developing a multidimensional poverty index include identifying the various welfare dimensions, selecting indicators in assessing deprivations at the household level, and fixing poverty lines both for each dimension and overall. Although these measures are in general adapted to national circumstances, the need to ensure comparability at global and regional levels is also recognized. The chapter describes relevant measurement challenges and provides guidance to countries interested in developing multidimensional poverty measures. Further research and country experiences are needed to develop concrete recommendations in the area.

14. On some topics, the Guide does not make any clear-cut recommendations due to insufficient evidence from current practice. Such areas include the measurement and consideration in poverty estimates of social transfers in kind, household wealth, housing costs, and individual-level poverty. Furthermore, a person’s own subjective perceptions of his or her well-being are important for understanding poverty, and robust measures of this would need to be worked out. An overview of the areas envisaged for further work is provided in **Chapter 6** of the full Guide entitled “Challenges for the future”.

15. Annex I of the full version of the Guide presents poverty-related targets and indicators in the 2030 Agenda for Sustainable Development. Results from the UNECE survey on methods of poverty measurement in official statistics are presented in Annex II of the full report.

D. Why measure poverty? How is it measured today?

16. UNDP's 1991 Human Development Report captured the human development paradigm in a single sentence: "The real objective of development is to increase people's choices". The underlying concept is the ability to live long, healthy, and creative lives. Additional choices include political freedom, guaranteed human rights and self-respect—what Adam Smith called the ability to mix with others without being "ashamed to appear in public". From this standpoint, poverty is the inability to obtain or realize choices and opportunities; it is a violation of human dignity. Poverty means a lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or health clinic to go to, not having land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households, and communities. It means susceptibility to violence, and it often implies living in marginal or fragile environments, without access to clean water or sanitation (United Nations Economic and Social Council, 1998).

17. This broad definition of poverty should lend itself to practical measurement, which in turn should inform public discourse and policy actions. Poverty measurement therefore faces: (i) methodological issues ("get it right"); and (ii) public policy concerns ("make it useful"). This Guide addresses both sets of issues, to be useful for evidence-based policymaking at global, regional, national, and even sub-national levels. Such aspirations imply additional requirements for poverty indicators, as the meaning and measurement of poverty at these different levels can be quite different. While attempts to produce and use globally comparable poverty statistics inevitably face questions about different living standards and lifestyles, they make possible international comparisons and efforts to establish best practices. For these reasons, the promotion of international comparability is of great importance. Moreover, the adoption of Agenda 2030 further underscores the imperative of developing guidelines and identifying best practices in measuring international progress in poverty eradication.

18. Poverty should be measured for a number of different reasons. First, poverty measures provide estimates of the magnitude of the problem, and raise its visibility—they keep poor people on the policy agenda. Second, poverty measures are needed to identify poor people and pockets of poverty, and then to target appropriate policy interventions. This requires data disaggregation, in order to identify population groups that face higher risk of poverty, based *inter alia* on personal characteristics, family structure, place of residence, etc. It also requires dynamic measures that can monitor poverty over time and identify those trapped in poverty for longer periods. High quality poverty statistics are therefore needed to monitor and evaluate outcomes—especially the effectiveness of policy, programming, and project interventions focusing on poor people.

19. Poverty measurement has direct implications for policymaking, as different perspectives on poverty can produce different empirical conclusions. It starts with conceptual definition of what exactly is being measured. Are we concerned about inequality at the lower end of the distribution, falling short of some absolute minimum living standards, the inability to "keep up with the Joneses", or some broader type of social exclusion? Once the basic conceptual questions are answered, the definition of poverty should be operationalized in statistical terms. This seemingly technical issue can have serious (but often hidden) implications for policies. For instance, the use of different equivalence scales can produce different results for child versus elderly poverty, which can in turn create mixed signals for social protection policies.

E. Poverty and the Millennium Development Goals

20. The Millennium Declaration was adopted by heads of State and Government at the United Nations General Assembly in 2000; the Millennium Development Goals (MDGs) were adopted soon after. The eradication of extreme poverty and hunger were at the top of the agenda, as reflected in MDG 1 “Eradicate extreme hunger and poverty”,¹ which was supported by two targets: Target 1 (“Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day”, in purchasing-power-parity [PPP] terms) and Target 2 (“Halve, between 1990 and 2015, the proportion of people who suffer from hunger”). These two targets were supposed to be monitored at the global level by five indicators.² However, recent studies show that numerous statistical offices were unable to collect, analyse and disseminate the data used for MDG reporting. MDG statistics were often based on donor-funded surveys or modelling exercises (Loewe and Rippin, 2016).

