

Introduction

Major international conferences and summits in 2015 – on financing for development, sustainable development, and climate change – have defined a new sustainable development agenda for the next 15 years. At all levels, from global to local, eyes will now be turned on implementing this ambitious agenda. This is the context in which this year's Global Sustainable Development Report (GSDR) appears. Building upon the 2014 and 2015 reports, the current report responds to the mandate from the Rio+20 Conference to contribute to strengthening the science-policy interface for sustainable development in the context of the high-level political forum on sustainable development (HLPF).

Given the adoption of the 2030 Agenda for Sustainable Development with its sustainable development goals (SDGs), the report adopts the SDGs as its scope. True to its mandate, the report is designed as an assessment of assessments rather than seeking to pioneer new knowledge. It endeavours to present a range of scientific perspectives and to be policy-relevant but not policy-prescriptive. Like its predecessors, it continues to explore possible approaches and vantage points from which to examine the science-policy interface, as well as scientific approaches that can inform policies building upon integration and interlinkages across sustainable development goals, sectors, and issues.

The report was prepared specifically to inform the discussions at the high-level political forum on sustainable development in 2016. The theme chosen for the HLPF is 'ensuring that no one is left behind'. This theme is a recurring thread in the report.

The content of this report is based on the knowledge and expertise of 240 contributing scientists and many experts from more than 20 United Nations agencies. It aims to bring together information and cutting-edge knowledge from a wide range of sustainability science disciplines across all regions of the world. As with the previous reports, the preparatory process benefited from a wide range of forms for outreach, including open calls for inputs and science briefs, collaboration among United Nations agencies, expert group meetings, and targeted requests for inputs to scientists and experts from multiple disciplines.

Chapter 1 aims to provide a reference frame for exploring the implications of the principle of "leaving no one behind" for the operationalization of the SDGs from a science-policy perspective. The chapter showcases how those left behind are defined by different disciplines and development practitioners. It points to existing mechanisms for targeting and reviews of the effectiveness of development interventions in targeting and reaching those left behind, and briefly documents commonly used development strategies in different SDG areas and existing scientific

reviews of how closely aligned they are with the objective of leaving no one behind and with the aspiration to reach the furthest behind first.

Chapter 2 continues the focus on interlinkages of previous editions of the report. It examines interlinkages between infrastructure, inequality and resilience. Based on a consultation of scientists from different disciplines, it highlights important channels of interconnection among these areas and distils the results of scientific analyses of the synergies and trade-offs among them. The chapter aims to strengthen science-policy interface by showing policymakers how key interlinkages are analysed by the scientific community, while providing the scientific community with some key policy questions and highlighting areas that may need further research.

Chapter 3 provides an overview of perspectives of more than 50 scientists on technology and the sustainable development goals. It aims to showcase promising actions and policy elements for fully leveraging technology for the achievement of the SDGs, also paying attention to the imperative to leave no one behind. It provides an overview of a range of technologies that contributing scientists identified as the most crucial in the implementation of the SDGs from now to 2030.

Chapter 4 focuses on institutions as essential components and enablers of inclusive societies. As examples of institutions relevant to sustainable development that can foster inclusiveness, the chapter showcases National Councils for Sustainable Development and parliaments. The chapter looks at these institutions both in terms of how inclusive they are, and how important they are in supporting inclusive outcomes.

The HLPF is mandated to ensure appropriate consideration of new and emerging sustainable development challenges. **Chapter 5** provides an overview of existing approaches and processes to identify emerging issues for sustainable development. It introduces potential guiding criteria that could be used in future editions of this Report to scan, among a multitude of emerging issues identified by different processes, those that the HLPF could consider putting on its agenda. The chapter also presents the main insights from an expert consultation process whose aim was to test the methodology proposed for identification of emerging issues and examine how best these issues could be brought to the attention of policy-makers.

The main conclusions from the report are gathered in **Chapter 6**, which also provides a short recapitulation of key lessons learned from three editions of the Global Sustainable Development Report in terms of content addressed and involvement of scientific communities.

ENSURING THAT NO ONE IS LEFT BEHIND AND THE 2030 AGENDA

“4. As we embark on this great collective journey, we pledge that no one will be left behind. Recognizing that the dignity of the human person is fundamental, we wish to see the Goals and targets met for all nations and peoples and for all segments of society. And we will endeavour to reach the furthest behind first.” (emphasis added)

A/RES/70/1. Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015.

1.1 Introduction

This introductory chapter attempts to briefly frame the theme of 'ensuring that no one is left behind' in the context of the 2030 Agenda and the sustainable development goals (SDGs), from a science-policy perspective.

Ensuring that no one is left behind is at the core of the 2030 Agenda for Sustainable Development, and is a fundamental guiding principle for its implementation. The pledge that 'no one will be left behind' appears at the outset in the second paragraph of the preamble and in paragraph 4 of the 2030 Agenda. In those same paragraphs, the Agenda attributes to all countries and all stakeholders the responsibility to implement the agenda. It emphasizes that goals and targets should be met for all nations and peoples and for all segments of society; and highlights the endeavour to reach the furthest behind first. As such, the pledge to leave no one behind relates to the Agenda in its entirety.

Fifteen years from now, when the current and the next generations together assess the implementation of the 2030 Agenda, a key measure of success will be the extent to which it has allowed every single person to thrive, regardless of gender, race, age, religion, place of residence, or any other factor. The call to leave no one behind has been heeded – many organizations have already started to work on the implications of this principle for the delivery of the 2030 Agenda¹ and for their missions.²

'Ensuring that no one is left behind' encompasses multiple meanings. For some, it will mean focusing action on disadvantaged groups of society, for example, people living in poverty, women, indigenous people, youth, older people, persons with disabilities, migrants, or people in conflict and post-conflicts situations. Others will focus on reducing inequalities between countries, including focusing action on countries at the lowest stages of development or facing challenging circumstances. Still others would propose other views and definitions of who those left behind are. Views may also differ on how society can effectively provide opportunities to those left behind. By implication, how different people foresee the timing and sequencing of necessary actions to ensure that no one is left behind might also vary. This has direct implications for how the 2030 Agenda will be implemented.

At the conceptual and practical levels, four broad questions need to be addressed. First, who are those left behind? Second, why are they left behind? Third, what methods and mechanisms exist to reach and involve them? And fourth, what types of strategies and policies would be appropriate in order to leave no one behind? Empirical evidence from a broad range of scientific disciplines, in particular social sciences, can inform decision-making on these questions. It can also provide elements to assess how ambitious and challenging it will be to realize the commitment of leaving no one behind, by revealing to what extent strategies and policies that have been used in various SDG areas focused on this objective, and what their success has been in achieving it. Beyond the commitment to leave no one behind, the ambition to 'endeavour to reach the furthest behind first' is also a transformative aspect of the 2030 Agenda.³ Does this imply different implementation strategies than those commonly used in the past? Here also, scientific evidence can inform the debate.

