Analysing and Measuring Social Inclusion in a Global Context

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Background

Fifteen years ago, the World Summit for Social Development (Copenhagen, 1995) established the concept of social integration to create “a society for all,” as one of the key goals of social development. The Social Summit recognized that social integration was an important determinant of, and significantly affected by, poverty and unemployment. Likewise, poverty eradication and employment creation are key areas in achieving the goal of social integration. The Social Summit further viewed that the failures of social integration would lead to “social fragmentation and polarization; widening disparities and inequalities; and strains on individuals, families, communities and institutions as a result of the rapid pace of social change, economic transformation, migration and major dislocations of population, particularly in areas of armed conflict.”

Creating a society for all is not only for moral obligations, but also is based on fundamental human rights as well as principles of equality and equity. There are also strong instrumental reasons for promoting social integration and inclusion. Deep disparities, based on unequal distribution of wealth and/or differences in one’s backgrounds, reduce social mobility and ultimately pose negative impact on growth, productivity and well-being of society as a whole. Promoting social integration and inclusion is a path towards creating a more safe, stable, and just society, which are essential conditions for sustainable economic growth and development.

The significance of the concept of social integration and inclusion has been increasingly recognized in recent years. Especially, the ongoing global financial and economic crisis, threatening the progress so far made in social development, and further aggravating social tensions in many societies, has made a growing number of policy makers aware of the importance of social integration and inclusion. The necessity for timely interventions is more than ever felt in the current environment. Therefore, moving beyond the concept and devising concrete and practical strategies to promote social integration and inclusion are of utmost importance so that the lives of many who are disadvantaged in society - those who are traditionally excluded or marginalized, those who are living in poverty, and those who are falling into poverty - are protected and further improved. Such strategies need to be based on quality and regularly updated information and on systemic analysis of the actual impact of such policies and strategies.

In an effort to explore practical strategies to promote social integration and inclusion, the United Nations Department of Economic and Social Affairs (UNDESA) organized an Expert Group meeting, in collaboration with UNESCO and UN-HABITAT in September 2007, in Paris. One of the objectives of this meeting was to explore a variety of existing approaches to capture, analyze, and measure the multiple dimensions of social inclusion and other-related concepts and identify common elements necessary for developing indicators to monitor and measure the progress of interventions aimed at fighting poverty and social exclusion and promoting social inclusion.

Taking account of the recommendations arising from the meeting, this study was commissioned by UNDESA. It was prepared by two independent experts to demonstrate the analytical and operational relevance of “measuring social inclusion” as a practical tool to assess the impact and monitor the progress of social inclusion interventions at the local, regional, national and global

1 Review of further implementation of the World Summit for Social Development and the outcome of the twenty-fourth special session of the General Assembly – E/CN.5/2005/6, para 165
2 Review of further implementation of the World Summit for Social Development and the outcome of the twenty-fourth special session of the General Assembly – E/CN.5/2005/6, para 165
levels. While the study gives examples from around the world, it draws particularly on the European Union (EU) experience in the construction of social indicators and in their actual use in the policy process and it seeks to provide important insight and lessons for the global application. In this publication, social inclusion is understood as the process by which societies combat poverty and social exclusion, while there are various understandings of social inclusion.

This study is meant to serve as a guiding framework for policy-makers, researchers, and practitioners who are interested in developing practical tools for evidence-based policy-making, impact assessment, monitoring and evaluation in the area of social inclusion. It is meant to provide directions for how to develop one’s own tools, taking into consideration the historical, cultural, and contextual backgrounds of their society. The study builds on the work on social indicators that has already been undertaken by many people at local, national, regional and international levels. It is hoped that it will help spark new ideas, innovative approaches, and inspiration.
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Analysing and Measuring Social Inclusion
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I. Introduction

This study is concerned with social inclusion, seen here as the process by which societies combat poverty and social exclusion. In order to develop policies for social inclusion, the factors working against social inclusion – poverty and social exclusion – have to be understood. The aim of the study is to demonstrate the analytical and operational relevance of the measurement of poverty and social exclusion, and to describe how such measures could be put in place. “Social exclusion” is defined here as the involuntary exclusion of individuals and groups from society’s political, economic, and societal processes, preventing their full participation in the society in which they live. And “Poverty”, as the lack of economic resources. As such, it is an important cause of social exclusion, where lack of resources prevents people participating, but there are other important dimensions. Social exclusion designates a broader – complex and multi-dimensional – set of concerns. Combating poverty and social exclusion via a process of social inclusion is intended to create a “society for all”. The achievement of social inclusion requires that both poverty and social exclusion be addressed in a balanced way.

This study deals with general concepts and principles of social indicators construction. It is hoped that it will be of value to international agencies, to national and sub-national governments, to researchers, to members of civil society organisations, and to practitioners. World-wide indicators have come to play an important role since the first Human Development Report was published by the United Nations Development Programme in 1990 (UNDP, 1990). Indicators have received political backing in the form of the Millennium Development Goals (MDGs; see Annex). This study seeks to illuminate the possible scope and usefulness of indicators in the field of social inclusion. At the same time, it does not identify a single set of indicators: the choice of indicators depends on the country context and on the purpose for which the indicators are to be employed. The global perspective discussed here does not imply that there should be a single global set of indicators for all purposes.

The diversity of circumstances across the globe means that the perspective adopted in this study is an ambitious one. The sources of concern about poverty and social exclusion are varied and have different intellectual origins. Countries identify different fault lines in their societies. While the study tries to give examples from around the world, it draws particularly on the European Union (EU) experience in the construction of social indicators and in their actual use in the policy process (Atkinson et al, 2002 and Marlier et al, 2007). The EU path has been a distinctive one, reflecting the history and culture of the countries involved. At the same time, the EU experience is that of multi-country cooperation, and, as such, may have valuable lessons for other countries. The fight against poverty and social exclusion is a common challenge, and there is scope for mutual learning, despite the differences in circumstances and in levels of living. In particular, the negotiation of a common set of social indicators in the EU, which should allow countries and the EU to measure progress towards the common EU social objectives, has required that the points of agreement and disagreement be made explicit.

One of the main aims of this study is to spell out the key issues that need to be debated and resolved. In doing this, it is hoped that the study will provide concrete answers to
various “follow-up actions” suggested by the international “Expert Group Meeting on Creating an Inclusive Society: Practical Strategies to Promote Social Integration”.

This study focuses on measurement and on the conviction that quantification is an essential step in the analysis of poverty and social exclusion. At the same time, quantitative indicators need to be accompanied by qualitative evidence. Qualitative evidence is important for at least two reasons. First, it helps interpret the numbers and provides a start in understanding the underlying mechanisms. One cannot just look at the statistical tables; one has also to read the text. Secondly, there are significant elements of human experience that cannot readily be reduced to a simple scale.

II. Why do we measure?

The World Summit for Social Development in Copenhagen in 1995 defined an inclusive society as 'a society for all', in which every individual, each with rights and responsibilities, has an active role to play (United Nations, 1995, para 66).

Achieving such an inclusive society is a goal with universal appeal. An inclusive society is one which over-rides differences of race, gender, class, generation, and geography. It ensures equality of opportunity, regardless of origin. An inclusive society is one which subordinates military and economic power to civil authority, and where social interaction is governed by an agreed set of social institutions. The capability of all citizens to determine these institutions is indeed a hallmark of an inclusive society. When confronted with new challenges, such as climate change, an inclusive society is one that gives everyone a say and everyone a responsibility.

Social inclusion is not only an abstract goal; it is highly relevant to today’s politics. Exclusion from political and economic power fuels armed rebellion and undermines peaceful transition under democracy. In less extreme form, a sense of social exclusion lies behind urban rioting and the disaffection of young people. In many countries, there are various powerless groups (including ethnic groups, minorities…) who suffer poverty and social exclusion; there are regions that have been left behind by economic progress; and there are barriers to social mobility. In all countries, full gender equality remains to be achieved.

There is therefore a high degree of political salience. Achieving greater social inclusion is a political imperative. This imperative has led in turn to the need to measure the progress of societies towards the reduction of poverty and social exclusion. There is a need for indicators of poverty and social exclusion. Measurement of poverty and social exclusion is necessary for three main reasons:

- to establish in a concrete form the extent of poverty and social exclusion;
- to determine the direction of change over time; and

\[5\] This Group met in Paris on 10–13 September 2007. The conclusions of the meeting, including the recommendations put forward by the Group, can be downloaded from: http://www.un.org/esa/socdev/egm'07/.
• as a practical tool to assess the impact of measures undertaken to promote social inclusion.

Creation of statistical measures will allow a country to assess its current performance according to an explicit set of criteria, to see whether progress is being made in reducing poverty and social exclusion, and to compare the effectiveness of different interventions. But measures are not purely national: a key role is played by international comparisons as well as by what could be termed as contextualised benchmarking. (Below, the Sub-section “A principle-based approach” briefly comes back on the importance of properly “contextualising” the interpretation of indicators when conducting international comparisons.) League tables of social indicators can be misused, but they provide useful insight into the determinants of poverty and social exclusion and can serve as spur to political action.

At a world level, the United Nations (UN), the World Bank, and other international bodies are interested in measures of poverty and social exclusion:
• to compare in a (reasonably) harmonised way the extent of poverty and social exclusion across countries;
• to determine progress being made in reducing poverty and social exclusion across countries and in the world as a whole; and, progressively
• to improve international comparative analysis and mutual learning between countries.

The Human Development Index, and related indices, published by the UNDP (for example, UNDP 2008) have amply demonstrated the political salience and value of such comparative indices. The need for quantitative social indicators has been highlighted by the adoption of specific international goals, such as the commitments of the World Summit for Social Development and the Millennium Development Goals (see Annex). The launching of these goals, and the creation of the necessary consensus, was aided by the evidence of the extent of poverty and social exclusion, such as the number of people living on less than US$1 a day. The monitoring of progress towards the achievement of these goals requires good measures of the change over time.

At national and supra-national levels, and also at sub-national level, the role of social indicators has been illustrated by the European Union (EU). One of the too little known features of this economic and political organisation is that the integration of its 27 member countries has progressively required the different EU Member States to make more explicit their commonly agreed and shared objectives. The formation of the EU has led governments to agree on yardsticks to assess performance. The “Lisbon Agenda” agreed in 2000 by EU Heads of State and Government identified the EU primary goals as growth and employment, coupled with greater social cohesion. To these three pillars, an environmental dimension was added a year later in the form of a strategy for sustainable development in which all four pillars should mutually reinforce

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6 Since 2000, the international poverty line has been set at US$1.08 a day, measured in terms of 1993 purchasing power parity (PPP). The PPP adjustment converts amounts expressed in national currency to an artificial common currency that equalises the purchasing power of different national currencies. At the rate used, US$1 should have the same purchasing power in the domestic economy as US$1 has in the US. The PPP adjustment is based on the results on price relativities of the International Comparison Programme.
each other. In the social domain, EU leaders decided that “the means of spreading best practice and achieving greater convergence towards the main EU goals” would be the so-called Open Method of Coordination (Conclusions of March 2000 Lisbon European Council). The OMC can be defined as a mutual feedback process of planning, targeting, monitoring, examination, comparison and adjustment of countries’ policies (at national and, if appropriate, sub-national levels):

- carried out on the basis of common objectives and guidelines agreed for the EU as a whole; and
- involving the European Commission (as the independent EU body) as well as all EU Member States and the key stakeholders (social partners, NGOs, academics…).

The social OMC, also referred to as the EU Social Protection and Social Inclusion Process is now applied to social inclusion (covering both poverty and social exclusion), pensions, and health care and long-term care.

The EU experience relates to a particular set of (rich) countries, but it is more widely relevant. In particular, the enlargement of the EU in 2004 brought into membership states whose incomes were significantly, in some cases very significantly, below those of existing members. This meant that a number of issues arose in the definition of poverty that apply in a global exercise. These include for instance the measurement of poverty in absolute rather than relative terms, the use of consumption rather than income as the basis for calculating the “financial” indicators, the equivalence scales to be used for taking account of the different size and composition of households (for instance when calculating poverty rates), and self-consumption (i.e., the valuing of goods for own consumption), etc. There are also lessons to be learned about the OMC process. Obviously, this study is not suggesting that the OMC approach should be applied worldwide. But it does argue that the OMC provides a very useful source of inspiration for a more ambitious global benchmarking exercise, as it concretely demonstrates how coordination among 27 countries, together with agreed common objectives and monitoring procedures as well as truly comparative analysis and international benchmarking can play a central role in the field of social policy.

The set of commonly agreed and defined social indicators adopted by EU countries and the European Commission as key tools for implementing and supporting this peer review exercise include the risk of poverty criterion of 60% of total household median equivalised net disposable income of the country in which the person lives. The design of these EU social indicators drew on a history of social science research dating back 40 years. In the United States, this was represented by the official publication Toward a Social Report (US Department of Health, Education, and Welfare, 1969). For Europe, reference should be made to Delors (1971). In Scandinavia, the desire to move beyond purely monetary indicators of well-being led to a broader concept of

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7 In 2006, the EU Sustainable Development Strategy was fundamentally revised (see: EU Council of Ministers, 2006 and European Commission 2005b-d).
8 For more information on the OMC, the EU social indicators and the ways to address some of the key challenges facing the EU Social Inclusion Process, see Marlier et al, 2007. See also: European Commission 2004, 2004a, 2005, 2005a, 2005e, 2006, 2006a-d, 2007, 2008 (these and plenty of other OMC-related documents can be downloaded from the web-site of the European Commission’s Directorate-General “Employment, Social Affairs and Equal Opportunities”: http://ec.europa.eu/employment_social/spsi/poverty_social_exclusion_en.htm). Finally, see also: European Parliament, 2005; Frazer and Marlier, 2008; and Marlier et al, forthcoming.
social welfare (see Johansson, 1973, and Erikson and Uusitalo, 1987). More recently, work has been undertaken on *The Social Quality of Europe* as part of an initiative during the Netherlands Presidency, reported by Beck, Van der Maesen and Walker (1997); and by the EuReporting Project, coordinated by ZUMA at Mannheim, concerned with the conceptual basis for social reporting (see, for example, Berger-Schmitt, 2000).

It should be noted that, in this study, the terms “social cohesion”, “social integration”, or “social capital”, each of which has to be used with care and would require extensive discussion, have not in general been used. For example, Berger-Schmitt and Noll (2000) provide a clear account of the relationship of these concepts with social exclusion. Social cohesion, defined by the Inter-American Development Bank, as “the set of factors that foster a basic equilibrium among individuals in a society, as reflected in their degree of integration in economic, social, political and cultural terms” (2006, page 2), is evidently a desirable objective, but it may or may not emerge from the elimination of poverty and social exclusion. Feudal societies may have been in equilibrium, but certainly were exclusive. Measures to foster social inclusion may or may not increase the capacity of people to live together in harmony. Social inclusion does not equal social integration. Social capital, described by the World Bank as “the glue holding society together,” is a means to an end rather than an intrinsic objective. Even though it would definitely be useful if a wider canvas could bring these concepts together and examine the potential synergies and potential tensions, poverty and social exclusion alone are however sufficient material for the purpose of this study.

Indeed, as will become clear in this study, the measurement of poverty and social exclusion is a task of considerable difficulty. Measurement requires a degree of precision about the underlying concept (see Section III below); the translation of broad intentions into measurable attributes of a society is a considerable step. The operationalisation of the attributes means that the available statistical sources and their limitations have to be investigated. Securing comparability is a big challenge. One needs measures that are (reasonably) comparable over time; one needs measures that are (reasonably) comparable across countries.

The difficulties of measurement mean that close links have to be kept between the design of social indicators and the questions that they are intended to answer. Measures have to be seen as designed for use in a particular context, not as all-purpose indicators. To give a simple example, a particular indicator may understate the extent of social exclusion, but by a stable amount each year. It may therefore be rejected as a basis for assessing the degree of social exclusion, but be perfectly adequate for assessing changes over time. Whether or not the imperfect indicator can be used depends on the purpose for which it is to be used. This study is concerned with the design of measures that are fit for purpose. By the same token, different measures may be needed for different purposes and in different contexts. This has already been illustrated by the difference between the Millennium Development poverty goal, framed in terms of an absolute $1 a day, and the European Union definition of the risk of poverty expressed in terms of relative incomes.