21. Criticisms to the “\$1-a-day” poverty line stressed not only its arbitrariness, but also its failure to take into consideration other basic needs apart from food and essential non-food spending, such as housing, clothing and heating. In addition, the low \$1-per-day poverty line was not relevant for many countries in Europe and Central Asia, which contributed to the slow take-up of the MDG agenda in many countries.³

22. More broadly MDG progress was measured via over 60 internationally agreed (global) indicators; many others were used at the national level. With regards to poverty, the global MDG indicators were tailored to the specific situation of low-income countries. In 1990, people classified as living in extreme poverty based on this threshold were mainly found in rural regions. Nowadays, one fourth of the extremely poor live in cities. Therefore, a number of countries set their own national targets and added alternative indicators in order to capture these trends.

23. The current globally used poverty threshold of PPP\$1.90/day is also very low for countries in the UNECE region. To remedy this situation, the World Bank has suggested that in middle-income countries, two or more thresholds should be used. Other issues with absolute poverty lines are apparent in their high sensitivity to the choice of the PPP base year, the exchange rate used to convert income in national currency into U.S. dollars, and the basket of goods chosen to compute the PPP. Partly due to these problems, some institutions like the European Union and the OECD do not use absolute poverty thresholds for international comparisons, but rather rely on relative thresholds expressed as a share of median income (Bradshaw and Mayhew, 2011).

24. A general pattern was that, while richer countries generally engaged in less detailed and comprehensive poverty reporting under MDG 1, they frequently added other “national” targets and indicators that better suited their circumstances. These included, for example, measures of poverty prevalence among ethnic minorities such as the Roma, single mothers, or the proportion of population that depends on social benefits.

¹ For the list of MDG goals see <http://www.unmillenniumproject.org/goals/gti.htm#goal1>.

² The Target 1 indicators were: (1) the proportion of the population below living \$1 (1993 PPP) per day (World Bank) (*For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.*); and (2) the poverty gap ratio [incidence x depth of poverty] (World Bank). Target 2 indicators included: (3) the share of the poorest quintile in national consumption (World Bank); (4) the prevalence of underweight children under five years of age (UNICEF-WHO); and (5) the proportion of the population below minimum dietary consumption levels (FAO).

³ Similar issues appeared for the global Multidimensional Poverty Index. The deprivation thresholds selected were quite demanding, resulting in very low multidimensional poverty headcounts for many countries in Europe and Central Asia.

F. Monitoring the Sustainable Development Goals

25. The Sustainable Development Goals (SDGs) were adopted in September 2015 by world leaders as the monitoring framework for the 2030 Agenda for Sustainable Development, a plan of action for “people, planet, peace, partnership and prosperity”. Consisting of 17 goals and 169 targets, the SDGs build on the development journey inherited from the MDGs. Their reach is however much wider than poverty, gender, hunger, and major health problems. The SDGs break new ground by addressing inequalities, economic growth, decent jobs, energy, natural resources and environment, climate change, human settlements, and peace and justice, among others. They represent an agreed vision to put people and planet on a sustainable path by 2030.

26. There are a number of other important differences between the SDGs and the MDGs. First, while the MDGs were driven to a significant extent by the donor community,⁴ the SDGs were developed by all Member States through a participatory process. While the MDGs were applicable mostly to the least developed countries, the SDGs offer an agenda for all people of the world, putting specific emphasis on “leaving no one behind”—which has serious implications for monitoring and evaluation. SDG targets go beyond averages and refer to different groups (e.g., women and men; migrants; urban and rural inhabitants; the poor, middle-class, and the more well off). Last but not the least, the SDGs offer an integrative agenda (compared with the narrower, sectorial MDGs).