The chapter examines the implications of 'ensuring that no one is left behind' for the implementation of the 2030 Agenda. It briefly discusses the connections between the commitment to leave no one behind and three related concepts that are prominent in the 2030 Agenda: poverty, inclusiveness and inequality. The chapter then reviews some of the concepts and methods used to identify those left behind, as well as some of the methods that are used to reach them in practice. Finally, the chapter highlights

examples of development strategies used in various areas of sustainable development and what empirical evidence can tell us about their effectiveness in leaving no one behind.

The chapter serves as an introduction to other chapters of the report and is not intended as a comprehensive overview of the literature on inclusiveness, equity, inequality, social inclusion, discrimination and other related topics, which would need considerable space.⁴ Similarly, the chapter does not attempt to answer the question of why some groups or countries are left behind. Obviously, answering this question is critical to devising appropriate policies and strategies. Lastly, detailed discussions of the policy implications of 'leaving no one behind' for specific areas of the SDGs are left for other chapters.

1.2 Leaving no one behind, poverty, inclusiveness and equality

The pledge to leave no one behind relates closely to three important dimensions of the 2030 Agenda: poverty, inclusiveness and inequality. Poverty in its various dimensions remains at the center of the New Agenda, as it used to be at the center of the Millennium Development Goals and was identified as one of the three overarching objectives of sustainable development.⁵ In the eyes of the lay person, poverty is an obvious way to identify those left behind. Poverty measures have also commonly been used to identify those left behind in development practice (see below).

The word 'inclusive' was used in the title of five of the Goals. It is also used in five of the targets, and 22 times in other parts of the 2030 Agenda. That emphasis suggests that, in the eyes of the negotiators who crafted the Agenda, it was a very important concept.⁶ Inclusiveness (social, economic, political and cultural) talks to the notion of empowerment and the principle of non-discrimination. It refers to the need to include everyone in societal processes, and conveys the notion that people should not only be allowed to thrive, but should have a voice and effective opportunities to shape the course of development. SDG 5, SDG 10, SDG 16, inter alia, have very strong connections to inclusiveness and empowerment. The cross-cutting commitment to disaggregate data to monitor the SDGs also reflects the notion of inclusiveness. One might argue that the prominence of this notion in the 2030 Agenda extends the concept of participation that was pioneered in Agenda 21.

The concept of equality – or inequality – is also prominent in the 2030 Agenda. It has a standalone goal, SDG 10, which aims to reduce inequalities within and among countries, and is also directly reflected in goals and targets across the Agenda, including in the goals for health, education, gender, and others.

Equality as a concept has traditionally been related to equality of outcomes and equality of opportunities. Inequality of outcomes can be found everywhere, as any variable with a distribution over a population (e.g., income or access to certain services) generates some form of inequality, which can be measured by different statistics. Inequality of opportunities refers to cases where different people or sections of society do not have the same opportunity to participate in society and to flourish. This can be the result of explicit and implicit barriers to certain sections of the population, such as discrimination in the law, in custom and in practice, which limit access to opportunities for certain groups in society. In addition, equality can also be seen in a political sense and related to empowerment. Equality in that sense relates to giving different people and sections of society equal voice and equal opportunities in political and social institutions, and more control over their lives.⁷

The different declinations of inequality are not mutually exclusive, as pointed out by many.⁸ All are relevant in relation to leaving no one behind. Different communities concerned with inequality and discrimination may put different emphasis on them. For example, in approaches focused on human rights, inequalities of outcomes in regard to specific rights will be a primary indicator for concern (e.g. the gender wage gap, school enrolment rates). Inequality of opportunities and discrimination would then be seen as the means through which unequal outcomes happen; and empowerment as one of the means to combat such discrimination and remedy inequalities of opportunities and outcomes. In the development literature, a strong tradition that underpinned development programmes worldwide focused on inequalities of outcomes and on increasing the number of “haves” or reducing the number of “have-nots”. For example, rural electrification programmes and programmes of universal access to drinking water and sanitation put emphasis on the number of connected households, in addition to affordability and quality of the services. Yet, development institutions are also interested in access to basic services as a necessary condition for achieving greater equality of opportunity. For example, access to quality education and clean drinking water is seen by development practitioners as a key to opportunities in terms of improved health and education outcomes, as well as higher productivity and income.⁹

1.3 Leaving on one behind in Sustainable Development Goals and targets

‘Leaving no one behind’ is not just an overarching imperative expressed in the 2030 Agenda. Many targets of the SDGs provide concrete objectives in direct relation with that aim; many targets also point to specific means through which it

can be achieved – providing concrete illustrations of how to ensure that no one is left behind.

Several targets relate to the international level, and aim to ‘leave no country behind’. Those focus on groups of countries traditionally identified in the United Nations, such as developing countries, least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS). Such targets cover a broad range of topics, from economic growth in LDCs to industrialization and participation in global trade, to broadening and strengthening the participation of developing countries in the institutions of global governance (Table 1-1).

In turn, many SDG targets detail supporting measures to achieve these objectives. Those include: measures related to official development assistance and other financial means; commitments to increase or support investment in specific sectors, with focus on developing countries, for example agriculture, medicines and infrastructure; international cooperation and technical assistance; actions on trade; promoting the rule of law at the international level; enhancing cooperation on and access to science, technology and innovation. In addition, many other SDG targets refer to groups of countries in special situations as deserving special attention.

At the national level, targets explicitly aiming at ‘leaving no one behind’ are multiple. Many targets aim to reduce inequalities of outcome. This includes: ensuring universal and equal access to basic services; ensuring access to food for all, and end malnutrition; achieving and sustaining income growth of the bottom 40 per cent of the population at a rate higher than the national average; and doubling agricultural productivity of small-scale food producers. Targets that detail measures in support of these objectives include: putting in place social protection systems and policies; building the resilience of the poor and vulnerable; access to employment; and expanding infrastructure with a focus on affordable and equitable access for all.

Other targets focus on ending discrimination. This includes: empowering and promoting the social, economic and political inclusion of all; ending all forms of discrimination against women and girls; eliminating violence against women and girls; ending abuse, exploitation, trafficking and all forms of violence against and torture of children; recognizing unpaid care and domestic work; equal access to technical, vocational and tertiary education; and equal pay for work of equal value. Targets that detail measures in support of these include: eliminating discriminatory laws, policies and practices and promoting and enforcing appropriate legislation, policies and action in this regard; promoting the rule of law and ensure equal access to justice for all; protecting fundamental freedoms; eradicating forced labour, including the worst forms of child labour, and

Table 1-1: Examples of targets in the SDGs that relate to leaving no country behind

Aspirational targets	Means to ensure that no country is left behind
<ul style="list-style-type: none"> • Reduce inequality between countries (10) • GDP growth target for least developed countries (8.1) • Promote inclusive and sustainable industrialization with a focus on least developed countries (9.2) • Broaden and strengthen the participation of developing countries in the institutions of global governance (10.6, 16.8) • Promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed (2.5) • Increase the economic benefits to SIDS and LDCs from the sustainable use of marine resources (14.7) • Significantly increase the exports of developing countries (17.11) 	<ul style="list-style-type: none"> • Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest (10.b) • Provide adequate and predictable means for developing countries, in particular LDCs, to implement programmes and policies to end poverty in all its dimensions (1.a) • Increase investment in agriculture in developing countries (2.a) • Correct and prevent trade restrictions and distortions in world agricultural market (2.b) • Support the research and development of vaccines and medicines for ... diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines (3.b) • Scholarships for developing countries (4.b) • International cooperation for teacher training (4.c) • Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support (9.a) • Increase Aid for Trade support for developing countries (8.a) • Implement the principle of special and differential treatment for developing countries (10.a) • Implementation of duty-free and quota-free market access for LDCs (17.12) • Promote the rule of law at the international level (16.3) • Enhance cooperation on and access to science, technology and innovation (17.6) • Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries (17.7) • Support developing countries in strengthening the capacity of national statistical offices and data systems (17.18)

Source: Authors' elaboration.