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It should be stressed at the outset that “indicators” are precisely that. Potentially they have great value in pointing to significant social problems and, taken together, a portfolio of indicators allows to draw conclusions about social progress. But indicators cannot be expected to provide a complete representation of the state of society. They are simply an indication. The nature of that indication will depend on the choices made with regard to definitions and with regard to data. Different indicators highlight different features of social problems. Indicators can help in our understanding of the phenomenon of poverty and social exclusion, but do not immediately provide explanations. The term “social exclusion” evokes notions of “agency”. Through what mechanisms, and as a result of whose actions, are people excluded? Is an unemployed person “unlucky” because the call centre in which they worked happened to work for Northern Rock or is their unemployment the result of systematic discrimination by employers against people from scheduled castes? How far are people responsible for their own situation? These are important questions, and agency is a key element in studying social exclusion (see Atkinson, 1998a), but they take us outside the compass of this study.

III. What do we measure?

The analysis of social exclusion emerged out of a long-standing concern with the measurement of poverty. For centuries, people have been concerned with those who are destitute, with churches, charities, and later governments making provision for the relief of poverty. Quantitative information about the extent of poverty, or the lack of economic resources, began to be assembled in Britain in the eighteenth century (Sir F M Eden, *The State of the Poor* (1797)), was developed by Booth, and took its modern form in the research in 1899 of Rowntree (1901), who carried out household surveys designed to measure the proportion of the population living in financial poverty. It was this kind of evidence in the United States in the 1960s (Orshansky, 1965) that led to the establishment by President Johnson of the War on Poverty.

*From poverty to social exclusion*

Contemporary concerns with well-being have highlighted that economic resources are not the only element in destitution and that we cannot look at resources without considering the social context. To take up first the latter point, the few references quoted above highlight that the definition of poverty is increasingly being framed in terms of capacity to participate in the society in which a person lives. Lack of financial resources is judged in relation to those of people living around. Poverty is in this way directly linked to social inclusion. Indeed, in the UK, Rowntree commented how the rising prosperity had “greatly raised the standard of living among the workers (…) But it did more: it encouraged them to envisage themselves as an integral part of the national life” (1922, page xv). More recently, the notion of participation underlay the approach adopted by Townsend (1979) in his analysis of poverty in the United Kingdom,

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10 The notion of agency has been examined by Sen (1985a and 1992) in his work on social justice.
and the EU Council of Ministers definition of poverty. In the latter definition, for instance, “the poor” are taken to mean:

“persons, families and groups of persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member State in which they live.” (EU Council of Ministers, 1985).

As noted above, this definition has been implemented as from 2000 by taking a risk of poverty criterion of 60% of median income of the country in which the person lives, and this forms the basis for several social indicators currently employed by the European Union.

The achievement of social inclusion goes beyond the elimination of poverty: it requires that the broader issue of social exclusion be addressed. It is this wider, multi-dimensional approach that has been emphasised in the Continental European literature on social exclusion. According to Silver, “the coining of the term is generally attributed to René Lenoir (Les Exclus, 1974), who (...) estimated that the ‘excluded’ made up one-tenth of the French population” (1995, page 63). Exclusion was particularly concerned with inability to participate in the privileged section of the labour market, with the associated benefits of social protection. The theme of labour market “outsiders” and “insiders” has a wider resonance, and in many countries the labour market is seen as pivotal. As stressed by the European Commission – but clearly of world-wide validity – our concern has to be with “the multidimensional nature of the mechanisms whereby individuals and groups are excluded from taking part in the social exchanges, from the component practices and rights of social integration” (European Commission, 1992, p. 8). Alongside economic resources and employment, one needs to take account inter alia of health, education, affordable access to —other- public services (justice...), housing, civil rights, security and justice, well-being, information and communications, mobility, social and political participation, leisure and culture. This leads to a portfolio of social indicators that is necessarily multi-dimensional, covering a range of fields.

At a world level, the adoption of a multi-dimensional approach to social inclusion has long underlain developments. The Foreword to the first Human Development Report set out the position clearly back in 1990 (see Box 1). Five years later, the Copenhagen Declaration and Programme Action explicitly put the people at the centre of development and highlighted the various manifestations of poverty (see also Box 1). The 2000/2001 World Development Report was entitled “Attacking Poverty”, but in his Foreword to the Report, the then President of the World Bank, James Wolfensohn referred to “the now established view of poverty as encompassing not only low income and consumption but also low achievement in education, health, nutrition, and other areas of human development” (World Bank, 2001, page v). The Report itself opened by referring to “poverty’s many dimensions” and stressed that these go beyond hunger, lack of shelter, ill-health, illiteracy and lack of education, very important though these are. The poor “are often treated badly by the institutions of state and society and excluded from voice and power in those institutions” (World Bank, 2001, page 15).
The approach adopted in this study is multi-dimensional, with a broad compass. As explained earlier, the term “social exclusion” is used here to designate this broad set of concerns. There are many respects in which people may be prevented from (full) participation in society. As noted at the outset, this study is concerned with involuntary exclusion. Where the rich choose to cut themselves off from the rest of society (for example by living in gated communities), this may reduce the degree of social integration, but does not represent social exclusion for the purposes of this study.

**Key issues of definition: subjective and objective indicators**

The indicators used are in many cases ‘objective’ in the sense that the status of individuals or households can be verified by documentary evidence and is not based on a subjective judgment by the respondent. There is however a risk that sole reliance on objective indicators could be seen as reducing the legitimacy of the exercise. Exclusion is a personal experience, and the views of those suffering poverty and social exclusion should not be disregarded. Some of the broader indicators of social exclusion, such as lack of political voice, may contain elements that are inherently subjective but that may prove very useful for the analysis of certain aspects of poverty and social exclusion.

There are three distinct senses in which social indicators could incorporate subjective elements. The first is where the standard or target is set on the basis of citizens’ responses to survey questions. An example is the ‘Leyden approach’ used in the Netherlands (see Van Praag *et al.*, 1982), where persons are asked about the minimum income they need for their own household in order to make ends meet (or to reach some other target, such as not being poor). The responses to this question are then aggregated across households of a specified type to arrive at a poverty line that can then be applied to the incomes of all households of that type to count the poor. 11 Or, people could be asked to specify the minimum standards of housing that they

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11 In order to eliminate excessively high estimates from wealthy households, the procedure adopted is often to take account only of answers from respondents who are balancing on a ‘budgetary tightrope’, i.e. who are on the verge of subsistence insecurity. Other studies have made use of the responses from all households.
considered acceptable in their society. An indicator based on those responses would then measure housing deprivation applying the same standard across the community.

A second subjective approach is to ask people “what level of spending is needed to keep a family such as yours out of poverty” and whether their own income is above or below this level. In this case, their poverty status is determined by their own subjective standard. This approach is adopted for example in Britain by Gordon et al (2000, page 30), who distinguish between “absolute”, “general” and “overall” poverty. Respondents were asked whether their income was “a lot below”, “a little below”, “about the same”, “a little above” or “a lot above”. In this approach, a housing indicator would be computed from the respondents’ assessments of their housing conditions on the basis of a specified set of criteria. A third use of the term subjective is where people are asked to make a subjective evaluation of their own situation - how they feel about “making ends meet” - and the indicator is directly based on those responses (i.e. not mediated through questions on the definition of a poverty line). In the case of housing, people would then be asked to assess their own housing circumstances. It should be stressed that the third approach is a different use of subjectivity compared with the first two approaches, as no overall poverty line or housing standard is derived, common to all households.

Both the second and third interpretations of the subjective approach imply that the situation of different persons is evaluated by different standards, raising important issues of equity in a policy context. The long-established literature on reference groups and equity evaluation shows that people respond to their objective standards by comparing their actual situation with some reference point, which can be a past or anticipated position, their notion of what is fair or reasonable or their view of what is practical in the current circumstances.

In addition to subjective measures of how people feel about “making ends meet”, there is a long-standing literature in psychology on subjective measurement of life satisfaction or “happiness”. Happiness has been receiving increasing attention from economists in particular in recent years (see, for example: Clark, Frijters and Shields, (2008); Frey and Stutzer (2002); Layard (2005); Ryan and Deci (2001); Van Praag and Ferrer-i-Carbonnel (2004)). The OECD has published in 2006 a study of alternative measures of well-being (Boarini, Johansson and d’Ercole, 2006), which refers to, among other variables, survey-based data on happiness and life satisfaction. Data has been available for some rich countries (notably the USA) for fifty years or more, and two striking features of overall life satisfaction measures have been noted. The first is that within countries there is a positive relationship between subjective satisfaction or happiness and measures of socio-economic status such as income, education and social class. The second, though, is that average satisfaction levels have not generally risen over time despite increasing average income/Gross Domestic Product (GDP) per capita. In considering the evidence on happiness, two important factors need to be taken into account. The first is that happiness cannot be equated with well-being; it may be a component in a measure of well-being but it is only one dimension. The second is that expressions of satisfaction reflect not only the person’s objective situation but also the interaction between that situation and expectations. Since, as noted above, expectations may adapt (to an unknown extent) in response to the realities of one’s life.
situation, satisfaction scores may reveal as much about expectations as about the external reality of the person’s circumstances. Hagerty et al (2001) note that expressions of high levels of subjective well-being can be found in environmental conditions that are in fact life-threatening. Subjective satisfaction measures clearly have value as “indicators” of a gap between expectations and realities, and are relevant to the issues of trust discussed in Section V, but the precise significance of such a gap is often difficult to interpret.12

The examples of income (or expenditure) and housing have been used above to illustrate the way in which subjective assessments can enter the measurement of poverty and social exclusion, but the same applies to other dimensions, such as health, physical and mental insecurity, discrimination, and environmental amenity. In the case of health status, one could measure the capacity to carry out certain activities, where these activities are determined by response to questions about normal expectations (the first approach described above). These too may change over time. For example, work on the factory floor now requires less physical effort than half a century ago. Alternatively, people could be asked to assess their health according to a given set of criteria (second approach) or they could make a direct evaluation of their health status (third approach), where exclusion would be measured in terms of the proportions reporting themselves as in a less than good state of health, or saying they have a chronic health problem. These three approaches to the health dimension would all contain elements of subjectivity – in contrast to objective indicators such as life expectancy, peri-natal mortality, low birth weight, access to health care facilities, or the incidence of industrial diseases.

Key issues of definition: relative versus absolute

Concern for social inclusion leads naturally to a search for indicators that are defined relative to a particular society at a particular time. This is exemplified by the EU risk of poverty line defined as 60% of median income in each Member State in question. There is however much debate about ‘absolute’ versus ‘relative’ criteria. In rich countries, it is sometimes argued that there is no sense in talking about a relative poverty standard that is, as expressed by one conservative minister (Lord Joseph) in the UK, above the level of living of a medieval knight. Conversely, in a relatively egalitarian poor country, few people may be below 60% of median income, but this would miss the fact that the majority of the population has very low levels of living. On this view, a poverty standard must be fixed in terms of a basket of goods (and services), and uprated over time only in line with changing prices. Of course, even this would not be a strictly absolute poverty line, in that there is a degree of arbitrariness about the setting of the original basket, as demonstrated by the fact that when employed in practice they also tend to be updated over time to reflect changing consumption patterns - if only at irregular intervals. To

identify a purely absolute definition, one has to move to other domains, such as the rate of peri-natal mortality or the rate of premature mortality.

The controversy surrounding the absolute/relative distinction reflects the fact that it touches on two central issues of definition: the specification of the reference society, and the specification of the variable(s) of ultimate concern. These are tricky issues, and it is not surprising that different positions are taken. To begin with the reference society, one has no difficulty in saying that a boy is excluded if he is unable to join his peer group at school because he has to weed the family plot. One has no difficulty in saying that there is gender-biased exclusion if girls have to stay at home and weed, while their brothers go to school. One has no difficulty in saying that rural children are excluded if they have no school, whereas schooling is provided for their urban counterparts. In each case, there is a clear, if implicit, reference group, and the reference group is a majority, or dominant group in a particular country (or region). But suppose that the majority of children are weeding? They can only be said to be socially excluded if one shifts to a wider – cross-national (or cross-regional) - reference group. People in country X are said to be excluded because they do not complete the primary education that would be expected in other (richer) countries. This and other Millennium Development Goals can be interpreted in this way: the $1 a day poverty line has to be seen in a global context in the year 2000. It is a fixed purchasing power standard, but there is no reason to suppose that the same standard would have been established in 1900. Similarly, as qualification levels rise in rich countries, educational indicators of deprivation are shifting to secondary level.

The $1 a day line is relativised by adjustments for what $1 will buy in different economies (see above), but there is a more basic issue of the role of economic resources. If, as in the literature on household production, one sees goods and services as an input into household activities, then it is the level of activities, not goods, that is our ultimate concern. For example, an activity might be “being available for work on the labour market” or “being able to benefit fully from public education”. The goods and services needed to participate in these activities depend on the society in which one lives. What is needed in Porto Alegre may be different from what is needed in Washington or Bombay. As put by Sen, there are “varying commodity requirements of meeting the same absolute need” (1984, page 336). While the activity is defined in “absolute” terms, the input requirements in terms of goods and services depend on the particular society. “Being available for work” requires certain standards of clothing, access to transport to get to work, child care for the children, etc. The standards of clothing adequate at the time of Adam Smith are no longer sufficient in the 21st century. In some countries, a job seeker today may need a mobile phone. “Going to school”, similarly, requires different resources in different countries. Attending school in the African countryside may mean travelling much greater distances than in the urban US. What is more, the input requirements depend on the level of social provision. State provided child care reduces the money income required, as does public transport. The absolute/relative distinction has therefore different implications for “ultimate” and “intermediate” variables. The point has been made in terms of income, but the same applies for instance to education. If education is seen as an ultimate goal, then one can focus on the intrinsic desirability of different levels of attainment; if education is seen as a means of competing on the labour market, then a relative criterion may indeed be appropriate.

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13 This is close to the capability approach developed by Amartya Sen – see Sen (1985 and 1999) and Alkire (2002).
Key issues of definition: consumption versus income

The Human Development Index is constructed on the basis of Gross Domestic Product per capita, but this national income aggregate is rather removed from the experience of households. There has indeed been much discussion of the divergent growth rates of national income and household income in the case of India (see, for example, Deaton, 2005). If one concentrates on measures at the level of the household, there remains an important choice between consumption and income. As noted earlier, the EU risk-of-poverty indicator is based on disposable income. There is a *prime facie* case for such a measure in that income represents the resources available to the person, whereas levels of consumption are in part a matter of choice. One should not classify misers as poor. This choice may not however be globally appropriate: “it is frequently argued that consumption is better suited than income as an indicator of living standards, at least in many developing countries” (Duclos and Araar, 2006, page 21). (The concern here is with the decision *in principle*, not with the availability of data.)

In weighing this choice, several different arguments need to be distinguished. The first is that one should focus on the consumption of specific goods, such as food or shelter. The indicator would then become an indicator of food intake, or of housing standards. This prompts the question: “why should we focus on the actual consumer choice, rather than on the general lack of resources?” The answer is that this presumes the existence of functioning markets. Years ago, Srinivasan noted that the failure of the poor to get their basic needs “reflects not only the unequal distribution of real purchasing power, but also market imperfections and failures” (1977, page 18-19). Markets suffer from variations in quality, variations in price, and from quantity constraints. Duclos and Araar (2006, page 22) cite the example of Ecuador, where some households receive free water, whereas others, often poorer, have to purchase from private vendors. This would be missed by just measuring income.

But nor would the free water be captured by an indicator based on spending, and this brings up a second important point: that consumption and expenditure are not the same, nor do they necessarily move together. In a sense this is obvious, once we allow for home production. A family that had a good harvest may sell less food on the market and spend less on buying market goods, but consume more of its own food. But even where all purchases are made in the market, consumption may fall short of expenditure when goods are being stored, or stocks are being run down. (See below, Sub-section on “Stock and flow indicators”.)

A third consideration is that the argument has to date been based on the presumption, explicit in the quotation from Duclos and Araar (2006), that our concern is with living standards. There is however a different conception, that sees concern for poverty as emanating from a right to a minimum level of resources (which might include separate goods where these are rationed). Such a minimum rights approach, which can be traced back to theories of justice, gives a rather different perspective. For example, on a standard of living approach, it could be justifiable to give a lower nutritional allowance for women than for men (and this was indeed the case with the
first US official poverty line; U.S. Social Security Administration (2007)). On a minimum rights approach, that would not be justified if rights are equal for all.