27. These differences have important implications for SDG monitoring, and especially for poverty measurement. First, SDG goals and targets have to be treated as a network of targets, rather than as a list of standalone isolated variables (Le Blanc, 2015).⁵ As a result, poverty-related targets and indicators are found not only under Goal 1 (“End poverty in all its forms everywhere”), but also under Goals 10 (“Reduce inequality within and among countries”), 6 (“Ensure availability and sustainable management of water and sanitation for all”), and 8 (“Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all and some other”) (see annex I for overview of poverty-related SDG targets and indicators). The set of “poverty” indicators relevant for these goals will therefore be much larger than for the MDGs, including both absolute poverty (Indicator 1.2.1: “The proportion of the population living below the national poverty line, by sex and age”), relative poverty (Indicator 10.2.1: “The proportion of people living below 50 per cent of median income, by age, sex and persons with disabilities”), non-income poverty measures (Indicator 6.2.1: “The proportion of the population using safely managed sanitation services, including a hand-washing facility with soap and water”), as well as multidimensional poverty (Indicator 1.2.2: “The proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions”).

28. This comprehensive set of indicators represents a challenge for monitoring. While a global list of indicators has been agreed (United Nations Statistical Commission, 2016a), many of these indicators either lack an established methodology (so-called “tier 3 indicators”) or are not supported by the regular production of the relevant official statistical data (“tier 2 indicators”). Out of the 229 approved global SDG indicators, only 119 are at present classified as “ready to go” tier 1 indicators; 44 are classified as tier 2 indicators, and another 76 are tier 3 indicators. In response, the United Nations Statistical Commission has “emphasized that the global indicators . . . are intended for global follow-up and review of the 2030 Agenda for Sustainable Development and are not necessarily applicable to all national contexts, and that indicators for regional, national and subnational levels of monitoring will be developed at the regional and national levels” (*Ibid.*, paragraph 47/101(i)).

⁴ The goals of the “Shaping the 21st Century” report became the basis of the United Nations’ Millennium Declaration and its MDGs (Organisation for Economic Co-operation and Development, 1996).

⁵ See also <http://peleah.me/sdg/sdgs-targets.html> for SDGs as a Network of Targets.

29. The SDG goals and targets pose significant challenges for national statistical offices, in terms of the capacity to produce the data needed to use the required indicators. Some of the SDG indicators are currently set up in a very general form and countries will require further methodological guidance in order to produce the data needed for their use. An example of such broadly defined indicators are those for target 1.2 (“Reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions”); 1.2.1 (“The proportion of the population living below the national poverty line, by sex and age”); and 1.2.2 (“The proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions”).

30. Most SDG indicators required for monitoring poverty, inequality and employment come from household surveys. However, many household surveys are not designed in order to measure living standards and poverty; emphasis is instead on measuring food consumption, housing services, and the cost of living (Gibson, 2015). In addition, in many countries the surveys are conducted on an irregular basis. Even if countries have a regular household survey in place, the data provided by the survey are either insufficient or not in line with the international standards. Sub-national poverty measurement, in particular, faces issues of inadequate data, as in most cases surveys are not representative at the local level.

31. Although the development of the SDG indicators at the regional, national and sub-national levels will pose challenges for national statistical offices and international organizations, it could also offer opportunities to strengthen statistical systems and make better use of innovative and inclusive data techniques for monitoring sustainable development. UN-led discussions for the Europe and Central Asia region concluded that building national ownership of SDGs in national policy frameworks would require tailoring indicators to national conditions (United Nations Development Programme Istanbul Regional Hub, 2016). To do this, governments would need to build new statistical partnerships for poverty reduction, improve metadata for survey quality, and assess data ecosystems. This Guide seeks to support these efforts.

G. International comparability—key to successful policies

32. There is a large global spectrum of poverty indicators and definitions. To give a comprehensive picture of poverty, national statistical offices use multiple concepts and thresholds. In addition to absolute poverty lines, many countries use relative lines defined as a certain percentage of national median income. This is the most frequently used measure in richer countries in the region. However, in times of crisis, changes in the percentage of people living under such poverty line may lead to counterintuitive results, because the median income to which the line relates may fall by more than the incomes of the poorest households. There is consensus that no single approach is sufficient for monitoring poverty at the national and regional levels. The results from different approaches thus have to be communicated clearly, to allow correct interpretation of the different measures.

33. For national governments, the availability of comparable poverty measures can provide important information when dealing with the implementation or evaluation of policies and programmes. Without international comparisons, it is difficult for countries to measure their progress towards eradicating poverty. In the UNECE region, this implies both comparing efforts to neighbours to establish best practices in the region, and developing key statistical measures to facilitate comparison across sub-regions. It could also mean that lower middle-income countries may need to compare their approaches and poverty conditions to those prevailing in more developed economies, in order to establish programmes based on what has been done in similar context.