Note: Target number in parenthesis.

Box 1-1: Gender equality, vulnerability and climate change in the science-policy briefs submitted for the GSDR 2016

Gender discrimination persistently affects every aspect of development in many countries. While the need for gender equality and women's empowerment is not an emerging issue, there appears to be a growing understanding within various scientific disciplines that in order to promote equality and improve women's rights, complex underlying social norms must be examined and challenged.

Research from numerous countries in Africa, Asia and Latin America shows that gender relations, roles and perceptions are rapidly shifting at the local level as a result of adaptation to impacts from environmental degradation and climate change. Yet too often, policies intended to address gender do not explicitly discuss men's activities and contributions (or the absence thereof), and focus only on participation by women, without examining the underlying social and cultural dimensions of gender that are critical for enabling women's equality and empowerment.^{10, 11}

To understand vulnerabilities and capacities and inform effective and responsive adaptation planning, assessments of climate change vulnerability and impacts should examine the ways in which gender intersects with other pertinent factors, such as ethnicity, economic assets and social status.¹² Indeed, equitable policy making in general must strive to identify those most vulnerable based on a range of socio-demographic variables including gender, class, education, access to assets.

Source: science-policy briefs submitted for the GSDR 2016.

human trafficking; protecting labour rights; and providing legal identity for all, including birth registration.

Lastly, many targets relate to opportunities, empowerment and enhancing capabilities. This is the case of targets related to universal primary and secondary education, literacy and numeracy; ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life; ensuring responsive, inclusive, participatory and representative decision-making; universal access to sexual and reproductive health and reproductive rights; full and productive employment and decent work; and increase in skills for employment and entrepreneurship. Targets that detail measures in support of these include: ensuring equal access to economic resources; provision of public services and infrastructure; enhancing access to markets and financial services for households and SMEs; policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation; fiscal, wage policies aiming to progressively achieve greater equality; use of enabling technology, in particular information and communications technology; access to sexual and reproductive health-care services; promotion of shared responsibility within the household and the family; participatory planning and resource management; and public access to information.¹³

In addition, many SDG targets specify segments of the population that deserve special attention. For example, target 11.3 on sustainable transport specifies "with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons".

1.4 Who are those left behind?

1.4.1 Defining and identifying those left behind

In order to make the imperative to leave no one behind a reality on the ground, the first question to address is who those left behind are. This question can itself be

decomposed into sub-questions, reflecting the importance of the spatial and temporal dimensions in development. A first sub-question is who are those left behind now, and who could they be in the future? A second sub-question is, where do those left behind live? The former is critical to reflect the dynamic nature of poverty, inequality and deprivation (see 1.4.2 below) and the fact that the Agenda will span the next fourteen years. It also reflects the dimension of intergenerational equity.¹⁴ The latter is critical in order to address the problem on the ground, as those left behind may be different subsets of the population in different places (e.g. in urban areas versus rural areas). In addition, most if not all development interventions – from investment in schools to water and electricity infrastructure to access to finance – have an inherent spatial component to them.

As discussed above, one of the ways to identify those left behind that has been widely used in the development discourse and practice has been to focus on poverty, and especially on income poverty.¹⁵

In recent decades, the notions of multi-dimensional poverty and multiple deprivations have gained traction both at the conceptual and practical levels, and are frequently used to identify people, groups or communities left behind. Both concepts respond to the need for more comprehensive ways to identify those left behind in society, beyond poverty income measures. Since 2010, the United Nations Development Program (UNDP) has published the Multidimensional Poverty Index (MPI), replacing the Human Poverty Index popular since 1997. The MPI incorporates ten weighted indicators that measure education, health and standard of living.¹⁶ Other examples include: the Better Life index produced by the OECD¹⁷; the Social Progress Index produced by Social Progress Imperative¹⁸; and the Human Opportunity Index (HOI), which was used for measuring inequality of access to infrastructure across time in Latin America.¹⁹ Such composite indexes have been used to better understand the factors that affect well-being and deprivation.

A methodological caveat that applies to composite indexes in general relates to the multi-dimensionality of concepts

Box 1-2: Evolution of income poverty during the MDG period

The incidence of income poverty has considerably declined over the past couple of decades. Among emerging and developing economies, in 2012 – the latest year with available data – the share of those in extreme poverty was just under 15 per cent of the total world population (excluding advanced economies). Projections indicate that the global extreme poverty rate has fallen further, to 12 per cent, as of 2015. This is down significantly from 47 per cent in 1990 and 25 per cent in 2005. Countries in Asia and the Pacific, notably China and India, have been particularly effective in reducing poverty over the last couple of decades. Progress among African countries has been less pronounced, as 41 per cent of the population in sub-Saharan Africa still live in extreme poverty. In Western Asia, the extreme poverty rate is expected to increase between 2011 and 2015.

Source: The Millennium Development Goals Report 2015, United Nations, New York, 2015.

such as poverty and deprivation, which by extension applies to concepts such as “those left behind” and “the furthest behind”. If there is more than one relevant dimension, it becomes a matter of convention or value judgment to define who is “behind”. In addition, some indicators of well-being or deprivation may not be considered so by some groups of communities with different sets of values.²⁰ However, from a normative side, there is generally broad agreement that people (or households) who do not have access to certain rights, goods or services are “left behind”.²¹ Such sets of “must haves” and the corresponding thresholds defining deprivation are often enshrined in national law and practice. Many of them are also inscribed in international law and standards.²²

In practice, those “left behind” may be different groups in different societies. For example, when considering nutrition, many countries still face stunting as the most pressing challenge; in other countries, obesity and its consequences in relation to health, mobility, and well-being, is more significant. Similarly, in education, future challenges in developed countries seem different from what they were a few decades ago. A recent OECD study shows that girls outperform boys in reading in almost all of the study countries. This gender gap is particularly large in some high-performing countries, where almost all underperformance in reading is seen only among boys, demanding special strategies to address this gap.²³