**Key issues of definition: stock and flow indicators**

Indicators may measure stocks or flows, and it is important to keep these distinct. An example is provided by education, where one may be interested in the qualifications of those reaching adulthood and entering the labour force (a flow measure) or in the qualifications of all those in the existing labour force (a stock measure). The flow measure, in this case, is one of the determinants of the changes in the stock (the other is the qualification level of those leaving the stock). Flow measures may be more variable over time, reflecting the experience of individual school cohorts. At the same time they are more responsive to change: it may take a decade for the effects of changed educational policies to be observed in the stock measure. In the same way, life expectancy calculated using current mortality rates may be seen as an indicator of the health of the current population. It does not indicate the expected lifetime of a person just born, since it does not take account of future improvements (or worsening) in mortality.

In the case of economic resources, the distinction between stock and flow may be seen as the difference between a stock of assets and a flow of income. This is not just an accounting distinction. The two perform different functions. The flow of income typically finances current consumption, whereas the stock of assets, if any, provides security against future risk. As the World Bank has put it, “poverty means more than inadequate consumption, education and health. As the voices of the poor cry out, it also means dreading the future. [The inadequacy of their assets] restricts their ability to deal with a crisis when it strikes” (2001, page 135). With the increasing exposure to fluctuations in world trade, and the dangers of climate change, these risks to the poor are set to intensify. So that, while income (or consumption) is the main variable which has been considered when measuring poverty, we may want to consider a separate indicator based on the lack of wealth. This may take the form of an index of “precariousness” or “vulnerability”, measured for example by the absence of liquid funds on which a person could draw in the case of emergency. It may take the form of an index of indebtedness, where the person owes money or is in arrears on payment for utilities or for rent or for mortgage payments.

**Key issues of definition: static and dynamic**

Certain indicators are based on a person or household’s current status. A person is unemployed at the current date, or the household’s income is below the poverty line at the interview date. This has traditionally been the main concern of social indicators. Increasingly, however, one has become interested in dynamic indicators. As it is put by Bradbury, Jenkins and Micklewright, a child poverty rate of 10% “could mean that every tenth child is always poor, or that all children are in poverty for one month in ten. Knowing where reality lies between these extremes is vital” (2001, cover).
Indicators may be dynamic in several senses. One sense is that we are concerned with changes over time, or lack of change, for an individual. We may be concerned that a person was unemployed, or in poverty, both at date t and at date (t+1). As this example brings out, the introduction of dynamic considerations complicates measurement. We have to distinguish a situation where the person was unemployed continuously from the interview in year t to the interview in year (t+1) from a situation where he had a job in between which lasted less than a year. In other words, we are extending the period of observation, and the employment history can be summarised in many different ways. An indicator of how many people have been persistently unemployed is different from an indicator as to whether a person has been unemployed at any time in the past x years (see, for instance: Marlier, 1999). Longitudinal (panel) surveys have an important role to play in monitoring and understanding how the situation of individual persons or households changes over time, as they allow identifying the individual factors, processes and life stages associated with these changes. These advantages have however a price: panel surveys are complex to administer, they are costly and they suffer from attrition.

Social indicators may be forward-looking. People are excluded not just because they are currently without a job or income but also because they have few prospects for the future. Social exclusion is not only a matter of ex post trajectories but also of ex ante expectations. Communities may, for example, feel marginalised because they see themselves as permanently excluded from the mainstream of society. In this case, we are seeking to measure current variables that are predictors of future developments. An indicator such as low school attainment, or truancy, may be important not only in its own right but also because it increases the risk of poverty and social exclusion in later life.

**Key issues of definition: individuals, households and groups**

A natural starting point for construction of a social indicator for a country is the position of its individual citizens. If our concern is with health status, then we may sample households but we wish to know about the health of each individual member, from the newly born baby to the great-grandmother. For some purposes, however, we may wish to look at the position of a wider unit than the individual. It would not make sense to consider the baby’s income without regard to that of her parents and others. Once, however, we aggregate, a range of possible definitions opens up for the unit of analysis, making use of criteria such as the following:

a) common dwelling, with a *household* comprising those residents in a dwelling, sharing some degree of common house-keeping, but not necessarily related by family ties;

b) common spending, where the *spending unit* is defined as those taking spending decisions to a significant degree in common, where this may cover people who have no family relationship;

c) blood or marital relationship, where members of the *family unit* are related by marriage/cohabitation or by blood relations;
d) dependence, where the unit is defined to include a single person or couple plus any dependent (children and/or adults), this constituting the inner family.

These all broaden the unit beyond the individual, but we may wish to go further and consider wider groupings. These may be the extended family. In such cases, there may well be some commonality in their standards of living. The grandmother may live round the corner but eat all her meals with the family; the son may be a student with a room in the city but bring his laundry home each weekend; the breadwinner may be away working in the city but send regular remittances. We may want to consider wider kinship groupings. Here there may be less regular sharing of resources but important support networks. The standard of living of a person cannot be judged independently of these networks.

In considering groups, we should distinguish between their relevance to assessing individual standards of living and their use as analytical categories. A recurrent item on the agenda of policy-makers is the exclusion of specific groups, such as the disabled, the elderly, youth, migrants and ethnic minorities. Another example is provided by groups living in particular geographical areas, discussed in the next Sub-section. In measuring the risk of poverty and social exclusion, it is important to know how far these groups are disproportionately represented. But this is a different matter from treating the group as a whole when assessing the extent of individual deprivation. The circumstances of one disabled person do not depend on those of another disabled person with whom they are not in contact.

The implications of different choices of unit depend on the variable in question. In the case of financial poverty, the use of a wider definition tends to involve a reduction in the measured poverty rate, since more income sharing is assumed to be taking place. The student son may be below the poverty line, if considered as a unit on his own, but when his income is added to that of his parents, the total may be enough to keep all of them out of poverty. The choice between different units involves assumptions about factual matters, such as the extent of support offered by other family members, including the extended family. The great-grandmother would probably share the household’s standard of living, but a group of students living together could not be treated as a unit. It involves value judgments about the extent to which people should be dependent. A policy change which discouraged people in their 20s from leaving home might reduce measured (income) poverty but would not necessarily be regarded as a social improvement. The choice as far as world-wide indicators are concerned may also be influenced by the differences across countries in household composition. It should also be recognised that we may be interested in individual status interpreted in a household context. For example, we may wish to establish the number of individuals who are unemployed and who are living in a household with no one in paid work. This is in effect a combination of individual and household characteristics, and places particular demands on data collection.

The fact that we may wish to consider the position of a household as a whole does not imply that we should then count the number of households, weighting each household as 1, regardless of the number of members. The method of weighting is distinct from the choice of the unit of analysis. Suppose that we are considering a variable which is defined at the household level, such as poor housing, then we have the issue as to whether to
count households or individuals. Does a couple and two children in bad housing count once or four times? The fundamental concern when measuring social inclusion is with the position of citizens, and this points to counting persons. The circumstances of the households in which people live are clearly major determinants of the level of well-being of individuals, and households may be socially excluded as a whole. So, individuals should not be considered in isolation. But each person should count for one. Weighting households by the number of people leads to certain problems when measuring poverty, but in general this is the procedure that ought to be recommended.

**Territorial indicators**

Indicators may have an important territorial dimension. We are likely to be interested in how poverty rates differ across regions, or whether low education is a feature of some localities but not others. One major distinction is that between rural and urban areas. We want to know how far poverty is “clustered” in particular neighbourhoods. Can a pupil’s educational success be predicted from the Zip Code?

The degree of clustering takes on particular significance where policy has been targeted geographically. The use of such geographically targeted schemes in Latin America and the Caribbean is surveyed by Baker and Grosh (1994) – see also Barca et al (2004) and Dutrey (2007). For example, the school lunch programmes in Chile, Costa Rica and Jamaica were targeted geographically by school free milk was distributed in Peru and day care in Venezuela by neighbourhood. Area-based anti-exclusion policy is based on a set of hypotheses about the location of exclusion, and this points to the collection of area-based data. But for the same reason, the collection of household-based indicators is necessary to evaluate the hypotheses on which this policy is based.

Geography may be significant in a different way. Whereas poverty or low education are characteristics of individual households, there are other types of indicator which – it may be hypothesised - relate to a population rather than the individual. Disadvantage may be located in a community and not a property of the particular individuals who live there. Life expectancy, for example, may depend – at least in part – on the local environment, so that a person moving to another area could thereby modify his or her life expectancy.

One important reason why territorial indicators need to be considered is that a number of countries such as Brazil, have decentralised significant elements of social policy to regional, provincial or local governments. These devolved and local governments may set their own targets and may adopt their own performance indicators. There may for instance be different poverty lines by region. (See for example Verma et al, 2005.)
Gender mainstreaming

Eliminating inequalities and promoting equality between women and men is a prominent part of the UN agenda. A gender perspective should therefore be integrated into every stage of the policy process (design, implementation, targeting and monitoring, and evaluation) with a view to promoting equality between women and men, an approach referred to as “gender mainstreaming” (see Atkinson and Meulders, 2004). As rightly emphasised by the EU Manual for gender mainstreaming social inclusion and social protection policies, “gender mainstreaming is not a goal in itself but a means to achieving equality”; and “it is not concerned only with women, but with the relationship between women and men for the benefit of both” (European Commission, 2008a).

It is clearly important to capture gender differences in the social indicators already defined. For example, how many of the billion of people living on less than $1 a day are women? It is often assumed that poverty is equally shared, or at least that the calculation comes out this way, given an assumption of equal sharing of resources within the household. But the proportion of women among the poor depends on the gender composition of households. If women are disadvantaged in their access to resources, then households with more female members (such as lone mothers and widows) will be at greater risk of poverty. (See Box 2.) It is clear that all indicators of social inclusion should, where possible and meaningful, be disaggregated by gender. As expressed by the European Commission (1998), “differences [may] cause apparently neutral policies to impact differently on women and men and reinforce existing inequalities and vulnerabilities arising from other structural differences, such as race/ethnicity, class, age, disability, etc. Therefore it is important that statistics and data are broken down by sex (men-women-total)”.

Comparisons can be made across countries of the male/female differences in social indicator values. (See also below discussion in Sub-section on “Tools for policy analysis”.)

The issue of gender is important not only in terms of disaggregation but also in the definition of indicators. Choices made with regard to definitions may not be neutral with regard to gender. The first important way in which this happens is by focusing on the household as a unit. An example is provided by the measurement of poverty. In the present state of knowledge we have typically, when considering consumption or income, to treat the household as a sharing unit, but this conceals significant inequalities between women and men in control over resources. In this way, we may seriously underestimate the
extent to which poverty is feminised. Similarly, we cannot consider land titles and land access purely in household terms. We have to examine the implications for wives and daughters, since in many societies there is an important gender dimension to land rights (Razavi, 2003). Where there are multiple claims and joint titles, land rights may not only be hierarchically ordered but also gendered, with women having “weaker” rights of land use. (See also below, Sub-section on “Tools for policy analysis”.)

The second important way in which the choice of indicators may fail to be gender neutral is where they concentrate on market activities. While women may engage in significant market activity, they carry out a disproportionate amount of domestic labour and are more likely to be found in the informal sector. Similarly, in the case of the EU social indicators, the focus on paid employment in defining joblessness, rather than on a wider concept of productive contribution, is not gender-neutral.

Comparison of indicators for men and women is an important route by which evidence can be assembled regarding gender bias in the allocation of resources, access to services, and opportunities. But we must also remember those who do not appear in the statistics. As Amartya Sen has emphasised, “the terrible phenomenon of ‘missing women’ (resulting from unusually higher age-specific mortality rates of women in some societies …) has to be analysed with demographic, medical and social information, rather than in terms of incomes, which sometimes tell us rather little about the phenomenon of gender inequality” (1999, page 20).

**Children mainstreaming**

Investment in children is a widely shared priority, and this has to some degree been reflected in the construction of indicators of poverty and social exclusion. Thus, the social inclusion indicators incorporated into the EU open method of coordination are broken down by age groups, including children. The high relative poverty rates for children observed in a majority of EU countries in early 2000, when the OMC was launched, have heightened concern about child poverty. Back in 1999, Tony Blair, when Prime Minister of the United Kingdom, set the objective for his government of abolishing child poverty by 2020. In the same way, one can ask how many of the billion living on less than $1 a day are children?

These concerns have furthermore led to calls for what has been termed as *children mainstreaming* (Marlier et al, 2007). Use of this term does not imply that children should necessarily have priority over, say, the elderly; and it is in fact essential that, where possible and meaningful, all social inclusion indicators be provided not only for children but also for other broad age groups (e.g. youth, middle-age and elderly). Rather, as with gender mainstreaming, child mainstreaming needs to be approached from a different perspective. It has to give a different “cut” through the problem of constructing social indicators. The approach is not simply to disaggregate by age but to ask: “what indicators would best serve the needs of children?”. There is, for example, a good case for considering measures of child health, child development or, more
broadly “child well-being”. The Millennium Development Goal 4 is indeed concerned with under-5 mortality. In Australia, Saunders and Naidoo contrast the two approaches:

“There are two ways in which to identify how social exclusion affects children. The first involves using indicators that are generally applicable and examining their incidence among families with children. The second involves focusing on that sub-set of indicators that relate more specifically to exclusion among children. We have adopted the latter approach here ... it is possible (indeed likely) that parents and their children experience different forms of social exclusion” (Saunders and Naidoo, 2008, page 7).

In considering child-focused indicators, it is important to recognise that there may be differences between the interests of children and the interests of the parents who often make choices on their behalf. An obvious example is where the parents require that the children work on the family farm or in the family firm, but the children’s interests would be better served by their continuing in school. There may be a trade-off between the aim of avoiding poverty for the family and the inclusion of the child (and his or her intergenerational mobility). The two sets of considerations have to be decoupled. The choice/interests dichotomy is one reason why children have been singled out here for special consideration.

In the European Union, this work has been taken forward by the Task-Force on Child Poverty and Child Well-Being, whose report has been published in 2008 (Social Protection Committee, 2008). As noted in the report (page 13): “In 2005, 19 million children lived under the poverty threshold in the EU-27, meaning that 19% of children were at risk of poverty, against 16% for the total population. (...) In most EU countries children are at greater risk of poverty than the rest of the population (...). In almost half of the EU countries, the risk of poverty for children is above 20% (...). The ambitious recommendations put forward in the report, with a view to better monitoring and assessing child poverty and well-being at EU as well as national and sub-national levels, were all endorsed by the European Commission and the 27 Member States. 14 (See also: Engsted Maquet and Guio (2008); Frazer and Marlier (2007); Frazer (2006); Guio and Museux (2006); Hoelscher (2004); Whiteford and Adema (2007).)

IV. How do we measure?

The British pioneer of statistical poverty measurement, Sir Arthur Bowley, stated that “there is, perhaps, no better test of the progress of a nation than that which shows

14 In line with a point made above, namely that it is important to be aware of the differences that may exist between the interests of children and those of their parents, one of the Task-Force recommendations reads as follows: “There is increasing realisation of the potential interest of interviewing directly children on their own experience and perceptions of poverty and well-being. However, a number of methodological, legal and ethical issues need to be addressed to ensure that such information can indeed be collected throughout the EU. National know-how and good practices in this area should be gathered on the basis of which Member States could then best explore the possibility of implementing these surveys among children at (sub-)national level.” Giving attention to the views of children themselves is an important element in a children’s rights approach but this aspect remains very underdeveloped even in rich countries.
what proportion are in poverty; and for watching the progress the exact standard selected as critical is not of great importance” (1923, page 214). On the one hand, one can sympathise with the first part of this statement, even though we need to ensure that it is a wider multi-dimensional approach to measuring social exclusion that is adopted. As to the second part of the statement, one can only disagree strongly with it: the choice of indicator is of considerable importance. In particular, as explained in Section II, the design of the indicators depends on the question to be answered. This applies both to the individual indicators and to the structure of a set of indicators.

A principle-based approach

The design of indicators is crucial because of their political salience. For this reason, it is essential that the design be based on a set of principles, where these principles are of greater generality than the current policy concerns. It is this approach that was already advocated in Atkinson et al (2002) and which underlay the social indicators adopted as part of the EU Social Protection and Social Inclusion Process. Some principles concern the single indicators whereas others concern the portfolio as a whole. This Sub-section begins with the principles that apply to single indicators.