34. Use of the same poverty definitions operationalized in different ways (e.g., by using different equivalence scales, or using income rather than consumption as a welfare metric) can produce quite different results, both within and across countries. This in turn can also affect

national and regional policy decisions. Moreover, the choice of definitions and indicators for monitoring countries' current state and progress faces certain trade-offs. On the one hand, ensuring international comparability suggests the use of universal definitions and harmonised methodologies; but on the other hand, a certain degree of flexibility is needed for a measure to be truly meaningful in a country-specific context—suggesting the use of indicators that reflect national characteristics. Countries should therefore measure poverty in ways that respond to their needs and policy priorities. To preserve this flexibility, keeping two poverty targets (global and national) is foreseen in SDG monitoring, as was the case with MDGs.

35. Many international organizations—the World Bank, OECD, UNDP, Eurostat, just to mention a few—produce poverty data. There have been continuous efforts to improve capacity in statistical offices to develop poverty measures in line with international standards. However, in most cases, these data are not comparable and often cover only a limited number of countries. A lack of comparable data across countries and time impedes effective policy actions. Data produced by countries are not always comparable internationally, largely for two main reasons:

- Country data primarily respond to national needs, which do not always correspond to international standards; and
- Country data reflect national statistical capacities, which are not always able to meet international standards.

36. Both of these concerns are relevant for the UNECE region—which is quite heterogeneous in terms of development levels, so that countries have different needs when measuring poverty. The periodicity of surveys providing poverty data varies widely between countries, with some countries conducting surveys only every 10 years.

37. National statistical offices mainly rely on two major surveys to measure poverty: the annual EU-SILC (European Union Statistics on Income and Living Conditions) survey that provides information on household disposable incomes and different types of material deprivations; and household budget surveys, which are typically conducted every three to five years. Some countries apply both surveys.

II. Conceptual background

A. The concepts of poverty, inequality, and social exclusion

38. The concepts of inequality, poverty and social exclusion are complex and interlinked. Inequality of incomes is the most obvious type of inequality, but inadequate if considered alone (Sen, 1997). In some cases, inequalities leave some people so far away from the social mainstream that the deprivations they experience push them below what are viewed as basic standards. To take a comprehensive view of poverty, multiple and sometimes intersecting inequalities should be examined. In practice, poverty is often operationalized and measured in terms of income or consumption poverty, with poverty lines based either on biological consideration (e.g., the cost of a minimum food basket plus an allowance for basic non-food basic needs), or on social standards that prevail in a given society at a given time. One of the main sources of dissatisfaction with absolute poverty measures is that they ignore concerns about relative deprivation, shame, and social exclusion (Ravallion, 2015).

39. Interpretations of poverty's effects on social welfare have profound implications for global and regional poverty measurement, as they require defensible and common concepts of individual welfare, against which everyone's poverty status can be judged (to the extent that the requisite data are available). Sen (1983) argued that a person's capabilities should be seen as the absolute standard but that "... an absolute approach in the space of capabilities translates into a relative approach in the space of commodities". Often people face not just one problem (e.g., lack of

incomes), but a complex set of interlinked deprivations (lack of education, meagre employment opportunities, etc.), which in turn reduce their income. (“When you work, you have friends. As soon as you lose your job, you have no friends at all”—UNDP Regional Bureau for Europe and the Commonwealth of Independent States, 2011, p. 8).

40. While poverty is a relatively stable concept, social exclusion can be seen both as a process and as an outcome. As a process it pushes certain individuals to the social margins and prevents their full participation in relevant social, economic, cultural, and political processes. As an outcome, social exclusion denotes the status and characteristics of the excluded individual. Social exclusion status has many dimensions—poverty, a lack of basic competencies, limited employment and educational opportunities, as well as inadequate access to social and community networks and activities. Khan, Combaz, and Fraser (2015) provide a comprehensive overview of the topic and the related literature.

41. As described in UNDP (2011), the concept and approaches to individual vulnerability from a social exclusion perspective evolved in connection with the notion of “social rights”, which has its origins in European welfare states. Lenoir (1974) defined “the excluded” as people representing all social categories that were not included in the social insurance systems specific to the welfare state. Within a discourse of citizenship, social rights and social justice, the status of “being socially excluded” is not merely understood as lack of access to goods and services but as the denial of social rights. If poverty is defined in relation to income or material deprivation, social exclusion is defined in relation to such social rights as the right to work, the right to housing, the right to health services, or the right to education (Lister, 2004). For Sen (2000), social exclusion occurs when one does not have the freedom to undertake important activities that a person would otherwise have reason to choose.