Statistics and data are increasingly available on individual indicators of deprivation, even if data availability remains a major challenge. This is reflected in the proliferation of tools, instruments and processes that monitor outcomes in specific areas of sustainable development.²⁴ In addition, research has also focused on examining the intersection between specific dimensions of deprivation and other SDG areas.²⁵

However, for operationalizing the notion of those left behind or furthest behind, it is often the combination of deprivations, in a spatial context, which matters. Advances in the conceptualization of poverty, inequality and exclusion as multidimensional phenomena, coupled with fast

progress in geographic information systems over the past decades, have extended the realm of spatial analysis of poverty. In particular, it has resulted in rapid growth in the availability of so-called “multiple deprivation maps”, which combine social, economic and environmental deprivation indicators. Such maps are published by both Governments and non-government actors. In both developed and developing countries, they have been used as an instrument for planning and management at different geographical levels, from national to sub-national to municipality level to local down to the housing block level.²⁶ Yet, data availability remains a critical issue. As highlighted in Agenda 2030, critical data gaps remain with respect to monitoring the SDGs, and this is more acute in developing countries.²⁷

1.4.2 Dynamic versus static measures of inequality and poverty

Because of the way they tend to be presented, many images of poverty and inequality, for example “the bottom billion”, “those furthest behind”, are easily interpreted in static terms, implicitly conveying the idea of stable and clearly identifiable groups within a population. This is reinforced by the fact that the poverty headcount ratio is the most common measure of poverty, and poverty is most widely measured as a stock.^{28, 29}

However, inequality and poverty are intrinsically dynamic. Individuals or households move across the income distribution and from one category to another, making the groups of the population at risk of poverty bigger than the stock of poor at any point in time. Shocks of various natures affecting households (e.g. health, employment, food prices, natural disasters) cause them to move in and out of poverty. In some countries, temporary spells below the poverty line are experienced by a broad cross-section of society.³⁰

Therefore, static analyses are not sufficient to address inequality and poverty.³¹ Exposure to poverty and other types of deprivation and capacity to exit poverty depend not only on the nature of shocks affecting individuals or households, but also on the initial position of households in terms of

Box 1-3: The Small Area Index of Multiple Deprivation in South Africa

The Small Area Index of Multiple Deprivation 2011 is the latest in a series of indices of multiple deprivation for South and Southern Africa that have been developed using census data to describe multiple deprivation at sub municipality level. The original South African study for 2001 was at ward level and was followed by a series of further refinements to develop a very small area or datazone level index for a series of child focused indices and updates to 2007 at municipality level. Indices have also been produced for Namibia. The ward and datazone level indices have been used in many ways by national and provincial government, including targeting areas for the take-up of child support grant, prioritising wards for specific antipoverty interventions and in the case of the City of Johannesburg, as part of the mechanism to target its indigence policy. Specific reports utilising the indices have been developed for various provinces and for the city of Johannesburg.

Source: Noble, M., Zembe, W., Wright, G., Avenell, D., (2013) Multiple Deprivation and Income Poverty at Small Area Level in South Africa in 2011 Cape Town: SASPRI.

Box 1-4: Disaggregation in the SDG Global Indicator Framework

The concept of “no one left behind” implies that the agenda’s Goals and targets should be met for all nations and people and for all segments of society. Ensuring that this commitment is translated into effective action requires data and analysis on the status of all groups of the population, including the most vulnerable and difficult to reach. However, the disaggregated data needed to address all groups – including children, youth, persons with disabilities, people living with HIV, older persons, indigenous peoples, refugees, internally displaced persons and migrants – as specified in the 2030 Agenda, are sparse. In the context of the SDG global indicator framework, the Inter-agency and Expert Group on SDG Indicators has recommended that all indicators referring to targets that explicitly mention particular groups of the population should be disaggregated for those groups. Moreover, SDG indicators will need to be disaggregated in a way that highlights the challenges of the most vulnerable populations and provide an understanding of progress and implementation in sub-national and local contexts, to ensure that no one is left behind. The list of global SDG indicators agreed by the UN Statistical Commission in March 2016 contains an overarching principle that requires that “Sustainable Development Goal indicators should be disaggregated, where relevant, by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics”.

Aggregated statistics often mask the situation for specific vulnerable groups. For example, while over 90 per cent of births in urban areas are attended by skilled health personnel, the share is only 72 per cent for rural areas. Children from the poorest households are nearly four times more likely to be out of school than their counterparts from the richest households. Work to identify data sources and recommend improvements in data collection and integration of innovative data sources is underway. Substantive experts who are familiar with the challenges in achieving specific SDG targets are involved in identifying the demand for disaggregated data, and data producers are working to identify ways to expand data availability, analysis and utilization to address all groups and geographical locations. The current proposed work stream of the IAEG-SDGs on data disaggregation will provide the overall direction for the work to be undertaken by the national and international statistical systems, including by promoting a dialogue between data producers and data users on data disaggregation needs and data and policy needs.

For some countries, there are also political and/or legal concerns in providing disaggregated data at the individual level in terms of confidentiality, privacy and safety of the respondents. For example, some countries legally prohibit the collection of information on race and religion, or sexual orientation, among other characteristics.

Source: UN Secretary-General’s Report on SDGs, Report of the IAEG-SDGs to the 47th Session of the UNSC, and contribution from UNEP to the GSDR 2016.

endowments (assets and income) and entitlements (access to goods; access to protection). Therefore, instruments to protect against shocks, as well as instruments to improve the circumstances of households such as opportunities for employment, are both required, as are instruments to support permanent exits from poverty and address inequality.³² The necessity to consider differentiated policies according to the transitory or permanent nature of deprivations faced by individuals and households has long been recognized in many fields. For example, policies aiming to address unemployment have long distinguished long-term unemployment from more transitory spells, and Governments have put in place different instruments in this regard.³³

As mentioned above, the temporal dimension is also intrinsically important, as the concept of sustainable development fully integrates the needs and well-being of future generations. In this context, understanding how current strategies, policies and actions are likely to impact future generations is critical.³⁴

1.4.3 Reaching those left behind

Beyond identifying those left behind, reaching them through delivery mechanisms (such as social services, basic

services, training programmes, etc.) necessitates general administrative and institutional will and capacity, trained personnel (e.g. community workers, social workers) as well as specific administration, management and accountability systems. Targeting has often been used in order to reach specific groups of the population.

Targeting methods can be broadly categorized into: direct individual/household assessment by an official or a group of community members; targeting based on a specified category such as age group or region; and self-selection targeting for programmes that are universal but are designed in a way to encourage the target categories to use the programme and discourage others to do so. All methods have advantages and drawbacks (see Table 1.2). Usually, interventions use two or more methods of targeting combined. Poor countries tend to use more self-selection and categorical targeting methods while less poor countries use relatively more individual assessments.