The first principle is that an indicator should identify the essence of the problem and have a clear and accepted normative interpretation. Translation of policy goals into quantitative measures inevitably means that we have to focus on certain aspects of the problem to the exclusion of others, but this should be done in such a way that it encapsulates the central concern and is not misleading. The indicator should be recognised as meaningful by users of all kinds. Indicators must be acceptable to the general public. This implies that the general principles of the method used must be understandable. For this reason, it is important to adopt a participatory approach to the construction of performance indicators, involving the civil society and, in particular, those at risk of poverty and social exclusion and organisations which represent their views. Local ownership may contribute to promoting social inclusion. Overall, the indicators must have intuitive validity. The indicators should produce results that seem ‘reasonable’ to citizens. A poverty indicator for the US that showed over half the population to be poor would be regarded as grossly inflated. Moreover, the indicators should be selected to have a clear normative interpretation. The indicators underlying the Millennium Development Goals are used because there is a political commitment to achieving specific goals. There is general agreement that a movement in a particular direction represents an improvement. This would not necessarily apply to all social indicators: for example fertility, where countries may be favourable to either higher levels of fertility or lower levels of fertility, or may also be neutral with regard to this issue.

The second principle is that an indicator should be robust and statistically validated. An indicator should be measurable in a way that commands general support. The data employed should be regarded as statistically reliable and should avoid arbitrary adjustments. Where data are derived from sample surveys, these surveys should comply with the best practices and highest standards of survey research methodology (see below). The methods adopted should minimise errors caused by ambiguous questions, misleading definitions, bias due to non-response and to interviewer or coder mistakes.
Indicators should as far as possible be validated by reference to other evidence. Indicators derived at a world level should be cross-checked against information available at the level of individual countries. Any indicator will necessarily involve some error but it should not be systematically biased. It must also be statistically reliable over time in the sense that results must not be liable to unpredictable or inexplicable fluctuations. We should avoid measures that are subject to political manipulation, such as those that involve arbitrary cut-offs, where a country’s score can be artificially improved by focusing policy on those close to the cut-off, or those that are based on an arbitrary defined basket of goods and services. Throughout the analysis, we have to bear in mind that the circumstances of those suffering poverty or social exclusion (for example, at the bottom of the income distribution and/or unemployed and/or living in institutions and/or homeless) are among the most difficult to measure statistically (see the discussion below).

The third principle is that an indicator should be interpretable in an international context. This principle is motivated by considerations of comparability, but reflects the demands that this imposes at a global level. Even among countries at a similar level of development, full comparability is an ideal that cannot normally be attained, since, even where data are harmonised across countries, variations in institutional and social structure mean that there may be differences in the interpretation of the data. The aim should be to reach an acceptable standard of comparability. When we consider countries at very different levels of development, then different approaches to indicators construction may be justified. For example, the EU 60% of median income standard can co-exist with the $1 a day MDG. Figures for the UK on the former basis and for China on the latter basis cannot be compared, but we can make sense of the two figures (and particularly of changes over time). Two considerations seem particularly important. The first is development at the statistical level. Where needed and possible, countries should be encouraged to develop their statistical information to improve the degree of comparability; and consideration of the quality and design of social indicators should influence the plans for improved or new statistical instruments. The second important consideration concerns the choice of indicators. Some indicators are more sensitive than others to differences across countries in their social structure. For example, an indicator of poverty should be equitable between countries with differing size of rural populations and hence differing degree of production for home consumption. Imputed rent on owner-occupied housing (i.e. what rent owners save by owning their own houses or apartments) is another example. Differences in the extent of owner-occupation across countries mean that its omission has a differential effect. We should avoid indicators that are over-sensitive to these structural differences or which raise specific problems of interpretation for particular countries. Even for those indicators that satisfactorily meet this third principle, it is essential to always keep in mind the need for what has been referred to above as “contextualised benchmarking”. Indeed, specific policies and their impacts measured through indicators can only be properly understood in the context of the broad institutional setting in which they operate. For example, measures of labour market participation or unemployment may have different meaning in different labour markets depending inter alia on the (sub-)national labour market regulation and collective bargaining arrangements. A “system-wide analysis” is required for proper international benchmarking. (On the importance of “contextualising” the analysis, see for instance: Sakellaropoulos and Berghman, 2004 and Vandenbroucke, 2002.)
The fourth principle is that an indicator should reflect the direction of change and be susceptible to revision as improved methods become available. In many cases, the level of social indicators serves to highlight the importance of the problem, but in terms of policy it is changes over time that are crucial. In the case of the Millennium Development Goals, the $1 a day benchmark set the scale of the challenge, but it is changes over time that are being closely monitored – see for example the Global Monitoring Report (World bank, 2008). The timescale is of course longer than that in the macro-economic field, where politicians have become accustomed to receiving highly current information. In the field of poverty and social exclusion, the changes we are seeking may take a decade or longer (the MDG horizon for poverty reduction is from 1990 to 2015). Revision not only of data but also of the underlying concepts is equally important where advances are made in understanding and where there are changes in policy concerns. Ideally it should be possible to chain the indicators before and after revision. A good example of the need for revision is provided by the new estimates of purchasing power parity (PPP; see above) adjustments being produced by the International Comparison Programme. As is noted by the United Nations, “these new measures of the relative cost of living among countries will require a revision to the international poverty line and may change our understanding of the extent and distribution of global poverty” (United Nations, 2007, page 7).

The fifth principle is that the measurement of an indicator should not impose too large a burden on countries, on enterprises, nor on citizens. The design of social indicators should, wherever possible, make use of information already available. Where new information is needed, then it should as far as feasible be obtained using existing instruments, for example by adding questions to existing surveys or by making use of administrative and registers’ data. (See below, Sub-section on “Developing statistical capacity”.)

**Principles applied to whole portfolio of indicators**

This Sub-section turns now to the principles to be applied to the composition of the whole portfolio of indicators. The term “portfolio” refers here to a set of indicators. Later, the case for combining indicators into a single composite index such as the UNDP Human Development Index is also considered. It should be stressed that the focus here is on principles; the actual portfolio may be seriously constrained by data availability.

The first principle is that the portfolio of indicators should be balanced across the different dimensions. No set of indicators can be exhaustive, and there are costs in terms of lost transparency from having too extensive a range of indicators. From the standpoint of international comparisons, or the measurement of progress over time, too large a set of indicators risks losing credibility, if countries can simply pick and choose. A selection has therefore to be made. This selection should ensure that all main areas of concern are covered and should take account of differences across countries in the importance they attach to different areas. Some may be particularly concerned about precariousness in the labour market; other countries may have attached national importance to the reduction of child poverty. It is important that the portfolio of indicators should command general support as a balanced representation of concerns about poverty and social exclusion.
The second principle is that the indicators should be mutually consistent and that the weight of single indicators in the portfolio should be proportionate. Mutual consistency is an evident requirement. The term ‘proportionate’ refers to the fact that the interpretation of the set of indicators is greatly eased where the individual components have degrees of importance that, while not necessarily exactly equal, are not grossly different. It would be hard to make sense of a set of indicators that lumped together measures of central importance, such as national poverty rates, with indicators which would generally be regarded to be of a more specialised or more local interest.

The final principle is that the portfolio of indicators should be as transparent and accessible as possible to citizens. At present there is a great deal of public confusion about the form and purposes of social indicators. It is therefore important that indicators should be easy to read and understand. This applies to the individual indicators and to the set as a whole. We have also to be aware of the temptation to aggregate indicators. Journalists writing about trends will tend to count plus and minuses. These considerations may well affect the range of indicators and the total number included. Too large a number of indicators would mean that the exercise lost both transparency and credibility. Dissemination of the results of indicators, and of accurate information about their methods of construction and possible limitations (metadata), is therefore an important task. In this process a key role is to be played by non-governmental organisations and by the scientific community.

The above list of principles is open to debate, but making them explicit should aid the development of social indicators. The next challenge is to implement them in practice.

Data for social indicators construction

The construction of social indicators is necessarily a compromise between the theoretical definition and the empirically possible. Data may simply not be available, or may not be of adequate quality, or the available data may not be sufficiently comparable across countries (or even within countries) or across time. The collection of data may be too expensive, too burdensome on persons or enterprises, or may face constraints in terms of public acceptability.

In many respects, the availability of data is much better today than in the past. As is brought out by Deaton (1997, Chapter 1) this is a world-wide development. The first household surveys may have been conducted in Europe, but one of the first large-scale scientific surveys was carried out by Mahalanobis (1946) to estimate the size of the jute crop in Bengal in 1941. Since then there has been a great improvement in the coverage of sample surveys, thanks very much to the efforts of the UN and other international agencies. In its 2000/1 World Development Report, the World Bank noted that “85 percent of the developing world’s population lives in countries with at least two household income or expenditure surveys” (2001, page 20). Without such surveys, it would be impossible, for example, to make any estimate of the number of people living on less than $1 a day. In the health field, the World Health Organisation (2007) publish
statistics on health inequities showing the variation by place of residence and wealth level of under-5 mortality and stunting covering a large number of developing countries.

At the same time, we have to recognise the considerable distance that has yet to be travelled. A Roundtable on “Measuring for Development Results” took place at Marrakech in February 2004, where agreement was reached on a global plan for statistics (the Marrakech Action Plan for Statistics). The actions envisaged included the preparation of national strategies for the development of statistics, an international household survey network, and increased financing for statistical capacity building. Two years later, a forum on African statistics development reviewed progress, and concluded that significant data gaps remain see Box 3).\(^\text{15}\)

<table>
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<th>Box 3: An accelerated data programme required for Africa, which builds on the “Marrakech Action Plan for Statistics”</th>
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<td>In a report summarising the outcome of a forum on African statistics development, the World Bank emphasised that: “only 62 per cent of the population of low income countries in Africa resides in a country that has conducted a nation-wide poverty survey between 2000 and 2004. [Only 53 per cent] live in a country that has conducted a census since 1995, compared with 99 per cent of European residents” (2006, page 1).</td>
</tr>
<tr>
<td>The report draws attention to the cost of data collection, estimated at $1 per person for a population census and $950,000 for a living standards measurement survey.</td>
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Availability is one issue; a second issue is that of quality of data sources. In considering this, it is important, first, to underline that our concern here is with the entire population. This should be emphasised, since a number of statistical sources leave out important groups. Surveys are often limited to the household population. This leaves out those living in institutions, such as students and the military, and those living in hostels or shelters or reception centres. It leaves out the elderly living in residential accommodation and children taken into care by public authorities. It leaves out those living on the streets. Surveys may also exclude by their design other groups, such as non-nationals, or those living on boats or in caravans. Whatever the limits imposed by data collection, it is imperative when considering poverty and social exclusion not to lose sight of these groups, which may require specific data collection tools and techniques.

Secondly, we have to consider the sample survey methods. The design of the fieldwork, the expertise and supervision of the interviewers, the length and adequacy of the questionnaire, and the processing of the data can all affect the quality of the measurement or the representativeness of the sample. Results of different surveys may diverge simply because of sample fluctuations. Sampling merely allows one to draw conclusions about a characteristic of the population with a certain degree of (un)reliability. This must be taken into account and it is always advisable to provide sampling errors for key estimates from sample surveys. The accuracy and reliability of

\(^\text{15}\) The Marrakech Action Plan for Statistics is part of the Managing for Development Results (MfDR) strategy, which focuses on using performance information to improve decision-making. MfDR involves using practical tools for strategic planning, risk management, progress monitoring, and outcome evaluation.” (http://www.mfdr.org/)

sample-based estimates depends primarily on the sample size and efficient design. There are, moreover, elements in the conduct of surveys which especially affect the measurement of poverty and social exclusion. These include the degree of non-response. Almost inevitably, a number of interviewees will refuse to participate in the survey, or they may be either unreachable or untraceable. This implies fewer available cases, and therefore less efficient sample-based estimates, but more important is the possible under-representation of precisely those groups of citizens who are particularly at risk of poverty and social exclusion. To the extent that non-response is selective, i.e. that its occurrence within a specific category is more than proportional, it will provide biased estimates of the scale of the problem. This shortcoming is particularly apparent in panel surveys, as with each wave there is inevitably some attrition. In the case of India, Deaton (2005) argues that the lower response of rich households causes survey-based estimates of poverty to be over-stated, and presents evidence suggesting that the response rate now declines more rapidly with income.

It is invariably the case in surveys that a number of respondents fail to answer certain questions. Situations where respondents either refuse or are unable to answer certain questions that apply to them are referred to as item non-response. Questions which respondents experience as sensitive or difficult to answer tend to generate greater item non-response. This is often the case with questions about income. Item non-response reduces the number of cases that can be included in the analysis. Again, non-response may be greater among groups most at risk of poverty and exclusion: for example, those in the informal sector or in remote areas. If item non-response is selective, it can give rise to biased estimates. If item non-response is systematically greater within specific population segments (e.g. large households, self-employed, high income households, etc.), it may cause biased income and poverty figures. For this reason, it is usual in surveys to correct by means of imputation procedures for item non-response. In such imputation procedures, a respondent with non-response on a variable is attributed a value on the basis of (similar) respondents who have responded to that item. There are various imputation procedures of varying quality. The higher item non-response is, the more important the quality of the imputation procedure.

A further problem is that survey results may be disproportionately affected by outliers: for example, very high or low (negative) values for income or other variables. These outliers may simply arise on account of sampling variability, but they may also suggest shortcomings in the data. An independent worker, for instance, may record a large loss in a particular period, but this may reflect the particular accounting practice. Large incomes or large losses may be purely transitory. For these reasons, it is a common practice to apply top-coding or bottom-coding to income and other data. The former means that all incomes above $X are entered as $X, and bottom-coding applies the same procedure in reverse at the bottom of the distribution. But the latter procedure may conceal what is happening among the group of most interest. (See for example Van Kerm, 2007.)

In using sample surveys as the basis for social indicators, it is important to bear in mind that “even where ‘good’ survey data do exist, serious and often quite subtle issues of comparability and measurement still abound” (Strauss and Thomas, 1996, page 30). It is important to remember these issues when conducting (national or international) analysis,
and small differences in the indicators between countries, or over time in one country, should not be given too much emphasis. In this context, it is worth emphasising the importance of collecting and publishing quality documentation (metadata), which can greatly help with the correct interpretation of survey results.

In considering the data for social indicators construction, we need to be sure that the data sources allow to distinguish the sub-groups of the population relevant to policy analysis. As noted above, a recurrent item on the agenda of policy-makers is the poverty and social exclusion of specific groups, such as the disabled, the elderly, youth, migrants and ethnic minorities. We need, for instance, to know whether the disabled are at greater risk of poverty, and what fraction they constitute of the total population at risk of poverty. How far is poverty concentrated on certain ethnic groups? For example, the Asian Development Bank reports that between 1993 and 2004 “households belonging to scheduled castes and scheduled tribes have seen their per capita expenditures grow more slowly than those of other households” (2007, Section 5). (Scheduled castes are the bottom rung in the Hindu caste system; scheduled tribes are outside the caste system.) In order to make such comparisons, the sample sizes have to be sufficiently large.

**Broadening the field**

There are further features of data collection that are relevant to the construction of social indicators, which may take us beyond the range of data currently employed. One is the salience of contextual data. An important trend in the study of social inclusion is to consider people in their context. We may wish to interpret a person’s situation in the light of the community in which they live. A person who is unemployed in a town in which unemployment is very rare is in a different position from that of a person whose neighbours are all unemployed. There would be considerable value, for example, in associating the national surveys with studies of particular cities, matched across countries. These studies may collect not only quantitative but also qualitative information. As indicated by the *Expert Group Meeting on Creating an Inclusive Society*, “Because social inclusion (…) is a multi-dimensional concept/phenomenon, there is a need for a multi-method approach to understand it, and measure it. This requires a combination of qualitative and quantitative methods, drawing from a range of disciplines. Qualitative methods are important for unpacking the processes behind the figures/numbers. A multi-method approach would help overcome the universal/national/sub-national tension in exploring a complex phenomenon such as social inclusion”. (See also above discussion on the need for contextualised international benchmarking.)