42. The process of social exclusion is intrinsically linked to the denial of freedoms. People may be unable to take advantage of an opportunity because of a deliberate policies or social practices (active exclusion), or as a result of complex webs of social processes in which deliberate attempts to exclude are absent (passive exclusion). Social exclusion assigns a central role to relational connections and unequal power relationships (Stewart et al., 2006). According to Silver (1995), social exclusion breaks the bond between society and the individual.

B. Methodological choices

43. Poverty measurement requires making a number of methodological choices. The first choice is what to measure: income, consumption, or broader capabilities? The most common approach is to measure monetary poverty, based on indicators of income or consumption as proxies for material living standards. These are the conventional poverty measures that use information on household income or expenditure estimates.

44. A number of researchers have advocated the measurement of non-monetary aspects of poverty. For instance, the Multidimensional Poverty Index (MPI) developed at Oxford University uses ten indicators to measure three critical dimensions of poverty at the individual level: education, health, and material living standards (For more on this see Chapter 5.) These indicators measure deprivations in health and educational outcomes as well as in access to key services such as water, sanitation and electricity. In the mid-2000s, the number of people living in extreme poverty in Europe and Central Asia was 12 million according to the MPI, while 23 million lived on less than PPP\$1.25/day. Multidimensional poverty was relatively low in most of these countries, due both to relatively high per-capita incomes and extensive state investment in service provision.

45. The spectrum of poverty measurement approaches varies from purely monetary to non-monetary aspects, with much variation (see Table 2.1). Measurement choices of are often implicit, and can have a profound impact on results and related policies.

Table 2.1
Different approaches to poverty measurement

Unidimensional	Monetary	Income based	Absolute poverty lines	National thresholds specific for individual countries, in the national currency	1. Cost of basic needs
					2. Subsistence minimum
			Internationally comparable thresholds	3. Severely poor with income below 1.9 PPP\$	
				4. “Just poor” with income below 3.1 PPP\$	
			Relative poverty lines	Share of the median (or mean) income	5. Relative low income (example: below 50% or 60% of the contemporary median equivalised income in each country)
					6. Relative low income anchored at a fixed point in time
		7. Weakly relative poverty line			
		Expenditure based	Absolute poverty lines	National thresholds specific for individual countries, in national currency	8. Cost of basic needs
					9. Subsistence minimum
				Internationally comparable thresholds	10. Severely poor with expenditures below PPP\$1.90/day
					11. “Just poor” with expenditures below PPP\$3.10/day
			Relative poverty lines	Share of the median (or mean) expenditure	12. Relative low expenditure (example: below 50% or 60% of the current median equivalised expenditure in each country)
					13. Relative low expenditure anchored at a fixed point in time
					14. Weakly relative poverty line
	Food energy intake (FEI)				15. Nationally specific FEI-based poverty rates (varies by climate conditions, rural/ urban distribution, type of occupation, etc.)
	Deprivations				16. Indicator dashboards
					17. Indices of multiple deprivation
	Multidimensional poverty estimates – internationally comparable (following the methodology developed by OPHI and used for international comparisons and in the Global HDRs published by UNDP)				18. Multidimensional poverty index (thresholds for the various dimensions)
	Nationally specific, following the methodology developed by OPHI				19. Severely poor
				20. “Just” poor	

Source: Modified from Ivanov and Kagin (2014).

46. Monetary and multidimensional poverty measures are complementary. Both are valuable for identifying poor people and shaping policy. They provide different insights. What can be surprising is the common finding that people who are multidimensionally poor, or deprived in non-monetary indicators, are not necessarily income poor. Divergences between monetary poverty and multidimensional poverty indicators mean that neither is a sufficient proxy for the other; both need to be measured (see Box 3.5 in the full version of the Guide). Moreover, reducing non-monetary deprivations often requires different policies than reducing income poverty.

47. Another important question is who is judging the living situation—analysts (as in the monetary and non-monetary cases), or people themselves (subjective poverty). While there are no internationally agreed measures on subjective poverty, national examples of its measurement and determinants exist. This Guide proposes future work that would lead to a few robust internationally comparable indicators on subjective poverty.