The costs of targeting are associated to the costs of collecting the information to identify the targeted group, which are expected to increase with the precision of the targeting; private costs of the beneficiaries, for example transportation costs; incentive costs that may induce people to change their behaviour to become part of the

targeted group; the social costs of identifying households as poor, which may cause social stigma; and political costs of excluding others from the programme, such as the middle class.³⁵

In 2004, a comprehensive review of 122 case studies drawn from 48 countries and published in academic journals in the period from 1990 to 2002 assessed the effectiveness of mechanisms used to target the poorest and most vulnerable in interventions that included cash, near-cash

and food transfers, food and non-food subsidies, public works for job creation and social funds. The study found that different targeting methods showed a range of results in terms of effectiveness in reaching the target groups.³⁶ Another comprehensive review done by the World Bank in 2005 for electricity and water subsidies found that most of the existing subsidies at the time were regressive, as the combined effects of lower connection rates, lower take-up given access, and lower consumption in the poorest groups meant that the bulk of subsidies was reaching high and middle-income groups.³⁷

Table 1-2: Typology of existing methods to target those left behind

	Description	Advantages	Limitations	Appropriate circumstances
Individual/household assessment				
Means testing	Direct assessment of the eligibility of the individual or household	<ul style="list-style-type: none"> • Potentially very accurate 	<ul style="list-style-type: none"> • Requires high levels of literacy and documentation • Administratively demanding • May induce work disincentives 	<ul style="list-style-type: none"> • High administrative capacity • Level of benefits justify administrative costs
Proxy means tests	Easily observed characteristics are used to give a score to households, which is compared to a cut-off to determine eligibility	<ul style="list-style-type: none"> • Verifiable • Less likely than means test to affect work effort 	<ul style="list-style-type: none"> • May seem arbitrary • Requires literate and computer-trained staff • May be inaccurate at household level • Insensitive to fast changes in welfare 	<ul style="list-style-type: none"> • Reasonably high administrative capacity • Stable situations • Larger programme to maximize return for fixed overhead
Community targeting	Independent community members decide who in the community should receive benefits	<ul style="list-style-type: none"> • Local knowledge • Local definition of need and welfare 	<ul style="list-style-type: none"> • Local actors may have other incentives besides good targeting • May lower community authority or cohesion • May perpetuate patterns of social exclusion • Local definition of welfare may make evaluation more difficult 	<ul style="list-style-type: none"> • Local communities are clearly defined and cohesive • For programmes that include a small portion of the population • Temporary and low benefit programmes
Categorical targeting				
Geographical targeting	Eligibility determined by the location of residency	<ul style="list-style-type: none"> • Simple • No labour disincentive • Unlikely to create stigma • Easy to combine with other methods 	<ul style="list-style-type: none"> • Depend on accuracy of information • Performs poorly where intended beneficiaries are not spatially concentrated • Can be politically controversial 	<ul style="list-style-type: none"> • Considerable spatial variation • Limited administrative capacity • Delivery of intervention use a fixed site such as school or clinic
Demographic targeting	Eligibility determined by age, gender or some other demographic characteristic	<ul style="list-style-type: none"> • Simple • Often politically popular • Low stigma 	<ul style="list-style-type: none"> • Inaccurate where demographic characteristics poorly correlates with those left behind 	<ul style="list-style-type: none"> • Good register of demographic characteristics • Low-cost targeting method required
Self-targeting				
	Intervention is open to all but it is designed in a way that take-up for it will be much higher among the intended target group	<ul style="list-style-type: none"> • Administrative cost likely low • Unlike to induce labour disincentives 	<ul style="list-style-type: none"> • May impose costs on the recipients • Stigma may be considerable • May be difficult to deliver large benefit 	<ul style="list-style-type: none"> • Low administrative capacity • People move rapidly in and out target group • Behaviour separates intended from non-intended beneficiaries

Source: Authors' elaboration, based on Coady et al. (2004) and Komives et al. (2005).

1.5 Strategies for ensuring that no one is left behind

Leaving no one behind will require, above all, understanding and addressing the root causes of poverty, inequality, and marginalization.³⁸ As detailed in chapter 4, strategies to leave no one behind will require a combination of factors, including: legal, regulatory components; multiple institutions intervening at various levels; and potentially broader societal changes, e.g. in social norms. In particular, the principle of 'leaving no one behind' can also have legal implications.³⁹

While leaving no one behind is a cross-cutting dimension of the new Agenda, ultimately, reaching those left behind will require specific strategies, whose nature may differ across SDG areas. Some areas may lend themselves more easily to strategies that focus on leaving no one behind as a core objective. Empirical evidence from past decades can inform on how concerns relating to inclusiveness can be reflected in various strategies, and how existing strategies have performed in this regard.

1.5.1 Economy-wide growth strategies.

In the context of macro-economic (economy-wide) growth strategies, poverty is often used as a proxy measure for those left behind. As a result, a large volume of economic literature has focused on the impacts of economic growth on poverty. Debates among development practitioners on how to achieve poverty eradication most efficiently have existed for decades.⁴⁰ While economic growth is generally seen as a necessary ingredient for poverty eradication, the precise channels through which growth translates into poverty reduction, as well as the role that States, policies and institutions can play in these mechanisms, have remained fiercely contested.^{41, 42, 43}

In terms of strategies for reducing income poverty, it was popular at the end of the 20th century to contrast macroeconomic pursuit of growth to increase the average income of the population and so called "pro-poor" growth strategies, which in addition to general growth also aim for relatively faster growth of incomes of poorer households. While the latter seem to embed the notion of leaving no one behind, a concrete challenge is highlighted in the literature in terms of how to identify when a strategy is really pro-poor, or how to identify strategies that are "more pro-poor" than others. Different indicators could be used and may provide different answers.⁴⁴ In addition, since the beginning of the 2000s, a general consensus has developed that inequality can negatively affect growth.

There has been considerable debate regarding the effectiveness of different strategies. One part of the literature has interpreted the empirical evidence as showing that, in the medium- to long-run, most of the

variation in changes in poverty in a sample of developing countries during the 1980s and 1990s can be attributed to growth in average incomes rather than poverty-reducing pattern of growth in relative incomes, suggesting that broad-based growth policies should be central to the pro-poor growth agenda.⁴⁵ Others have pointed that analysis of the effectiveness of poverty reduction strategies should be mindful of the differences in underlying structural economic dynamics, not only across broad economic sectors (i.e. agriculture, industry and services) but also within them⁴⁶, and of differences in integration of economies within global markets.⁴⁷ Lastly, the success of China in reducing poverty during the past decades has highlighted the importance of the State beyond its minimal Washington consensus role of providing an "enabling environment", including in that case important efforts to invest in education and conducting reforms that provided broad access to assets such as land, and implementing a long-term forward-looking industrial policy with a view to advancing industrialization and structural transformation.^{48, 49}

A key element for reaching the furthest behind is promoting the shift of labour from low- to high-productivity and high-wage activities.⁵⁰ Others emphasise the importance of broad-based economic growth that is conducive to the generation of decent jobs and stimulates the transition from informal economies to formal economy and employment, with a focus on small and medium enterprises.⁵¹ People's living standards depend on how they make a living. Hence, the importance of agriculture for rural poor and of manufacturing for urban poor⁵², and the need for strategies to eradicate poverty to be mindful that the lives and livelihoods of rural households in least developed and developing countries are becoming gradually dissociated from agriculture as non-farm opportunities have expanded.⁵³

1.5.2 Social protection systems⁵⁴

Social protection systems are a fundamental component of the way societies manage to leave no one behind. In the most general sense, the idea of social protection "... captures how members in societies support each other in times of distress".⁵⁵ This includes in particular social insurance systems, defined as contributory funds that people can draw from under specific, pre-defined circumstances, such as exclusion from the workforce due to unemployment (unemployment benefits) and old age (pensions); and social assistance measures, defined as transfers provided to different groups of households or individuals in relation to specific circumstances such as having children (child benefits, maternity coverage) and disability (disability allowances).