Secondly, as already noted, we need to pay particular attention to the position of people who are not part of the household population: e.g., those living in institutions, those in the armed forces or in prison, and those who are homeless. This is a heterogeneous group, but includes some of those most at risk of poverty and social exclusion. Statistics based on household surveys miss this group, and we need to consider ways in which its members can be covered. This will require a significant investment, but is of great importance.
These concerns point to the use of data in addition to those from household surveys. We may wish to relate the person’s situation to the employment context, linking data on households and employers. Such linking is becoming increasingly possible as new techniques are developed for handling very large datasets. Reference should be made here to national register systems. In a number of countries, especially the Nordic ones, there are national registers where a great deal of information can be assembled from the administration of income taxation, social security records, employment services, local government, etc. Register sources have the advantages of relatively low cost and of reduced burden on respondents. In the present context, a further important advantage of register data is that of speed. The need for timeliness is one of the major constraints on the choice of social indicators. The use of such sources may encounter major legal problems as well as difficulties in terms of public acceptability, but they offer a potential way forward. And it should be remembered that new technology offers the possibility of new safeguards as well as new data linkages. At the same time, we should note that even for those countries using extensively register information, household surveys will be required in order to obtain qualitative information.

V. How do we make it happen?

Considerable progress has been made in developing the principles underlying social indicators, in refining the individual measures, and in establishing the data requirements. But how can these be made a reality? How do we make it happen? Putting into effect indicators of poverty and social exclusion is a challenge.

Mobilising all the key actors through a participatory approach

Support and advocacy for building more socially inclusive societies must reach beyond public authorities. In order to generate this support, countries/communities should consider building partnerships involving all the key actors, in accordance with national/community arrangements and traditions. Such partnerships should promote complementary strategies for change, addressing the broad range of policies concerned – economic, social (including education, housing, health...) and environmental. These strategies should be reflected in clear national/community policies and objectives and should be taken into account by public authorities.

A participatory approach, at the sub-national, national and international levels can significantly contribute to disseminating knowledge and to ensuring greater transparency and awareness of the social inclusion objectives; it is a necessary condition for making the process credible and meaningful, both politically and popularly (see, for example, Bennett and Roche (2000)). It is therefore crucial that all aspects of the (national/sub-national and international) work on social inclusion are as open as possible to the active participation of the regional and local public authorities, the different non-governmental actors and bodies involved in the fight against poverty and social exclusion, including social partners, non-governmental and grass roots
organisations (at international, national and sub-national levels), and the poor and socially excluded people themselves. Structuring and supporting such participation has to be a key component of national/community strategies. At the same time, this is not easy to achieve. In its report for the 2000 Social Summit, the UN Research Institute for Social Development (UNRISD) noted that

“although most donors and multilateral agencies now stress the importance of working with and through civil society organisations, political and institutional constraints at international, national and local levels often limit the effectiveness of civil society both in advocacy and in service delivery. International development and financial institutions have not fundamentally changed their governance structures to permit greater participation by civil society” (UNRISD, 2000, page ii).

It is important that a participatory approach be also adopted for the construction of performance indicators. Overall, the indicators must have intuitive validity and produce results that seem ‘reasonable’ to citizens. As emphasised earlier, an important dimension of social exclusion is concerned with the lack of voice, power and representation. It would be ironic if the adoption of social indicators of poverty and social exclusion were to add to the sense of powerlessness. In this respect, social inclusion policy can build on the experience in other fields (see Box 4). At the same time, experience with participatory approaches, has also highlighted how difficult it is to change the balance of power.

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<th>Box 4: Participatory approach – Learning from the experience in other fields</th>
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| The subject of forest management may seem far removed, but there are lessons to be learned about the role of community involvement, as for example in Mexico (see Bray et al., 2003). Closer to social inclusion are the experiences in community participation in China in rural development projects (see Plummer and Taylor, 2004). Similarly in China there has been a reconsideration of the role of the local community as a unit in urban governance (Shin, 2008).

The management of health programmes is another area. In Uganda, for instance, the Health Sector Strategic Plan is concerned with “mobilising community empowerment, participation in the management and monitoring of health facilities” (Atieno and Shem, 2007, page 188).

Careful thought has therefore to be given as to how participation can be made effective. For example, policymakers can consult on the determination of the poverty line and its interpretation. In New Zealand, for instance, there has been such consultation with the Maori and Pacific Island peoples (Waldegrave and Stephens, 2000). In Tanzania, the National Strategy for Growth and the Reduction of Poverty (Mkukuta) has set three clusters of goals based on extensive consultation with a wide range of stakeholders. Progress towards these goals is being monitored by, among other instruments, a “Views of the people” survey (Ministry of Planning, Economy and Empowerment, 2007). Taking a particular poverty threshold to be applied in an international study, one can ask what this implies in terms of the actual standard of living achievable in each country. So, in the case of the EU risk of poverty criterion, the question to be answered would be: What can a family on 60% of the median income, adjusted for its household size, in each country actually consume? Contextual quantitative information on household budget expenditures could be provided to help understand the living standard achievable at the at-risk-of-poverty threshold in each Member State. (It would also help investigate the potential problem with purchasing
power adjustments already mentioned above.) Moreover, this could valuably be supplemented by qualitative information on how people “at risk” actually live. A good example is provided by the study *This is How We Live*, prepared by the International Movement ATD Fourth World (ATD, 1995), which describes the lives of the Hirt family in Germany, Doña Matilda in Guatemala, the Jones-Robinson family in the US, the Santituk family in Bangkok and street children in Burkina Faso. Such an approach would make more meaningful the otherwise arcane statistical procedures on which the risk-of-poverty indicator is based. It would be a good means by which governments could engage those experiencing poverty and social exclusion. (In the case of the EU, see, for instance, the *European Round Table on Poverty and Social Exclusion* and the *European Meetings of People Experiencing Poverty* organised annually in the context of the social EU Social Protection and Social Inclusion Process – Marlier et al (2007).)

**Creating trust**

Social indicators can play an important political role. They can influence the allocation of funds, or be perceived as having an influence. It is therefore important that there be a high level of confidence in their validity, and that they should not be seen as subject to political manipulation (see above, Sub-section on “A principle-based approach”). In many countries there have been long histories of mistrust in official statistics. Controversy has surrounded, for example, the construction of consumer price indices or unemployment figures. When designing social indicators, care must be taken to ensure that the results are trusted by the public and civil society.

In part, this is a question of the institutional structure. The independence of the statistical agencies – just like that of the judiciary - is an important element in the functioning of democratic societies. Ensuring independence is not straightforward, as the agencies depend on the government for resources, and there has to be accountability. One route taken by some countries is to make central statistical offices answerable to parliament rather than to ministers. Another route involves the formulation of codes of practice, covering such matters as quality assessment and publication of statistics. A role can be played by international agencies in supporting central statistical offices and in providing external criteria by which their work can be validated. But much depends on civil society.

In part, this is a question of the design of the indicators. In defining components of the social indicators, consideration must be given to the perceived reliability of the underlying data. Moreover, confidence in quantitative indicators may be enhanced if they are accompanied by qualitative evidence. Qualitative evidence helps interpret the numbers and provides some reassurance that they correspond to reality on the ground. And quantitative indicators can be designed to react more closely to the concerns of individuals. A good example is provided by the gap that appears to exist between macro-economic measures of income growth and the changes in living standards perceived by households. In the case of India, for example, in the 1990s growth in per capita household expenditure recorded in the National Sample Survey was much lower than the growth in per capita GDP recorded in the national accounts (Asian Development Bank, 2007, Box 5.1). In this context, the use of survey questions about...
subjective perceptions can add to our understanding, and, possibly, help raise confidence in the accounting measures. For objective indicators too, the broadening beyond purely financial poverty serves to bring the social indicators closer to everyday experience. People may relate more directly to indicators of poor housing or poor sanitation than to measures of total income.

**Clear social inclusion objectives, with related quantitative targets and strategies**

It is important that countries adopt an *objective-driven* approach to the fight against poverty and social exclusion. They ought to concentrate on a carefully selected **shortlist** of key national policy objectives, expressed in terms of social outcomes and - if appropriate - framed according to the relevant common objectives agreed internationally (e.g. the Millennium Development Goals or, in the case of the EU, the common objectives adopted for the EU Social Protection and Social Inclusion Process). These objectives should result from a **diagnosis** of the causes of poverty and social exclusion in the country concerned. In this highly focused framework, social inclusion strategies should then solely consider those policy measures aimed at realising the short-listed national priorities, while keeping in mind the need to address all the relevant policy domains in deciding on the measures to be implemented as well as the importance of implementing gender mainstreaming and children mainstreaming (see above). The selection of policy measures should systematically be based on **ex ante** impact assessments. Countries would therefore need to develop their own social inclusion monitoring framework, responding to their national specificities, and including targets and indicators built on reliable and timely data. This national framework should allow clear links with the overall worldwide framework (along the lines suggested in Figure 1). For this, countries would also need to build the required statistical and analytical capacity (see Section VI below).

Once these policy measures are adopted, **headline** outcome targets should be set, with the number of such targets having to be small for them to make a political impact; they need to represent concrete statements of purpose and to contribute to awareness raising. As appropriate, headline targets should be complemented by more **detailed** targets covering very specific aspects, and by **intermediate** targets for the time-span of the measures (to allow progress to be assessed and to serve policy planning purposes); they could also usefully be linked to relevant input targets. All those outcome targets (and possible related input targets) should be linked to concrete indicators for monitoring progress towards achieving them; some (not necessarily all) targets should ideally be framed in terms of the commonly agreed indicators. For this to be possible, strategies put in place by countries will need to be broad. As much as possible, they should follow a multi-dimensional approach cutting across and integrating a range of policy domains, calling for **joined-up government** (at and among the different policy levels\(^\text{16}\)) as well as the **active participation** of all the relevant actors (see above). There has to be widespread “ownership” of the social inclusion strategies.

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\(^{16}\) The importance of coordinating -where appropriate- national, regional and local social inclusion strategies (and possible related targets) needs to be emphasised.
This clearly represents a challenging task for countries, not the least because it requires that they combine a multi-dimensional with a focused approach, in order to create a number of truly integrated strategies. For this, using the internationally agreed common objectives as their analytical framework (if relevant), they have to carry out a thorough multi-dimensional analysis of the national situation with regard to poverty and social exclusion across all important areas. On the basis of this analysis, they should then select a shortlist of three or four key national policy objectives for the period concerned (e.g., 2010-13). Finally, for each key national objective, they will have to develop an integrated strategy, looking explicitly at how each main policy domain can best contribute to addressing it and how the different policy areas can mutually reinforce each other. Academic research can play an important role, particularly in the diagnosis of the causes of poverty and social exclusion and in the analysis of the impact of policies on social outcomes.

In the context of the EU open method of coordination, the European Commission and the Member States have reflected on the characteristics to be met by quantitative targets for them to be useful. They have agreed to the following list, which can provide helpful guidance for the worldwide exercise suggested in this study. A quantitative target needs to be:

- **ambitious but achievable**: a target should imply significant progress but should also be realistic;
- **relevant**: achieving the target should contribute significantly to meeting a key objective;
- **intelligible**: a target should be understandable and should make sense to the average person;
- **quantified and measurable**: a target should be specific and the data should be available to measure whether it is being achieved;
- **time specific**: the period of time over which it is intended that a target should be achieved should be specified.

**Mainstreaming social inclusion and related need for systematic social impact assessment**

The key question that is briefly addressed here is how progress can be made towards better anchoring the social inclusion goals in all relevant domestic policies. In the previous Sections, a number of the key elements – diagnosis, policy evaluation, definition of outcome indicators and outcome targets – have been identified; here, suggestions are made as to how these can be used to help implementing effective national and sub-national strategies to combat poverty and social exclusion.

For countries to ensure stronger governance on social inclusion issues, they need not only to mobilise all the actors concerned (see above); they also have to mainstream social inclusion goals at all levels of governance – local, regional, national and (when relevant and possible) international. Given the multidimensional nature of poverty and social exclusion, it is essential that all relevant policies (employment, economic, fiscal, budgetary, social, health, cultural, education and training,
environmental, agricultural, urban planning...) and all the key actors concerned contribute to the efforts to create greater social inclusion.\footnote{On the issue of mainstreaming social inclusion, see Combat Poverty Agency (2006) and O’Kelly, K (2007).}

In order to achieve a real interaction between these various policy areas, \textit{mainstreaming of social inclusion} in policy making has to be implemented through establishing a scheme of systematic policy assessments (both \textit{ex ante} and \textit{ex post} assessment). To this end, the impact on social inclusion of all relevant specific policies should be systematically monitored, so as to identify possible ways of adjusting such policies to strengthen their contribution to promoting social inclusion.

In short, social inclusion objectives should be better integrated with general policy design, implementation and budgetary decision-making. Instruments such as poverty proofing and social impact assessment have a major role to play in this context.

\section*{VI. Capacity building}

\textit{Developing statistical capacity}

In considering the development of measures of poverty and social exclusion, consideration has to be given not only to the data themselves but to statistical capacity building more generally. The construction of social indicators, and their maintenance on a regular basis, depends on there being a highly qualified staff of statisticians and computer specialists in each country. Past experience has shown that data weaknesses arise when there are problems of communication between data producers and data users. Apparent differences in results can often be traced to differences in procedures and definitions, and attainment of a high level of comparability depends on close cooperation, which in turn depends on the available manpower in (sub-) national statistical agencies and other government departments in charge. Equally there is a need for adequate resources, human and material, to be made available to the central body assembling the data. To this, the need for wider diffusion of quantitative skills in the research community should also be added (academic, private research institutions, enterprises). In short, one needs to emphasise that the building of statistical capacity is an essential investment.

The above discussion of data sources has highlighted the role of sample surveys, but the statistics needed for calculating social indicators may be generated from different sources, including population and housing censuses, administrative records, employer records, etc. This implies that there is a need for a statistical system that draws together, analyses and validates these different statistical sources. Often there has to be important work of reconciliation. Here national statistical offices play a central role, in conjunction with international agencies. There is often the need to
engage different government departments, including from local and regional
governments.

Directly linked to the issue of statistical (and analytical) capacity building is the
one of \textit{data access arrangements}. The process of data being widely used by
researchers, which requires, in particular, reasonable pricing conditions as well as
appropriate documentation on survey and data processing, is an important route by
which data are assessed and problems identified. Such use serves to raise the visibility
and public acceptance of the data source. In this way, the data are embedded in the
scientific community. As was highlighted by Belgium, when it was holding the
Presidency of the EU in the second half of 2001: “Use of data by the scientific
community leads indeed to significant improvement of the data and documentation; the
data access issue is therefore also linked with data quality improvements” (2001
Belgian Presidency, information paper submitted to the EU Council of Social Affairs
Ministers of 8 October 2001).

\textit{Using indicators}

How can the social indicators be used in the process of policy formation? Four
main respects can be identified. These may be best understood by the aid of the
schema set out in Figure 1, which starts from national objectives, although we should
recognise from the start that there may be different levels of government within the
nation state. Different regions may have different priorities. The objectives of national
governments are likely to overlap to a considerable extent, even where there is no
formal concertation. Where there are groupings of states, as in regional trade blocs,
these may have explicit common goals. And there are world objectives such as the
MDGs.
The definition of the social indicators follows from the objectives, but how can they be used in the development of policy to achieve these objectives? The first use of the indicators is forensic. Applying the indicators to internationally comparable data (left hand part of Figure 1), we can learn about the differential performance of different countries. There are of course dangers in reading too much into “league tables”, as discussed below, but they provide an initial point of inquiry. If a country, or a group of countries, has systematically had greater success in raising school attendance, then this pattern should be investigated. The UN or the World Bank can learn from the differing experience of different countries. To go further, and to draw conclusions about the policies applied, we need of course to carry out a comparative policy analysis, discussed in the next Sub-section.

The results of such a comparative analysis of performance, carried out at an international level, provide a valuable cross-reference for national assessments of performance, and this is a second role for indicators. The establishment of commonly agreed indicators may lead countries to initiate the measurement of their national performance, possibly using national data sources, in which case there may be issues of reconciling the results reached from different sources. If indicators produced by the United Nations, UNDP or other UN agencies show poverty as rising in a country when national statistics show a fall, there will undoubtedly be political problems. The experience of the EU shows that these problems are real, and lead to debate about the choice of definitions, but that they can be resolved.
Social indicators may also be used by regional and lower-level governments. This too may lead to political conflict, particularly where resource allocation (for example sharing to tax revenues) is affected by the measurements. But it may also lead to an increased degree of joined up government. Policies to combat poverty and social exclusion are often the responsibility of multiple levels of government, and there may not be a clear line of sight between those who set national objectives and those who deliver the policy on the ground. This is a third role for social indicators which may contribute to coordinating policy. Achievement of policy objectives requires that different levels of government work within a common framework. The same applies to coordination across government. Delivery of improved health depends on a number of different government ministries. There is overlap between education and health. Policies to integrate young people into the labour market affect inter alia the education and the employment ministries.