C. Measurement issues

1. Non-coverage

48. Poverty statistics should in theory cover all of the population of interest. However, when measuring poverty through poverty surveys it should be recognised that certain categories of people who may be likely to be poor are frequently omitted from the sampling frame since they do not live in households. This is of particular concern for the hard-to-reach groups, such as homeless people (including street children), drug users, sex workers, people who are in institutions, including elderly care homes, children's homes, and mental health institutions; Roma; people in temporary accommodation or hostels; prisoners; and refugees in camps or illegal immigrants are notoriously difficult to access in a systematic way. These groups may thus require special approaches—either because of unrepresentative sampling concerns, or because they may face special forms of deprivation or exclusion. For instance, while children in institutions may have their basic needs (food, clothes, shelter, etc.) covered, they may lack the social skills needed for inclusion—which is not captured by standard surveys.

2. Disaggregation

49. Disaggregation is necessary to provide a detailed picture of certain population groups. This is a key aspect of the 2030 Agenda's aspirations "to leave no one behind". Most often, disaggregation entails survey design to allow for the collection and analysis of data concerning age, sex, education level, occupation, and place of residence. Disaggregation by employment and health status, and ethnicity, can also be of key importance.

50. The collection of data that are disaggregated by ethnicity can be challenging. On the one hand, respondents may view this as sensitive information that can potentially be misused. On the other hand, policymakers need statistical information to rectify any discrimination and unequal treatment by ethnicity.

3. Equivalence scales

51. One important measurement issue is the choice of equivalence scale with which to adjust household resources in order to take into account shared consumption, housing and specific needs (Lanjouw, Milanovic and Stefano, 1998; World Bank, 2000). Economies of scale arise, for example, by sharing expenditures on housing, utilities, car or newspapers. Apart from household size, the age or gender of household members may also influence the amount of income or consumption needed to attain a certain level of well-being. Measures of the incidence of poverty among children and the elderly are particularly affected by the choice of equivalence scale.

4. Poverty dynamics

52. When analysing poverty trends, it is important to ask: Are the poor the same this year as last year? Have they just fallen in poverty, or is their poverty recurrent? In other words, it is important to measure poverty from a longitudinal perspective. For example, in the Netherlands in the 1980s and 1990s, high levels of economic growth and significant increases in labour market participation did not reduce poverty. However, data from the lower end of the income distribution showed that poverty spells were generally of short in duration. In addition to the magnitude and duration of low income status, attention should be paid to the extent to which poverty is recurrent (Fouarge and

Layte, 2005). The higher income mobility or volatility and the shorter the duration of poverty, the higher the reported poverty rate will be.

53. In the Republic of Moldova during 1997-2002, a decomposition of poverty into chronic and transient components revealed that poverty was mainly chronic, accounting for as much of 90% of the people classified as poor (Beegle, 2004). That is, despite transitions among households in terms of rank, a very large fraction of the poor in any year are likely to remain poor in the next period. Using the set of panel households interviewed in four consecutive years, the analysis showed that around 25% of households were poor in every period. Only 14% of households were not poor in any of the four survey rounds. While the vast majority of the population was exposed to poverty during 1997-2002, a sizeable core group of households remained poor throughout the entire period.

54. Knowing the length of time that a household has been poor is crucial for understanding the short- and long-term impact of poverty. Although short spells of poverty are always unwelcome, they do not usually threaten subsistence or significantly damage life prospects as individuals and households can reduce expenditure, run down savings or borrow. However, these tactics are unlikely to be sufficient in the long run. Only by using longitudinal data one can understand the processes behind cross-sectional statistics: the events leading individuals into and out of poverty, and the associated impact on their living standards. Longitudinal poverty analysis can also identify ways in and out of poverty, which can help policymakers adopt better safety nets or other inclusion policies.

5. Reporting on poverty and inequality

55. Discrepancies between international and national databases often result from differences in the ways in which the associated indicators are defined and reported. In the MDG reporting context, for example, despite the existence of the official global list of goals, targets, and indicators issued by the United Nations,⁶ most countries provided data on only some of these.

56. Some poverty indicators may appear only in international data series, whereas others may only appear in national series. Moreover, for indicators that are included in both sets of databases, definitional variations can produce significant differences in the values reported for national and international purposes.

57. Complications in measuring inequality result from the fact that the most common international databases that show income distribution data for the countries of the region —such as POVCALNET or SWIID— often present data that differ from what can be found on the public websites of the national statistical offices in the region.