The majority of the people living in developing countries have weak and incomplete government provided social protection systems. The International Labor Organization

reports that only 27 per cent of the global population have access to comprehensive social security systems, whereas 73 per cent are covered partially or not at all.

Despite a large expansion of schemes, existing social protection policies do not sufficiently address the income security needs of children and families, particularly in low- and middle-income countries with large child populations. Specific child and family benefit programmes rooted in legislation exist in 108 countries, yet often cover only small groups of the population. In 75 countries, no such programmes are available at all.⁵⁶ Worldwide, less than 40 per cent of women in employment are covered by law under mandatory maternity cash benefit schemes; 57 per cent if voluntary coverage (mainly for women in self-employment) is included. Due to ineffective enforcement and implementation of the law in some regions, effective coverage is even lower. An increasing number of countries are using non-contributory maternity cash benefits as a means to improve income security and access to maternal and child health care for pregnant women and new mothers, particularly for women living in poverty. However, significant gaps remain.⁵⁷

In many countries with high shares of informal employment, pensions are accessible only to a minority. Under existing laws and regulations, only 42 per cent of people of working age today can expect to receive contributory or non-contributory social security pensions from contributory schemes in the future, and effective coverage is likely to be even lower. Many countries have recently made efforts to expand the coverage of contributory pension schemes and to establish non-contributory pensions to guarantee at least basic income security guarantee in old age to all. With rapid ageing of the population in many countries, pension systems will face considerable pressure in the future.

More than 90 per cent of the population living in low-income countries remains without any right to coverage

in health. Despite coverage, health care is frequently neither available nor affordable, and access to needed services can lead to poverty. Often, even people who are legally covered experience limited health benefits, high out-of-pocket payments and a lack of the health workers needed to deliver services, or cannot access services due to discrimination. Recently, the UN General Assembly requested ILO, along with WHO and other UN agencies, to give high priority to working jointly towards universal health coverage, and towards the associated goal of establishing social protection floors. In developed countries, according to the OECD, health care quality is not able to keep pace with the demands resulting from ageing population and the growing number of people suffering from one or more chronic diseases.⁵⁸

1.5.3 Area-based strategies

The idea that development strategies should be integrated (i.e. combining a range of actions in different sectors) and focus on well-defined geographical areas has a long history in development practice, from integrated rural development projects in the 1970s,⁵⁹ to the Millennium Villages Project, to slum upgrading and urban rehabilitation programmes. At the basis for such interventions is the recognition that the place where people live is often an overwhelming determinant of the outcomes they achieve and opportunities they are offered, in areas as diverse as access to shelter and basic services, access to education, health, transport, and jobs. Strategies used in this context tend to emphasize a comprehensive range of intervention, covering sectors as diverse as shelter, water and sanitation, electricity, infrastructure, and in the case of rural programmes agriculture and land management. The success of these interventions has been very variable.^{60, 61} For example, in slum upgrading programmes across the world, it has been a recurrent feature that programmes tended to focus on physical aspects, while not necessarily taking proper account of economic and social aspects, for

Box 1-5: Selected recent figures on the reach of social protection systems:

- Only 27 per cent of the global population enjoy access to comprehensive social security systems, whereas 73 per cent are covered partially or not at all.
- Worldwide, 2.3 per cent of GDP is allocated to public social protection expenditure ensuring income security during working age; regionally, levels vary widely, ranging from 0.5 per cent in Africa to 5.9 per cent in Western Europe.
- On average, governments allocate 0.4 per cent of GDP to child and family benefits, ranging from 2.2 per cent in Western Europe to 0.2 per cent in Africa, and in Asia and the Pacific.
- 48 per cent of all people over pensionable age do not receive a pension.
- More than 90 per cent of the population living in low-income countries remains without any right to coverage in health. Globally, about 39 per cent of the population is lacking such coverage.

Source: ILO World Social Protection Report 2014/2015.

Box 1-6: Social protection floors

SDG target 1.3 commits to "Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable". ILO Recommendation No. 202 sets out that member States should establish and maintain national social protection floors as a nationally defined set of basic social security guarantees which secure protection aimed at preventing or alleviating poverty, vulnerability and social exclusion (ILO, 2012a). These guarantees should ensure at a minimum that, over the life cycle, all in need have access to at least essential health care and basic income security. These together ensure effective access to essential goods and services defined as necessary at the national level. More specifically, national social protection floors should comprise at least the following four social security guarantees, as defined at the national level:

- (a) access to essential health care, including maternity care;
- (b) basic income security for children, providing access to nutrition, education, care and any other necessary goods and services;
- (c) basic income security for persons in active age who are unable to earn sufficient income, in particular in cases of sickness, unemployment, maternity and disability; and
- (d) basic income security for older persons.

Such guarantees should be provided to all residents and all children, as defined in national laws and regulations, and subject to existing international obligations. Recommendation No. 202 also states that basic social security guarantees should be established by law. National laws and regulations should specify the range, qualifying conditions and levels of the benefits giving effect to these guarantees, and provide for effective and accessible complaint and appeal procedures.

Source: ILO, World Social Protection Report 2014/2015, p. 162.

example resulting in forced resettlement or not taking into account jobs that are available around slums but not close to resettlement areas.⁶² As another example, the impacts of the Millennium Villages Project have been discussed among development practitioners, with a range of opinion regarding its effectiveness.^{63, 64}

1.5.4 Sectoral strategies

Many if not most development interventions ultimately focus on sectors or sub-sectors. Therefore, evaluating how such strategies aim to reach those left behind and succeed in doing so in practice is a critical first step to understand the challenges of implementing the 2030 Agenda. This section presents some of the key points that emerge from an investigation of existing scientific evidence on strategies used in a sample of sectors. Table 1-3 provide examples of strategies commonly used in some SDG areas and the extent to which they have been found to reach those left behind, based on existing literature. The full references on which the table is based can be found in Annex to this chapter. Clearly, it would be important to conduct similar investigations for other sectors, including: agriculture, rural development; industry and manufacturing; trade; information and communication technology; infrastructure development; energy; and transport.