The final application of indicators is to the explicit setting of targets. In some cases, as with the MDGs, the targets come first. The same can be true also at a national level, as with national anti-poverty strategies. But in other cases, governments have moved more cautiously, beginning with indicators. The EU in its Lisbon Strategy had both approaches – targets for employment and indicators for social inclusion. But the latter can clearly pave the way for the former. (See above, Sub-section on “Clear social inclusion objectives, with related quantitative targets and strategies”.)

**Strengthening policy analysis**

The indicators of poverty and social exclusion described above are in general outcome indicators aiming to measure the extent of progress towards the common objectives of promoting social inclusion. It has to be recognised that the outcomes measured by the indicators depend partially on exogenous developments, such as demographics, social tensions and violence. But they are also influenced by the policies adopted by governments, at all levels, and by international agencies. To bring about a substantial improvement in the reported indicators requires long-term and structural policy efforts. The indicators need therefore to be integrated into the development of a policy strategy; we need to link policy and outcomes. Among other advantages, such a linkage will help countries to learn from each other’s experience: to see what “works”. It will facilitate policy learning.

In considering the link between policy and outcomes, there are several types of question that can be asked: (1) mapping the relation between country policies and the indicators of poverty and social exclusion, (2) projecting for countries the future impact of existing and announced policies, and (3) examining the impact of global policies. In so doing, it is important to examine the totality of policies that impact on individuals, families and communities. There are inevitably policy variables that cannot readily be incorporated, but the aim is to be as comprehensive as possible.

In examining the impact of policy, we need first to establish a baseline. This refers both to the initial point of departure and to the counterfactuals as to what would
have happened in the absence of the policy. If we are asking how far a social inclusion policy can be expected to reduce, say, the proportion of families living at risk of poverty, then it is not always easy to list the precise measures that constitute the “policy change” from the baseline. The same applies to the timing. Policies are announced in advance of their enactment, and may be “re-announced” in the period before they come into force. It may not be easy to relate policy announcements to their starting dates; yet this is clearly relevant to determining their impact in terms of outcomes. The policy baseline has moreover to be dynamic. As has been brought out by Callan (2005), where wages and prices are rising, a neutral tax-benefit policy may be defined as one that indexes benefit levels, tax thresholds, and tax bands in line with rising incomes. This is then the benchmark against which policy change is to be assessed. The dynamic nature of the calculation is particularly important given the delay with which data on outcomes becomes available.

The next difficulty concerns the counterfactual for the outcomes. A government may have set in train measures that will reduce the risk of poverty by 2 percentage points, but the underlying trend may be upwards. If, in the absence of the new measures, we could have expected the at-risk-of-poverty rate to rise by 2 percentage points, then the policy will only succeed in holding the line. This would not be detected by simply tracking changes in the outcome indicator. In other cases, the underlying trend may be favourable. For instance, in the 2006-2008 National Action Plan on social inclusion it submitted to the Commission, the government of Cyprus noted that developments in the area of employment since 1997 “will have positively influenced matters - in the direction of lower risk of poverty” (Government of Cyprus, 2004, Annex, page 7).

It is evidently important to look at the total range of policies that impact on the problems of poverty and social exclusion. A full coverage is necessary because of the inter-relatedness of different policies noted above. Measures to improve access to jobs for single parents, for example, may raise their employment rate, but the impact on their income depends on the interaction with social transfers, housing benefits, educational grants, etc. The income of the family will depend on other government policies, such as those with regard to the minimum wage, housing benefit, and the availability of child care.

Where the policy analysis is carried out on a comparative basis, this can be a vehicle for mutual learning. In the EU, the peer review process is designed to encourage just such learning as part of the Social Protection and Social Inclusion Process. National specificities, and indeed differences within countries, with regard to policy institutions mean that it is difficult to apply one country’s policies directly to another. One cannot simply “lift” a particular policy structure or intervention from one country and apply it in another, since the broader institutional context in which it is set may be critical to understanding why it is effective (see what was referred to above as contextualised benchmarking). At the same time, countries can learn from each other. To begin with, one would expect them to identify the dimensions of poverty and social exclusion on which their performance is relatively less satisfactory, and to concentrate on these. One can then ask why performance is relatively less good. In part, the reasons can be found within the country, particularly where there are identifiable
geographic differences within the country. But in part they may be identified by looking outside.

Finally, it should be noted that in the previous Sections the focus has been on the question as to how policies affect outcomes:

\[ \text{Policies} \rightarrow \text{Indicators} \]

But it is also important to reverse the process and ask what changes in policy are necessary to achieve a specified reduction in different social indicators?

\[ \text{Policies} \leftarrow \text{Indicators} \]

**Tools for policy analysis**

Faced with the challenge – what policies do we need to achieve our goals? – how can we, as policy analysts, respond? This Sub-section describes two types of analysis widely used at a country level to examine the impact of policy on financial circumstances: model families analysis and micro-simulation models. They are presented separately, but they are best seen as complementary and that the way forward may best be through an integrated modelling framework (Sutherland, 2005).

An individual, when presented with a policy proposal, is likely to examine how he or she, and their immediate family, are affected. Suppose that the government proposes an employment subsidy for workers with children, and earning less than a specified amount, with a tapered withdrawal for a range of earnings above this amount. The person will ask – Am I eligible? If so, how much will I get? If I am eligible, how will this affect my decisions about choice of job? For example, the new proposal may affect whether or not I go to work in the city. If I am not eligible, then can I change my behaviour to qualify? The same questions, writ large, concern the policy analyst. The government Minister will no doubt want to know the impact of the proposal on “model” individuals, chosen to be representative of the population. Suppose that we consider the impact on child poverty. The Minister will want to see calculations for representative families with children who are currently below the poverty line. How much will they benefit? Will the proposal be sufficiently generous to lift them above the poverty threshold? These concerns are not limited to Ministers. All those involved in policy debate are interested in “what if” analysis. Ensuring wider accessibility of policy analysis is an important objective. In this context, it is worth mentioning the project launched by the World Institute for Development Economics Research of the UN University (UNU-WIDER) on “Designing Africa’s Poverty Strategies: Creating the Capacity for Policy Simulation”. This project provides user-friendly access to micro-simulation models (the second type of approach considered in this Sub-section; see below) at present covering five African countries; see Box 5.
The model families approach basically involves calculating the financial consequences of fiscal and social policies for a set of hypothetical families or households. The calculations allow one to see the effect of policy variations; they allow one to examine the effects of changes in household circumstances, such as an increase in gross income (and hence calculate marginal tax rates). This technique starts with defining specific family types, making assumptions about the number of persons in the household, their age, their marital status, their status on the labour market, their gross earnings, their housing situation, etc. For these family types the amount of taxes and social insurance contributions is computed, as well as the amount of fiscal and social benefits, given existing welfare state arrangements. This way the net disposable income for each family type can be determined. The analysis may be conducted in terms that allow one or more variables to vary continuously, such as gross income, the results then being presented as functions of income (for example in the form of a graph depicting net disposable income as a function of gross income). Model families results thus reveal the level of social protection provided to households in various situations. The policy parameters may be the same for each household, or they may vary: for example, by geographical location (see below).

The usefulness of model families for comparative research on social policy is evident from the frequent use of this technique (e.g. Bradshaw et al, 1993). The OECD has been using the method for many years for several purposes such as calculating tax burdens (OECD, 2003), replacement rates for the short-term and the long-term unemployed (OECD, 2004), and support for families (OECD, 2005). As OECD colleagues say, “the results from the tax benefit models allow policy makers to see in detail how their policies might affect one family. This can be a powerful tool, in that aggregation can sometimes erase details important to the individual.” (Communication to the authors from OECD). By calculating net disposable incomes and by comparing them to income poverty lines, minimum and average wages, model families results can give a clear indication of the level of (minimum) income protection, and also the financial incentive to take up work associated with a package of fiscal and social measures (see Harding et al, 2005). Therefore they are related to the main objectives of social protection: minimum income protection, maintenance of the acquired standard of living and promoting social participation, in particular labour market participation.
One strength of this approach is that model families calculations can bring together different elements of government policy. The calculations of net disposable incomes take into account gross benefits and wages, income taxes, social contributions and local taxes as well as child benefits and housing benefits. So, family models compute the financial consequences of a package of social protection measures, taking into account the interaction between various fiscal and social protection measures. Taking a broad view of policy instruments is especially important in comparative analysis, because what households have to pay for out of their after-tax income varies markedly across countries. There are significant cross-country differences in the cost for housing, health care, childcare, etc. Several studies indicate for instance that results differ significantly according to the treatment of housing costs (e.g. Kuivalainen, 2003). In their international comparison of child benefit packages, Bradshaw and Finch (2002) calculate – by means of the model families approach – net disposable incomes not only after taxes and social contributions but also after the benefits and costs for housing, health care, education and childcare.

In making these calculations, a number of key assumptions have to be made, and these need to be borne in mind when considering the results. Firstly, the eligibility rules can exclude certain categories from income protection. Working-age people refusing a job or training, for example, sometimes receive a reduced benefit or are suspended. Secondly, family models assume that all families claim and receive the benefits for which they are eligible. In other words, family models do not take into account the administrative operation of social protection measures and related non-take-up rates. Several studies indicate that non-take-up rates for social assistance benefits can amount to 20% and more (Hernanz et al., 2004; van Oorschot, 1995). Experience with means-tested benefits has shown that a significant proportion of those entitled to these benefits may not claim their entitlement. “The evidence reviewed in this paper suggests that low take-up of welfare benefits occurs across both countries and programmes. Estimates typically span a range of between 40% and 80% in the case of social assistance and housing programmes, and between 60% and 80% for unemployment compensation” (Hernanz et al., 2004, page 4). Non-claiming can reflect lack of information; it may reflect the compliance costs, notably time; in some situations receipt of means tested benefits may be perceived as stigmatising. Thirdly, in several countries, benefit levels are not set by the national government but differ across the regions or even municipalities. There are several options to deal with cross-regional variations in social assistance benefits and/or housing benefits. Benefit levels can be based on (a) the national average, (b) a representative case or (c) not be simulated. Finally, there are important benefits, notably those from collective services, which are typically omitted altogether. (These may also be expected to vary geographically.)

These considerations underline the twin problems of this approach: the selection of hypothetical family types and their aggregation to reach overall conclusions. Model families studies do not always make explicit their criteria for choosing family types. This can generate concern that they are tailored to the policy interventions under investigation, with the attendant risk that the analysis will neglect other vulnerable groups. In a comparison across countries, there is the possibility that the choice of hypothetical family types will be biased inadvertently in the direction of families that are more represented in one country than in another. Countries differ, for instance, in the share of families with 1, 2 and 3 children and the share of lone parents. So far two main
ways have been used to synthesise the results of model families simulations into a few numbers. The first is to weight equally: for example, Kuivalainen (2003) and Nelson (2003) calculated the average benefit level for all model family types. There seems little rationale for equal weights per se, and it seems preferable to use survey or administrative data to weight the different types. This then raises the issue of the choice of basis. The ranking of countries in terms of the school meal programmes, for example, may change significantly when weights for (say) South Africa, rather than weights derived from (say) Brazilian data, are used. If the model families findings were highly correlated across types of household, then this would not be so much of a problem. But this is not the case. Even within a single branch, such as social assistance, countries occupy substantially different positions, depending on the type of household.

These qualifications should be borne firmly in mind when using model families analysis. Nevertheless, this approach is clearly illuminating. Moreover, one major reason why the model families approach is frequently used in comparative research on social policy is that these models are relatively easy to develop and to maintain. Such models only consist of some carefully chosen fiscal and social regulations for a limited set of family types. The model families approach requires a minimum of empirical data (e.g. average earnings or average rent). Therefore it is fairly simple to keep model families results up-to-date and to construct time series. This is of particular significance when one considers their use by campaigning groups, often short of resources, and journalists. This last advantage is not shared by the second approach considered in this Sub-section: micro-simulation modelling.

Let us now consider the potential contribution of tax-benefit micro-simulation models designed to investigate the impact of changes in taxes and benefits on disposable household income for a representative sample of the population. In contrast to the model families approach, the model starts from information about actual households: actual earnings, investment income, and private transfers. Obtaining this information is not necessarily straightforward, and micro-simulation is much more resource-heavy than the model families approach. Starting from the observed situation, micro-simulation models the effect of changes in policy. From knowledge of the policies, and administrative practice, it can calculate how the disposable income of a given household would be changed by a policy proposal. Take for example an employment subsidy, as described above. The micro-simulation model allows to identify the families eligible for this benefit and to calculate the amount of benefit to which they would be entitled. As with the model families analysis, the calculations can take account of the interactions between different elements of the tax and transfer systems. Not only can such a model calculate the level of fiscal and social costs and benefits for each individual, it can also provide information on the coverage of a certain measure. These models have come to be very widely used internationally. For further discussion of this type of micro-simulation models, see inter alia: Atkinson and Sutherland, 1988; Bourguignon and Spadaro, 2006; Harding, 1996; and Harding and Gupta, 2007; Immervoll et al, 2005; Legendre et al, 2003 and Verbist, 2005.

As a micro-simulation model operates on a representative sample of the population, it is not necessary to make all of the assumptions required to define model
families. The number of household members, their demographic and socio-economic characteristics etc. are provided by the source data. No assumptions have to be made regarding regional and local variations, provided the respondent's place of residence is available from the data. Actual benefit receipt provides some evidence about take-up. At the aggregate level, the source includes the weights for the different persons and households, so that we do not have to confront the weighting issue described above. Moreover, the use of actual survey or administrative data forces the analyst to confront the diversity of household circumstances, which may be missed if we start by enumerating model families in abstract. An important example is that of multi-family households. There may be people living in the household, other than the family for whom the model calculation is made.

Tax-benefit models have typically been built up for developed countries, but the techniques are now being applied to developing countries. This is the case for instance of the aforementioned series of models that have been built for five African countries with the support of UNU-WIDER (see Box 5). Further examples of tax-benefit models being implemented in less developed countries are provided by the SAMOD and LATINMOD projects. Both started from the framework provided by the EU model “EUROMOD”, developed by Sutherland and colleagues;\textsuperscript{18} the former in South Africa and the latter in Latin America (see Box 6). As this brings out, tax benefit simulations will become increasingly important as anti-poverty programmes come increasingly to be funded by domestic fiscal sources.

\textsuperscript{18} See \url{http://www.iser.essex.ac.uk/msu/emod/}. 
The extent to which micro-simulation models enjoy an advantage over model families analysis depends, of course, crucially on the quality and timeliness of the underlying data. The representativeness of the findings from micro-simulation may be open to question if there is not a sufficiently large sample, or if there is serious differential non-response. We may be able to get more accurate aggregate figures from model families weighted by results from administrative records than from a micro-simulation based on a highly unrepresentative sample survey. The accuracy of the calculations for individual households depends on there being adequate information about the relevant socio-economic characteristics. For example, the geographical information may not be sufficiently detailed to pinpoint the precise administrative authority. In some cases, due to the limitations of the input data, it is not possible to model particular transfers, such as survivor pensions and disability benefits. Policy initiatives may have attached conditions that cannot be verified with the available data or the policy may be restricted to groups of the population that cannot be identified. This means that there are certain classes of policy change that cannot be simulated.
The accuracy of the simulation results depends also on the household responses being provided without serious error. This is one reason why it may not be possible to re-create the observed taxes paid and benefits received: the taxes and benefits calculated by applying the rules may not be equal to the amounts recorded. It is not the only reason for such a departure. In reality, the administration of taxes and benefits may not follow the formal rules. There may be mistakes in the calculations; the family may make an incorrect statement to the authorities of its income or other circumstances. Where it is not possible to reproduce in the simulation model the current levels of taxes and transfers, we have to take as the basis for the simulation the calculated figure; otherwise the results will confound errors and policy changes. The total cost of a policy proposal, for example, has to be calculated using the differences in the simulated figures before and after the policy change.