6. Measuring non-monetary poverty

58. Multiple approaches have emerged in response to the need to measure non-monetary poverty. Broadly speaking, these can be divided into two groups. The first consists of dashboards of carefully defined and validated social indicators, which present each indicator separately and unidimensionally. Taken together, these measures can offer empirical insights into the different aspects of poverty considered one by one; they can also draw on different datasets.

59. The second group consists of MPIs, which combine individual deprivation indicators that contain deprivation thresholds into aggregated, composite measures (Alkire and Foster, 2011; see also Chapter 5). In the case of multidimensional poverty, the identification of who is poor (according to one or several poverty thresholds) is usually based on the joint distribution of individual or household deprivations, and often uses a counting approach (Atkinson, 2003). These may or may not include income or expenditure poverty among the dimensions.

⁶ See <http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>

III. Summary of recommendations on monetary poverty

60. This section provides a summary of the recommendations for improving the international comparability of statistics on monetary poverty and the related metadata set out in the previous sections of this chapter.

A. Unit of observation/analysis and population coverage

61. In producing data on income or consumption, the normal unit of observation should be the household, for both practical and conceptual reasons.

62. Poverty statistics should be reported at the individual level, with indicators describing, for example, the number of individuals in a population living in households below the poverty line.

63. It is recognised that the majority of poverty statistics only cover private households. It is recommended that NSIs explore the feasibility of extending this coverage. This may involve research such as that given in the case study examples in this chapter, or utilising alternative data sources, including big data, in order to estimate poverty in population groups that are difficult to reach. It is essential to inform users about the coverage of the published poverty statistics.

B. Disaggregation of data

64. Given the importance of disaggregation, it is recommended to disaggregate poverty indicators whenever possible. As a minimum, the poverty indicators for the UNECE region should be disaggregated by age, sex, employment status, household type, disability status and urban/rural population.

65. It is further recommended that the following classifications be used for these breakdowns.

Age:

0-17 (children)

18-24

25-34

35-44

45-54

55-64

65-74

75-84

85 and over

Employment status:

Employed

Unemployed

Retired

Other outside the labour force

Household type:

One-person household

Couple without children⁷

Couple with children⁷

⁷ Consistent with the CES census recommendations (UNECE, 2015a), “children” are understood here as “at least one resident child under 25”.

Lone parent⁷

Other

*Urban/rural*⁸:

- Predominantly urban region
- Intermediate region
- Predominantly rural region

C. Welfare measures

66. It is recommended that disposable income be the main income measure used for poverty measurement, as this reflects the actual income that a household has available for spending or saving. However, to provide additional insights into the nature of poverty in a country or area, compilers of poverty statistics may also wish to make use of supplementary income measures, such as income before social transfers.

67. Where consumption is used as a welfare measure, it should be based on consumption expenditure.

68. Both income and consumption expenditure have particular strengths and weaknesses as poverty measures. Their choice should depend on data availability. Where both income and consumption expenditure data are available for a given population, there is value in utilising poverty measures based on both approaches. However, for international comparisons of poverty across the UNECE region, it is recommended that income be the main welfare measure, given its widespread usage among EU and OECD countries as well as increasing availability in other areas of the region.

69. Given the advantages of considering multiple welfare measures together, it is recommended that, where data availability allows it, compilers of poverty statistics consider examining poverty measures based on income and expenditure as well as their intersection, taking advantage of statistical matching techniques where possible.

70. Due to the challenges associated with measuring housing services from owner-occupied dwellings and the variation in methods employed across countries, it is recommended that such services be excluded from the main poverty indicators used for international comparison. However, for national purposes, compilers of poverty statistics may find it useful to consider supplementary measures including imputed rent, or take account of home ownership in other ways, such as using an after housing costs measure. To better aid international comparison in future, as well as the targeting of resources at the national and international level, it is recommended that international organisations develop new guidelines on the measurement of imputed rent for inclusion in poverty and inequality statistics.

71. In practice, because of the challenges involved in measuring the value of services by household consumer durables, they are excluded from the operational definition of income set out in the Canberra Handbook (2011). For the same reason, they are also excluded from the measurement of consumption expenditure in practice. It is therefore recommended that the same practice apply for the purpose of internationally comparable poverty statistics.