It could be expected that evidence is available on the degree to which interventions in various sectors impact the poor, given that, at least since the adoption of the MDGs, the notion of "pro-poor" development strategies has been prevalent. As a consequence, the frameworks used

for evaluation of the impacts and effectiveness of such strategies have increasingly tended to incorporate poverty as one of the criteria by which strategies are assessed.

In practice, the limited review of the literature undertaken for this chapter seems to suggest that evaluations at the "meta" level (e.g. multi-projects, multi-country studies that systematically analyse the impacts of interventions in a comparable methodological framework) are quite rare. Such studies can be found for some sectors in scientific journals⁶⁵ and in reports produced by evaluation units of development institutions.⁶⁶ However, and pending more detailed investigation, they do not seem to exist for all relevant SDG areas and sub-areas. It also seems clear that even when such evaluations exist, they tend to use different criteria for measuring those left behind and for assessing the effectiveness of interventions in reaching them.

In some SDG areas, commonly used development objectives and interventions have the notion of leaving no one behind at their core. For example, providing universal access to water, sanitation, electricity, clean cooking fuels, child protection services, education and health are by definition objectives that focus on those who are 'left behind' with respect to those services. For example, universal access to primary education without discrimination has been at the forefront of international and national efforts.⁶⁷

As a cross-cutting issue and now as a stand-alone SDG, gender equality is one of the main objectives in ensuring that no one is left behind, since women and girls around

the world are often excluded. Even though gender equality is already embodied as an objective in many policy interventions, targeted efforts are often needed to ensure the inclusion of the furthest behind, for example by ensuring the security of girls and women in education institutions and on the journey to and from school, in particular during conflict and crises.⁶⁸

Health is also a good example of an area where reaching the furthest behind has been on the forefront of national and international policy discussion. At the national level, the imperative to leave no one behind in this area is epitomized in discussions on universal health coverage, which have matured in many countries over the past two decades. In addition to universal interventions and access provision, broad but targeted schemes, such as conditional cash transfer programmes aiming at tackling multiple deprivations simultaneously, by definition aim at ensuring that no one is left behind.

In other sectors, the alignment between strategies commonly used and “leaving no one behind” may be less natural. For example, payment for ecosystem services (PES) schemes, which have become a common tool for ecosystem management, do not generally have poverty alleviation as their primary objective, even though some of them have been found to benefit poor and marginalized communities. Indeed, it has been argued that PES schemes may benefit the poor more when they are targeted on protecting the environment rather than on serving as a mechanism for poverty reduction.⁶⁹ In agriculture, there has been a focus on the need to incorporate small-holder agriculture in policy frameworks and development interventions, by providing them with access to markets, to certification schemes, helping them to address non-tariff barriers, etc. The need to ensure that the legal and regulatory framework and the support system for agriculture that are put in place do not discriminate against smallholders is also increasingly recognized.⁷⁰

Even though sectoral strategies may be well aligned with the objective of leaving no one behind, they may still require concerted efforts in order to reach the furthest behind. For example, despite efforts made in the field of child protection to understand the magnitude, causes and consequences of sexual, physical and emotional violence in childhood, without additional targeted interventions to prevent and respond to such violence, victims will continue to be at increased risk of abuse, further compounding poor health and education outcomes and significantly impacting their productivity as adults, continuing the cycle of being “left behind”.⁷¹ Similarly, despite efforts made to provide free access to education, without additional targeted interventions disadvantaged groups such as children and youth with disabilities will continue to be less likely to start school or attend school and complete schooling than other

children.⁷² While facilitating access to safe drinking water in urban areas with existing infrastructure might be done with subsidies to facilitate connections to the network at affordable cost,⁷³ individuals living in remote rural areas may not be reached by such efforts without targeted efforts to widen the network or to provide alternative water sources. Health provides clear-cut examples of an area where strategies that focus on reaching those furthest behind may sometimes be the “best” strategies from a pure efficiency sense.⁷⁴

On the one hand, interventions that aim at reaching the furthest behind first (e.g. marginalized groups and areas characterized by intensive disadvantage) may accelerate overall progress towards sustainable development. Interventions in health, access to water and sanitation and others focusing on access to basic services, have consistently been found to have extremely high social return on investment, with multiple benefits for health, household income, education and labor productivity.⁷⁵ And such interventions often make sense from a narrow cost standpoint. For example, as shown by the Global Energy Assessment, the cost of universal access to modern energy is one or two orders of magnitude lower than the cost of the transformations in energy systems that will be needed to keep climate change under control.⁷⁶

On the other hand, in some sectors reaching those furthest behind may be perceived as involving a trade-off with economic efficiency based on a utilitarian approach. For example, considering the hypothetical case of a health policy that has to allocate resources to different treatments, a utilitarian approach could allocate resources so that the average life expectancy of the whole society would increase the most. An approach that aims to leave no one behind may put more weight on the fact that rich and poor are affected by different types of diseases and may result in an allocation that maximizes the gain in life expectancy for each group. In other cases, the cost of reaching those furthest behind may be high, creating a trade-off between helping a larger number of poor or near-poor or fewer extreme poor.

From the evidence reviewed for this chapter (see Annex for details), it seems clear that in at least some areas of the SDGs, commonly used development interventions may have to be reassessed through the lens of reaching those left behind, and that in some cases, strategies that achieve this objective would not be the ones that are used today. The important point here seems to be the need for explicit recognition of the value that societies put on leaving no one behind, as this has a clear impact on the way alternative development strategies are compared and selected. In practice, this approach requires identifying the relevant groups of interest for policy (including those “left behind” according to agreed criteria), identifying which factors affect

Table 1-3: Examples of commonly used strategies and how they are aligned with 'leaving no one behind'