In the model families analysis and the micro-simulation models just described, labour market behaviour is assumed fixed, which means that the models cannot allow for the effects of policy that operate via behavioural change. For this reason, they are sometimes described as “static”, and are criticised for not casting light on the behavioural changes with which policymakers are concerned. This criticism is too severe in that both kinds of analysis can provide a valuable input into the analysis of behavioural change. One product of model families analysis can be calculations of the impact of policy change on the incentives faced by the family. For different possible variations in labour supply, or in savings behaviour, we can see how the policy change affects the return to extra effort or to extra savings. This is the marginal tax rate: the amount taken away from $1 extra gross income as a result of the operation of the tax and benefit system. The same calculations can be made using micro-simulation models, so that we can obtain distributions of marginal tax rates. We can see how many people face a marginal tax rate of 50% or higher and whether these rates are to be found at the bottom of the earnings distribution, where people are in receipt of one or more means-tested benefits, or at the top of the earnings distribution, among those facing the top rates of income tax. To give just one example, Harding and Polette (1995) show the impact of means-tested transfers on effective marginal tax rates in Australia, while Harding et al (2006) show that high effective marginal tax rates now affect more working age Australians than a decade ago.

These calculations cast light on the implications for work incentives. They also allow to highlight the many different dimensions of labour supply. A person can increase labour supply by working more hours, or by taking a job that requires more effort. These may both increase earnings, but the implications may be different. For example, if benefits are paid subject to an hours’ condition, then a person may become eligible by increasing working hours. A couple can increase its labour supply via an increase in the hours of the man and/or the woman. Again the implications may be different: for example, where husbands and wives are taxed independently. In the same way, savings can take different forms. A savings bank may offer both taxable and non-taxable accounts. A person can invest in shares that generate capital growth rather than dividends. A person can invest in extending their house rather than in financial instruments. The marginal tax rate may be different in all cases. For example, where transfers are subject to an assets test, certain classes of asset (such as owner-occupied houses) may be excluded.
The marginal tax rate calculations, however, take us only part of the way. They do not tell us what is predicted to happen to labour supply or savings as a result of the policy change. We cannot say that unemployment will fall by x%. We cannot say that there will be a y% reduction in the proportion of the population living in jobless households. For this we require a model of behavioural response, and to make contact with the rapidly growing body of research on the empirical impact of policy interventions. Here, there is too little space to review this literature, but it is important that the “join” should be made with the results from policy intervention studies feeding into policy simulation models. This may sound self-evident, but there are several reasons why it is not straightforward to incorporate into micro-simulation models the findings of this literature:

i. many of the estimates relate to a subset of the population;
ii. the estimates typically cover only certain dimensions of behavioural response;
iii. econometric models predict behaviour up to a stochastic disturbance term, and we need to consider how it is to be interpreted (a transitory variation, a fixed taste difference, a “mistake”);
iv. households make multiple decisions and these are inter-related (for example the decision to go and work in the city and the savings decision);
v. it is not easy to explain to the users of the results the basis for the predictions.

It should be stressed that these are reasons, not for rejecting the approach, but for developing the research. They are a challenge.

The tools of analysis described above are extremely valuable. At the same time, we should not lose sight of the fact that they embody a set of assumptions about our values and objectives. A good example of such an assumption is that about income-sharing within the household, which is very relevant to the gender dimension of poverty and social exclusion. In spite of the importance of eliminating inequalities and promoting equality between women and men (see above), much policy analysis still does not take into account the gender dimension. Analyses based on survey data typically treat the household as a unit, assuming an equal sharing of financial resources within households. There are two important aspects here. The first is empirical: the actual distribution of resources within the household. The assumption of equal sharing does not necessarily reflect reality. The second issue is one of judgment: should individuals be dependent on the sharing of resources within the household? The answer to this second question may depend on whether we are concerned with standards of living or with rights. Sharing may ensure that women have a comparable standard of living, and the observed differences in money income may be the result of a mutual agreement, but it remains the case that people do not have the same entitlement as where the income comes to them directly. We may therefore, on a rights basis, be concerned with the share of income that they receive as of right. (See also above discussion in Sub-section on “Consumption versus income”.)
VII. Development of social inclusion indicators to be used in a world-wide context

Structure of international portfolio

The diversity of country concerns, and the differences in levels of development on a world scale, mean that an international portfolio of social inclusion indicators has to be designed flexibly. The portfolio has to combine the principles set out earlier with recognition of the diversity of needs and priorities. One way in which this could be achieved is via a three-tier structure:

- **Level 1** would consist of a restricted number (no more than ten) of lead indicators for the main fields relevant to all countries, including income poverty, material deprivation, lack of education, lack of productive role, poor health and poor housing. The lead indicators have to reflect the various key dimensions of social inclusion. This is important not only because this would concretely recognise and emphasise the multi-dimensionality of poverty and social exclusion, but also for countries’ governments. Indeed there will undoubtedly be advantages in the fact that rankings will differ across the various fields, so that one may expect greater willingness on the part of governments to diffuse the results and actively participate in the contextualised benchmarking advocated throughout this study.

- **Level 2** would contain supporting indicators, providing greater detail and describing other dimensions of the problem, and covering dimensions of social inclusion not (yet) included in the Level 1 list. It would also contain useful contextual information, both quantitative and qualitative. There would be no limit on the number of Level 2 indicators and on the contextual information provided, but one should avoid unnecessary proliferation, since each additional indicator increases the statistical and other resources required. Topics covered could include, for instance: access to justice, social and political participation, civil rights, security and justice, well-being, information and communications, mobility, leisure and culture,

- **Level 3** would consist of indicators and contextual information that individual countries themselves decide to include, in order to highlight specificities in particular areas and to help interpret the Level 1 and 2 indicators; no doubt these national indicators will provide a source of ideas and experience about new indicators which may be adopted at Level 1 or 2, in time replacing those initially proposed.

Both Level 1 and Level 2 indicators would be commonly agreed.

The three-tier structure has a number of advantages. The most important one is definitely that it allows the principle of balance across different dimensions to be satisfied without restricting the scope for the development of individual fields. Certain areas are more developed, methodologically and empirically, than others. Financial poverty, for example, may be measured in a number of ways (poverty count, poverty gap, etc). The three-tier structure allows there to be several indicators of poverty at Level 2 without their...
coming to have disproportionate weight in the overall assessment at Level 1. By appropriate choice of the lead indicators, it will be possible to satisfy the requirement that the significance of the components be 'proportionate': i.e. that the individual fields have degrees of importance which, while not necessarily exactly equal, are not grossly different. Countries may differ in the relative weight that they attach to the different fields but there is likely to be broad agreement that each of them is relevant.

Presentation of indicators

There are clearly dangers in using the commonly agreed indicators to draw up “league tables”. The aim of policy (social policy as well as other policies relevant to the social field) should be to improve overall performance and, ideally, bring all countries to a high level of social inclusion. If such a high level is obtained more or less uniformly, then the rankings will have little meaning. Likewise, all countries may be performing equally badly, and a ranking would then give no indication of the need for action. In a situation where countries are improving their performance, but with no changes in ranking, then no change would be recorded. At the same time, comparable indicators are designed to provide benchmarks and rankings can be valuable aids to policymaking if they are properly contextualised and if error measurements are duly taken into account (see above). In seeking to understand which policies “work”, it may be a helpful first step to identify those countries which are better performing, based on several indicators.

In the presentation of the indicators it is indeed important to convey as clearly as possible the uncertainty that surrounds the numerical magnitudes. A previous Sub-section briefly described the way the statistical sources are subject to a variety of errors. More generally the variables employed as indicators may only be imperfect measures of our underlying concerns. As has been emphasised in the literature on national league tables for schools and hospitals (see, for example, Goldstein and Spiegelhalter, 1996), the uncertainty needs to be made explicit. The user will ask whether a reduction of 1 percentage point in the rate of illiteracy is larger than the margin of error. This is not, however, an easy question to answer. Intervals can be supplied that take account of sampling variability, such as standard errors for the proportion of the population living below an income cut-off. But other forms of error are less easily formalised. Ultimately, a judgment has to be made as to the reliability of specific indicators for the purpose in question.

Disaggregation of indicators

It is envisaged that the indicators would be disaggregated by a number of key variables, subject to the data constraints. The importance of disaggregation by gender has already been emphasised. In determining the degree of other disaggregations, it will be necessary to carry out a detailed consideration of each of the dimensions along which disaggregation should take place. The objective here is not to provide such a discussion, but rather to refer to some general issues and then consider the specific dimension of region.
There are at least three senses in which indicators can be disaggregated. The first – and perhaps the most natural interpretation – is to consider values of the indicator for specified sub-groups of the population. We may be, for instance, interested in the differences between rural and urban households. For this purpose, the sub-groups need not be exhaustive. We may look at the poverty rate among children (i.e. the proportion of children living in households below the poverty line) and the poverty rate among the older persons, without considering the intermediate age range. Secondly, we may consider the variation of the indicator across sub-groups of the population. This may involve for example looking at the ratio of the poverty rates of children and older persons. It may mean looking at the standard deviation of regional employment rates. The third disaggregation involves the decomposition of the identified population by exclusive (i.e. non-overlapping) sub-groups. We may, for instance, be interested in the composition by age of the long-term unemployed.

In considering what disaggregations are possible, the first issues are statistical. The statistical reliability of the results depends on the sample sizes, and they can easily become too small if the population is divided into several groups, generating standard errors so large that no distinctions can be drawn between the sub-groups covered. Sampling errors may also limit the conclusions that can be drawn about changes over time. Against this, where the values of the indicator are sufficiently different, the differences may still be significant. This may apply, for example, to the poverty rates for one-parent families, where the proportion of the population is relatively small but the differences in poverty rates is large. A further statistical problem is that the data sources in some countries may not contain the variable required for the disaggregation, or the coverage may be different (for example, including or excluding non-nationals). Indeed in some states there may be legal or constitutional prohibitions on collecting certain information – for example that on ethnicity – in statistical inquiries. Or the information may be deemed too sensitive to be collected without adversely affecting response rates.

A second issue concerns the definition of sub-groups, and their comparability across countries. For example, we may want to classify people according to their activity status: employed, self-employed, unemployed, retired, and otherwise inactive. These activity states have to be defined consistently. As far as household composition is concerned, we may distinguish between classifications based on household composition and those that seek to take account of the relations between different household members. For example, a household may consist of two adults and a child. This may be sufficient to classify the household in terms of its potential economic activity, but is consistent with several different familial relationships: the two adults may be a married or cohabiting couple, they may be mother and grand-mother, they may be mother and adult child, etc. It may be difficult to secure comparability in the definitions across countries. For a number of policy purposes, we may wish to have indicators for those with disabilities, but there are serious measurement problems related to cross-national differences in definitions.

**Composite indicators**
There is considerable appeal to the idea of adding up indicators for different fields to arrive at a total score. Such a composite score would attract the attention not only of newspaper headline writers but also of policy-makers and the general public. An aggregate performance measure can, as argued by Micklewright (2001), serve the twin functions of summarising the overall picture and of communication.

The popularity of such an approach has been demonstrated by the most widely-known measure of this kind in current use: the UNDP Human Development Index (HDI), which is a composite of three basic components: longevity, knowledge and standard of living. The rationale given for this procedure in 1990, when it was published for the first time, was that “too many indicators could produce a perplexing picture – perhaps distracting policymakers from the main overall trends” (UNDP, 1990, page 11). The combination of separate indices for GDP, life expectancy and educational attainment has certainly served to broaden the focus from looking only at GDP. The HDI has been an important step forward.

The reduction of a multi-dimensional phenomenon to a single number does however raise a number of issues. To begin with, it is important to distinguish two different forms of aggregation. The first aggregation combines different characteristics at the individual level (e.g. persons or households), which are then summed over individuals to form an aggregate index. The focus is then on multiple deprivation at the individual level, which requires micro-datasets containing information covering the different relevant domains; an example of one such indicator would be the proportion of people who are poor and who are living in a household with no one in paid work. Instead of first aggregating across fields for an individual and then across individuals, the second approach aggregates first across people and then across fields. This second approach is thus a combination of aggregate indicators, as with the HDI. (See also Atkinson, 2003.)

The focus below is on this second approach - which is referred to as “composite” indicators. It is clear that the design of any such indicator requires that social judgments be made, and these are not easy to make. The problem is illustrated in poverty risk/illiteracy space in Figure 2 for seven hypothetical countries, ranging from A with low illiteracy but high poverty risk to G with low poverty risk and high illiteracy. Summation, as in the HDI, adds the two scores, and country C is ranked the highest. Even with summation, however, there is no reason why the variables should be weighted equally. If we were to attach a greater weight to the risk of poverty than to illiteracy, then country E could take over the lead. Moreover, why should we simply add? Alternatives to simple addition are considered, in the context of poverty indices, by Anand and Sen (1997). One limiting case is that of “Rawlsian” social judgements, where we rank countries according to the dimension on which they perform least well. The space is then divided into two. Above the 45° line, poverty risk has priority; below the 45° line, literacy has priority.
One problem with the choice of weights is that these may not conform with those embodied in national policy objectives. This has led Cherchye, Moesen, and Van Puyenbroeck (2003) to argue that the weights should vary across countries according to their own national priorities, as revealed in their performance. If a country regards risk of poverty as more important than illiteracy, then we should weight poverty more highly when constructing the synthetic indicator for that country. Cherchye, Moesen and Van Puyenbroeck develop this approach by drawing a parallel with Data Envelopment Analysis in production theory. In essence, this involves asking how close countries are to the “efficiency frontier”, illustrated in Figure 2 by the frontier ACEG. All four of these countries score 100%, since none is dominated by another country. There is, for example, always a dimension on which Country E scores better than any other country (it beats G on literacy and all the others on risk of poverty). They then devise a measure of the distance by which “non-frontier” countries fall short of the frontier, obtaining the weights by solving a linear programming problem. In effect, this is based on the “revealed preferences” of countries.

The efficiency frontier approach is a good example of cross-fertilisation in social science, with a technique developed for one purpose being applied imaginatively to a quite different field. However, it is open to question whether policymakers would find the solution of a linear programming problem less perplexing than consideration of a number of separate indicators. It may appear to be offering a scientific resolution of what is at heart a political problem, ignoring the advice that “weighing together different welfare components should be avoided to the very last so as not to conceal dissensions in a ‘scientific’ model” (Erikson, 1974, page 279). We could drop the linear programming element, and simply rank each country on the dimension on which they
perform best, measuring the distance from the best performance. But this would convey the message to (sub-)national governments that they did not need to make efforts to improve their performance on the other dimensions. One feature of the objective functions described above is that, in certain situations, the pay-off to improving performance for a particular country can be concentrated on one of the two dimensions. A country judged according to its better performing indicator can only improve its position by doing even better on that indicator: it invests in success. If the social welfare function is Rawlsian, it can only improve its position by doing better on the dimension where its performance is less satisfactory. In both cases, there is a risk that countries will pursue “bang bang” policies, concentrating on a single objective, rather than a balanced approach to different dimensions of deprivation.

If combining different indicators into a single number is certainly appealing at first sight, this approach raises, as shown above, serious technical and political issues. The technical and political issues become even trickier if such indicators are to be used for international comparisons and for measuring changes over time. For these reasons, even though composite indicators, like the Human Development Index, undoubtedly can play a valuable role in certain contexts, and while they undoubtedly appeal to policy-makers, they should be employed sparingly. It was, after all, the first Human Development Report that stated that “people cannot be reduced to a single dimension” (UNDP, 1990, page iii).

VIII. Conclusions and summary of main issues

This study has tried to demonstrate the analytical and operational significance of the measurement of poverty and social exclusion, and its relevance to the design of policies. It has tried to systematically identify the key issues that need to be debated and resolved in this context, and suggested concrete answers which hopefully will be of value to international agencies, to national and sub-national governments, to researchers, to members of civil society organisations, and to practitioners.

The main issues addressed in the study can be summarised in the a) to z) below:

a) Measurement of poverty and social exclusion is crucial at the national and sub-national levels, for countries to be in a position to assess their current performance according to an explicit set of criteria, to determine whether or not they are making progress in fighting poverty and social exclusion, and to compare the impact of different policy measures undertaken to promote social inclusion.

b) Measurement of poverty and social exclusion is necessary at the global level, to make it possible to compare in a (reasonably) harmonised way the extent of poverty and social exclusion across countries, to determine progress being made in reducing poverty and social exclusion across countries and in the world as a whole, and to improve international comparative analysis and mutual learning between countries through contextualised benchmarking. The latter is important as specific policies and their impacts measured through indicators can only be properly understood in the context of the broad institutional setting in which they operate, calling for a system-wide analysis.
c) Given the multidimensional nature of the phenomenon at stake, measurement of poverty and social exclusion is a task of considerable difficulty. Apart from economic resources and employment, fields to be covered include inter alia health, education, affordable access to other public services (justice…), housing, civil rights, security and justice, well-being, information and communications, mobility, social and political participation, leisure and culture.

d) For the measurement of poverty and social exclusion to meet the aforementioned (sub-)national and international objectives, close links are required between the design of social indicators and the questions that they are intended to answer. Indicators need to be fit for purpose, which implies that their construction needs to follow a principle-based approach. Eight principles have been put forward and discussed.