72. As accounting for the value of social transfers in kind is not yet common practice, it is recommended that they be excluded from indicators used for international poverty comparisons (at

⁸ This classification should be based upon the population density of local areas rather than self-report. Details of existing classification methodologies used for international comparison within the UNECE region are available from OECD (2011) and Eurostat (2015b).

least for now). It is also recommended that statistical compilers consider developing methods for including these transfers in income and consumption expenditure statistics, and invest in learning from international best practices, so that future international comparisons may be based on data in which the effects of these transfers are included. To assist with this, guidance for national statistical offices should be developed by international organisations.

73. While wealth is an important factor to consider alongside income or consumption in assessing poverty, it cannot be used as a measure of poverty on its own. It is recommended that countries invest in developing wealth statistics that can be assessed alongside other welfare measures, with the long-term aim of being able to consider jointly the distribution of income, consumption, and wealth, in order to provide a complete picture of individuals' economic well-being. This should be possible when registers and other administrative data sources are available to producers of statistics. Alternatively, statistical matching techniques should be utilised where income (or consumption) and wealth are not available through the same survey source.

D. Poverty line

74. In setting relative poverty lines for international comparison purposes, it is recommended that the median is used as a parameter, as it provides a more stable threshold which is less affected by measurement issues towards the top of the distribution

75. For international comparisons of relative poverty among CES countries, a 50% threshold is recommended, in order to provide consistency with the global SDG indicators.

76. In setting a poverty line, equivalised welfare measures should be used. For international comparisons, trade-offs need to be made between applying country-specific approaches reflecting different economies of scale and possibilities for cross-country comparability. For comparisons across the UNECE region, it is recommended that the square root scale be used in order to provide coherence with existing statistics contained within the OECD income distribution database.

E. Indicators

77. For poverty measures, it is recommended that the primary indicator is the headcount ratio, due to its widespread acceptance in policy and ease of comprehension. Poverty data producers should consider the value of adopting other indicators, such as the poverty gap ratio or person-equivalent poverty at the national level.

78. No dynamic indicators are proposed due to the limited availability of suitable longitudinal data apart from countries producing EU-SILC data. However, given the value of persistent poverty indicators, where resources allow, NSIs should look into opportunities for producing longitudinal data, from either survey or administrative sources, to be able to produce dynamic poverty indicators in the future.

F. Regional poverty measures

79. Monetary poverty indicators for the UNECE region should be aligned with to the SDGs targets.

G. Metadata

80. Metadata are important for helping users understand the extent to which data are comparable across countries and over time. This is particularly the case where indicators are based on national poverty lines, which allow for considerable variation between countries.

81. For monetary poverty indicators for the UNECE region, it is recommended that the following minimum set of metadata are made available, in order to help users to make sensible comparisons both between countries and within countries over time:

1. Conceptual metadata

- Unit of observation (e.g., household)
- Unit of analysis (e.g., individual)
- Population covered (e.g., private households)
- Welfare measure used (e.g., equivalised disposable income). Include information on any deviation from main international standard (e.g., UNECE Canberra Handbook (2011))
- Equivalence scale used (e.g., square-root scale)
- Type of poverty line: Absolute or relative (for indicators based on national poverty lines)
- Methodology for calculating poverty line (for indicators based on national poverty lines)
- Reference period: Period of time or point in time to which the measured observation refers
- Unit of measure: Unit in which the data values are measured (e.g., headcount ratio, percentage of population).

2. Methodological metadata

- Data provider: Organization that produced the data.
- Source data: Characteristics and components of the raw statistical data used for compiling statistical aggregates, i.e., type of primary source (e.g., survey, census, registry) and any relevant characteristics (e.g., sample size for survey data).
- Contact information: Individual or organizational focal points for the data, including information on how to reach them (e.g., website, mail address, phone, e-mail).

3. Quality metadata

- Comparability: Explanations should be provided where differences between statistics can be attributed to differences between the true values of statistical characteristics. Comparability issues can be broken into:
 - Geographic differences: degrees of comparability between statistics measuring the same phenomenon for different geographical areas;
 - Temporal differences: degrees degree of comparability between two or more instances of data on the same phenomenon measured at different points in time.
- Periodicity: (e.g., annual, every five years, etc.);
- Timeliness: Number of months after income/consumption reference period;
- Accuracy: Closeness of computations or estimates to the exact or true values that the statistics are intended to measure. This includes bias (systematic error) and variance (random error). It may be described in terms of major sources of error (e.g., coverage, sampling, non-response) or measures of accuracy.