Five concern the single indicators:
- an indicator should identify the essence of the problem and have a clear and accepted normative interpretation;
- an indicator should be robust and statistically validated;
- an indicator should be interpretable in an international context;
- an indicator should reflect the direction of change and be susceptible to revision as improved methods become available; and
- the measurement of an indicator should not impose too large a burden on countries, on enterprises, nor on citizens.

Three concern the portfolio as a whole:
- the portfolio of indicators should be balanced across different dimensions;
- the indicators should be mutually consistent and that the weight of single indicators in the portfolio should be proportionate;
- the portfolio of indicators should be as transparent and accessible as possible to citizens.

These 8 principles are open to debate and the actual portfolio may be seriously constrained by data availability, but making them explicit should aid the development of social indicators. The next challenge is to implement them in practice.

e) If quantification is essential for analysing poverty and social exclusion, quantitative indicators are however not enough. These need to be accompanied by qualitative evidence. Qualitative evidence helps interpret the numbers and provides a start in understanding the underlying mechanisms. Significant elements of human experience cannot readily be reduced to a simple scale. Findings from qualitative studies can provide some reassurance that quantitative indicators correspond to reality on the ground.

f) Some of the broader indicators of social exclusion, such as lack of political voice of the poor and socially excluded, may contain elements that are inherently subjective but that may prove very useful for the analysis of certain aspects of poverty and social exclusion. Subjective indicators have also a role to play in increasing the legitimacy of the whole measurement and assessment exercise that this study has been advocating. There are three distinct senses in which social indicators can incorporate subjective elements.

g) The global perspective discussed in the study does not imply that there should be a single global set of indicators for all countries and all purposes. Indeed, there is a wide diversity of national and also sub-national circumstances across the world. The sources of concern about poverty and social exclusion are varied. Countries identify different fault lines in their societies. When debating poverty and social exclusion indicators, it is therefore important to address various definition issues,
which include: the measurement of poverty in absolute rather than relative terms, the use of consumption rather than income as the basis for calculating the “financial” indicators, the distinction between stock and flow indicators and between static and dynamic indicators.

h) A natural starting point for constructing social indicators is the position of individual citizens. For some purposes, however, we may wish to look at the position of a wider unit than the individual. Once we aggregate, a range of possible definitions opens up for the unit of analysis, making use of various possible criteria: household, spending unit, family unit, inner family… and wider groupings, for instance because we find it important that the measure of a person’s standard of living takes account of possible support networks. In some cases, for instance income poverty, we may opt for a combination of individual and household characteristics.

i) The implications of different choices of unit depend on the variable in question; but it is important that, when considering a group, one clearly distinguishes between the relevance of the groups for assessing individual standards of living and its use as analytical categories. This needs to be addressed in particular when analysing indicators that have an important territorial dimension.

j) Gender mainstreaming, as a means to achieving equality rather than a goal in itself, should be implemented at every stage of the policy process (design, implementation, targeting and monitoring, and evaluation). As far as social indicators are concerned, the issue of gender is important not only in terms of disaggregation but also in the very definition of indicators. Choices made with regard to definitions may not be neutral with regard to gender (e.g., the hypothesis of an equal sharing of resources within households or families).

k) Children mainstreaming is a more recent concept. It does not imply that children should necessarily have priority over other groups but rather, as with gender mainstreaming, that a specific perspective be taken. The approach is not simply to disaggregate by age but to ask: “what indicators would best serve the needs of children?”. It has to give a different “cut” through the problem of constructing social indicators.

l) Some indicators are more sensitive than others to differences across countries in their social structure. Indicators that are over-sensitive to these structural differences or which raise specific problems of interpretation for particular countries should be avoided.

m) The construction of social indicators is necessarily a compromise between the theoretical definition and the empirically possible. Data may simply not be available, or may not be of adequate quality, or may not be sufficiently comparable across countries (or even within countries) and/or across time, etc. Sampling merely allows one to draw conclusions about a characteristic of the population with a certain degree of (un)reliability. This must be taken into account and it is always advisable to provide sampling errors for key estimates from sample surveys. The accuracy and reliability of sample-based estimates depends primarily on the sample size and efficient design. There are, moreover, elements in the conduct of surveys which especially affect the measurement of poverty and social exclusion, such as: the degree of overall non-response, the item non-response, the outliers… Small differences in the indicators between countries, or over time in one country, should thus not be given too much emphasis.

n) Significant progress has been made on the social indicators’ data side in various countries, but considerable distance has yet to be travelled. Where needed and possible, countries should be encouraged to develop their statistical information to
improve the degree of international comparability of the measurement of poverty and social exclusion. Consideration of the quality and design of social indicators should influence the plans for improved or new statistical instruments. Full use should be made not only of household surveys but also of the potential offered by other data sources – in particular administrative and registers’ data which have the advantages of speed (the need for timeliness is one of the major constraints on the choice of social indicators), relatively low cost and a reduced burden on respondents.

o) The construction of performance indicators needs to be based on a participatory approach, involving the regional and local public authorities, the different non-governmental actors and bodies implicated in the fight against poverty and social exclusion, including social partners, non-governmental and grass roots organisations (at international, national and sub-national levels), and the poor and socially excluded people themselves. Widespread citizens’ ownership is key to promoting social inclusion.

p) It is therefore important that there be a high level of confidence in the validity of social indicators, and that they should not be seen as subject to political manipulation. In part, this is a question of the institutional structure (in particular the need to ensure the independence of statistical agencies). And in part, this is also a question of the design of the indicators. In defining components of the social indicators, consideration must be given to the perceived reliability of the underlying data. Moreover, confidence in quantitative indicators may be enhanced if they are accompanied by qualitative evidence (see above).

q) Countries should adopt an objective-driven approach to the fight against poverty and social exclusion: clear social inclusion objectives, with related quantitative targets and strategies. They should concentrate on a carefully selected shortlist of key national policy objectives, expressed in terms of social outcomes. It is essential that these objectives be the result of an in-depth diagnosis of the causes of poverty and social exclusion in the country concerned, based on a thorough multi-dimensional analysis of the national situation with regard to poverty and social exclusion across all important areas. Integrated social inclusion strategies need to be put in place. These strategies should follow a multi-dimensional approach cutting across and integrating a range of policy domains, calling for joined-up government (at and among the different policy levels) as well as the active participation of all the relevant actors (see above). In this highly focused framework, the selection of policy measures to back the strategies should be based on ex ante impact assessments. Academic research can play an important role in the diagnosis of the causes of poverty and social exclusion and in the analysis of the impact of policies on social outcomes.

r) This objective-driven approach constitutes a major challenge for countries, which need to develop their own social inclusion monitoring framework. Each country’s framework should adequately respond to the national (and possible sub-national) specificities, including targets and indicators. It should also allow clear links with the overall worldwide framework, so as to improve international comparative analysis and mutual learning between countries through contextualised benchmarking. Making this work requires the building of statistical and analytical capacity.

s) Diagnosis, policy evaluation, definition of outcome indicators and outcome targets are essential tools for social inclusion policies but they are not enough. Given the multidimensional nature of poverty and social exclusion, social inclusion goals have to be anchored in all the relevant policies at all levels of governance – local,
regional, national and (when relevant and possible) international. In order to go beyond words and achieve a real interaction between these various policy areas, mainstreaming of social inclusion in policy making has to be implemented through establishing a scheme of systematic policy assessments (both ex ante and ex post assessment). The impact on social inclusion of all relevant specific policies should be monitored, so as to identify possible ways of adjusting the policies to strengthen their contribution to promoting social inclusion. In short, social inclusion objectives should be better integrated with general policy design, implementation and budgetary decision-making. Instruments such as poverty proofing and social impact assessment have a major role to play in this context.

t) There are four main respects in which social indicators can usefully be employed in the process of policy formation:

- The first use of the indicators is forensic. Applying the indicators to internationally comparable data, one can learn about the differential performance of different countries, while keeping in mind the dangers in reading too much into “league tables”.

- To go further, and to draw conclusions about the policies applied, a proper comparative international policy analysis of performance is needed. The results of such an analysis provide a valuable cross-reference for national assessments of performance, which is a second role for indicators.

- Social indicators may also be used by regional and lower-level governments. This may lead to political conflict, particularly where resource allocation is affected by the measurements (among and across the different levels of governments). But it may also lead to an increased degree of joined up government. This is a third role for social indicators which may thus contribute to coordinating policy.

- A fourth application of indicators is to the explicit setting of targets.

u) The need for countries to strengthen policy analysis has been highlighted. In considering the link between policy and outcomes that is in examining the impact of policy, one needs first to establish a baseline. The next difficulty concerns the counterfactual for the outcomes. And finally, it is evidently important to look at the total range of policies that impact on the problems of poverty and social exclusion.

v) For examining the impact of policy on financial circumstances, two main tools that are widely used at a country level have been examined: the model families analysis and the micro-simulation models. These have been presented separately, but they are best seen as complementary.

w) A world “portfolio” of indicators could be designed with different levels; taking account inter alia of the EU experience, a three-tier structure has been suggested here. The top level would consist of a small number (no more than ten) of lead indicators for the main fields relevant to all countries; the second level would consist of supporting indicators and contextual information. These two levels would be commonly agreed and would reflect the multi-dimensionality of poverty and social exclusion. The third level would consist of nationally selected indicators.

x) Indicators should be disaggregated by a number of key variables, subject to the data constraints. In determining the type and the degree of disaggregations, it is necessary to carry out a detailed consideration for each indicators of the dimensions along which disaggregation should take place. Three senses in which indicators can be disaggregated have been briefly discussed: the values of the indicator for specified sub-groups of the population, the variation of the indicator across sub-groups of the population, the decomposition of the identified population (by exclusive sub-groups).
y) There is considerable appeal to the idea of adding up indicators for different fields to arrive at total scores (e.g. the HDI). Even though such composite indices tend to attract the attention not only of newspaper headline writers but also of policymakers and the general public, the reduction of a multi-dimensional phenomenon to a single number raises a number of issues and composite indicators should therefore be employed sparingly. In this way, they will have greatest impact.

z) By contrast, aggregate indicators can be very useful. They combine different characteristics at the individual level (e.g. persons or households) that are summed over individuals to form an aggregate index. The focus is then on multiple deprivation at the individual level, which requires micro-datasets containing information covering the different relevant domains.

This study may be seen as providing a checklist. It has tried to identify the key issues that arise in analysing and measuring social inclusion, seen here as the process by which societies combat poverty and social exclusion. In designing a set of social indicators, there are a series of questions to be asked. In a particular country, and in a particular policy environment, the best responses to these questions may well be different. There are good reasons why the Millennium Development Goals are framed in terms of an absolute $1 a day, whereas the European Union defines risk of poverty in terms of relative incomes. At the same time, the framework provided here should allow the indicators to be seen and interpreted in a global context.
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### Millennium Development Goals (MDGs)

#### Goals and Targets

**Goal 1: Eradicate extreme poverty and hunger**
- **Target 1.A:** Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day
  - 1.1 Proportion of population below $1 (PPP) per day
  - 1.2 Poverty gap ratio
  - 1.3 Share of poorest quintile in national consumption
- **Target 1.B:** Achieve full and productive employment and decent work for all, including women and young people
  - 1.4 Growth rate of GDP per person employed
  - 1.5 Employment-to-population ratio
  - 1.6 Proportion of employed people living below $1 (PPP) per day
  - 1.7 Proportion of own-account and contributing family workers in total employment
- **Target 1.C:** Halve, between 1990 and 2015, the proportion of people who suffer from hunger
  - 1.8 Prevalence of underweight children under-five years of age
  - 1.9 Proportion of population below minimum level of dietary energy consumption

**Goal 2: Achieve universal primary education**
- **Target 2.A:** Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
  - 2.1 Net enrolment ratio in primary education
  - 2.2 Proportion of pupils starting grade 1 who reach last grade of primary
  - 2.3 Literacy rate of 15-24 year-olds, women and men

**Goal 3: Promote gender equality and empower women**
- **Target 3.A:** Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015
  - 3.1 Ratios of girls to boys in primary, secondary and tertiary education
  - 3.2 Share of women in wage employment in the non-agricultural sector
  - 3.3 Proportion of seats held by women in national parliament

**Goal 4: Reduce child mortality**
- **Target 4.A:** Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate
  - 4.1 Under-five mortality rate
  - 4.2 Infant mortality rate
  - 4.3 Proportion of 1 year-old children immunised against measles

**Goal 5: Improve maternal health**
- **Target 5.A:** Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
  - 5.1 Maternal mortality ratio
  - 5.2 Proportion of births attended by skilled health personnel
- **Target 5.B:** Achieve, by 2015, universal access to reproductive health
  - 5.3 Contraceptive prevalence rate
  - 5.4 Adolescent birth rate
  - 5.5 Antenatal care coverage (at least one visit and at least four visits)
  - 5.6 Unmet need for family planning

**Goal 6: Combat HIV/AIDS, malaria and other diseases**
- **Target 6.A:** Have halted by 2015 and begun to reverse the spread of HIV/AIDS
  - 6.1 HIV prevalence among population aged 15-24 years
  - 6.2 Condom use at last high-risk sex
  - 6.3 Proportion of population aged 15-24 years with comprehensive core knowledge of HIV/AIDS
  - 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
- **Target 6.B:** Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it
  - 6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
- **Target 6.C:** Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases
  - 6.6 Incidence and death rates associated with malaria
  - 6.7 Proportion of children under 5 sleeping under insecticide-treated bednets
  - 6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs
  - 6.9 Incidence, prevalence and death rates associated with tuberculosis
  - 6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course
Goal 7: Ensure environmental sustainability

Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss

Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

Goal 8: Develop a global partnership for development

Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system

Includes a commitment to good governance, development and poverty reduction – both nationally and internationally

Target 8.B: Address the special needs of the least developed countries

Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction

Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)

Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term

Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries

8.1 Proportion of land area covered by forest
8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors that is untied
8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied
8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes
8.5 ODA received in small island developing States as a proportion of their gross national incomes
8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty
8.7 Average tariffs imposed by developed countries on agricultural and textile products and clothing from developing countries
8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product
8.9 Proportion of ODA provided to help build trade capacity
8.10 Total number of countries that have reached their HIPC decision point (cumulative)
8.11 Debt relief committed under HIPC and MDRI Initiatives
8.12 Debt service as a percentage of exports of goods and services
8.13 Proportion of population with access to affordable essential drugs on a sustainable basis
8.14 Telephone lines per 100 population
8.15 Cellular subscribers per 100 population
8.16 Internet users per 100 population

Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.

Official development assistance (ODA)
8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income
8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors that is untied
8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied
8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes
8.5 ODA received in small island developing States as a proportion of their gross national incomes

Market access
8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty

Debt sustainability
8.7 Average tariffs imposed by developed countries on agricultural and textile products and clothing from developing countries
8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product
8.9 Proportion of ODA provided to help build trade capacity
8.10 Total number of countries that have reached their HIPC decision point (cumulative)
8.11 Debt relief committed under HIPC and MDRI Initiatives
8.12 Debt service as a percentage of exports of goods and services
8.13 Proportion of population with access to affordable essential drugs on a sustainable basis

The Millennium Development Goals and targets come from the Millennium Declaration, signed by 189 countries, including 147 heads of State and Government, in September 2000 (http://www.un.org/millennium/declaration/ares552e.htm) and from further agreement by member states at the 2005 World Summit (Resolution adopted by the General Assembly - A/RES/60/1, http://www.un.org/Docs/journal/asp/ws.asp?m=A/RES/60/1). The goals and targets are interrelated and should be seen as a whole. They represent a partnership between the developed countries and the developing countries “to create an environment – at the national and global levels alike – which is conducive to development and the elimination of poverty”.

i All indicators should be disaggregated by sex and urban/rural as far as possible.
ii For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.
iii The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (3 or more persons per room); and (d) dwellings made of non-durable material.