Topic	Commonly used strategies	Alignment with 'leaving no one behind'	Examples of strategies that aim to 'reach the furthest behind'
Nutrition	<ul style="list-style-type: none"> • Promotion of breastfeeding and nutrition for pregnant/breastfeeding women and adolescent girls • Promotion of complementary feeding with or without provision of food supplements • Micronutrient interventions • General supportive strategies to family and community nutrition • Reduction of disease burden. 	Interventions are usually delivered as universal programmes targeting pregnant and lactating women, adolescent girls, infants and young children.	Nutrition interventions that focus on the furthest behind, such as the therapeutic feeding for children suffering from severe acute malnutrition, are particularly effective when compared with other strategies. However, because stunting is difficult to reverse after 36 months of age, in some contexts, universal programmes before that critical age have been proven more successful than targeted interventions later in life.
Health	<ul style="list-style-type: none"> • Provision of primary health care • Prioritizing interventions at younger ages • Lowering the price of medicines • Diseases specific international action programmes 	<p>Universal health coverage attempts to guarantee comprehensive health coverage for the entire population.</p> <p>The need for efforts to combat "orphan diseases" such as neglected tropical diseases has been on the policy agenda for a long time.</p>	Some programmes of universal care are focused on reaching the furthest behind first. Examples include prioritizing areas with the highest social deprivation when building health centers, obligatory service in underserved areas for health care professionals, or providing specialized insurance schemes for those otherwise excluded.
Conditional cash transfers (CCTs)	<ul style="list-style-type: none"> • Cash transfers given to poor groups of the population on the condition of participation in schooling, natal care, and vaccination schemes 	CCTs are usually provided to poor families, aiming at enhancing the lives of both the parents by alleviating poverty but also increasing the human capital of the children.	Some schemes include unconditional cash transfers to the poorest families, others give additional support to youth that stay in school, tackling drop outs. Schemes can also be designed to target only marginalized groups, e.g. indigenous peoples.
Payments for ecosystem services (PES)	<ul style="list-style-type: none"> • Schemes that compensate people or communities to manage an environmental resource or service according to certain requirements. PES schemes are commonly used in areas related to climate change mitigation, watershed services and biodiversity conservation. 	The primary focus is on maintaining or restoring ecosystem services, not on poverty alleviation. However, schemes can benefit poor community managing ecosystems. Efforts to study the links between link PES and poverty reduction have developed in the past 20 years.	The precise design of the PES influences the distribution of payments across participating and non-participating groups. Hence, PES can be more or less focused on those furthest behind, depending on the case.
Access to shelter	<ul style="list-style-type: none"> • Direct provision of housing units (public sector) • Ownership and rental subsidy programmes • Slum upgrading programmes, including a comprehensive range of basic services in addition to shelter. • Reform of housing finance systems, including primary and secondary mortgage markets and rental markets. • Municipal finance • Urban planning and regulation 	<p>Traditional interventions in housing markets, both through direct provision of housing units and through subsidies, have not often reached the poorest.</p> <p>Traditional housing finance interventions aiming at increasing the depth of housing finance have not reached the poorest.</p> <p>Slums upgrading programmes clearly focus on those left behind, but have not kept pace with the rapid increase in the number of slum dwellers in past decades globally.</p> <p>Homelessness is still an issue in developed and developing countries alike.</p>	<p>The impact of interventions focused on slum dwellers depends on the design and implementation.</p> <p>The introduction of micro-finance for housing was an attempt to reach communities that did not have access to traditional banking services.</p>
Access to drinking water and sanitation	<ul style="list-style-type: none"> • Restoration and protection of water-related ecosystems that underpin the provision of freshwater supplies • Extension of networks to provide universal coverage of drinking water services • Water tariffs and associated subsidies (consumption, direct, connection subsidies) 	<p>Strategies that aim to provide universal access to safe drinking water are directly geared to leaving no one behind. However, extension of networks usually does not reach those furthest behind first. Many countries have met the MDG target relating to drinking water; yet, many still do not have access to an improved drinking water source.</p> <p>Water subsidies have often been found to be regressive; they do not reach those not connected to the network.</p>	In countries where the majority of the population has physical access, strategies to facilitate affordability of water become the main channel to reach those furthest behind. To the extent that those furthest behind live farthest from areas already served, strategies to extend water provisions may not spontaneously reach the furthest behind first. Doing so requires a deliberate prioritization of the most underserved areas and groups.

Table 1-3: (continued)

Topic	Commonly used strategies	Alignment with “leaving no one behind”	Examples of strategies that aim to ‘reach the furthest behind’
Persons with disabilities	<ul style="list-style-type: none"> • Anti-discriminatory laws and regulations • Quotas for persons with disabilities • Incentives for employers (tax credits, support for accommodation or workplace modifications) • Special supported employment, training programmes, and microfinance for self-employment • Increasing accessibility of public spaces 	Strategies aiming towards inclusion of persons with disabilities are by design aiming at leaving no one behind.	Targeted interventions can be used to reach those not otherwise included in broad-based programmes for supporting persons with disabilities. Examples include specialized services for children with disabilities in courts to facilitate access to justice; ensuring that educational materials on HIV/AIDS for youth are made in accessible formats such as videos with sign language; and providing additional unconditional cash-transfers to children with disabilities within conditional cash transfer programmes.
Education	<ul style="list-style-type: none"> • Free access to primary and secondary education • Increasing demand for education through initiatives such as cash transfers, school feeding programmes and take-home rations • Increasing the supply of schools and classrooms, investing in teachers' quality and incentives • Investing in health and infrastructure 	Evidence-based policies and strategies to address exclusion in education include elimination of cost barriers through, for example, cash transfer programmes; provision of school meals/nutrition and health services; learning and teaching materials and transport services; second chance/re-entry programmes; inclusive school facilities; teacher training on inclusive education; and language policies to address exclusion.	Education strategies and policies have encompassed measures aiming to reach groups at a special disadvantage, investing additional resources in school districts located in disadvantaged neighbourhoods. Countries have adopted different strategies to enhance school enrolment of children with disabilities.

Source: Authors' elaboration. For full references, see Annex 1.

the outcomes in each group, and allocating resources in a way that explicitly considers the outcomes of each group.

1.6 Conclusion – considerations for decision-makers

This chapter aimed to provide a reference frame for exploring the implications of the principle of “leaving no one behind” for the operationalization of the SDGs from a science-policy perspective. The chapter provided a limited review of how scientific evidence can inform decision-makers on three critical questions. First, it reviewed some of the concepts and methods used to identify those left behind in practice. Second, it pointed to existing reviews of the effectiveness of development interventions in targeting and reaching those left behind. Finally, it highlighted examples of development strategies used in various areas of sustainable development and what evidence tells us about their effectiveness in leaving no one behind, based on existing scientific reviews.

Many goals and targets across the 17 SDGs explicitly refer to specific objectives and actions that directly relate to leaving no one behind, as well as groups (of countries or people) that should be the object of sustained attention in this regard. In particular, such references are very frequent under goals that were within the scope of the Millennium Development Goals (MDGs), including poverty, gender, education and health, and means of implementation. In

those areas, considerations of inclusiveness in a broad sense have long been part of the main development discourse and practice, and actions and policies to address this dimension have become part of the standard development apparatus. Specific actions are also highlighted under other goals. For some goal areas though, specific measures to ensure that no one is left behind are not always fully specified in the associated targets.

Many criteria can be used to identify those left behind, whether within a country or across countries. In addition to the reference to certain groups (e.g., women, indigenous peoples, persons with disabilities, the youth, and others) and deprivation indicators focused on single areas or sectors, many indices of multiple deprivation exist, which incorporate social, economic and environmental dimensions. For example, multiple deprivation maps based on composite indicators have been used as an instrument of planning and management at different geographical levels, both in developed and developing countries. In practice, those “left behind” with respect to a particular dimension of the Agenda may be different groups in different societies. Further efforts to produce disaggregated data have been underlined as a critical step towards better identifying those left behind.

A variety of targeting methods have been used to reach those left behind. All need underlying data to be implemented, as well as administrative capacity in various institutions.

Available evaluations from different SDG areas all suggest that there are significant practical challenges in effectively reaching those left behind.

The chapter provides examples of strategies commonly used in some SDG areas and the extent to which they have been found to reach those left behind, based on existing literature. In many SDG areas, inclusive development strategies are the commonly accepted paradigm. Examples include drinking water, electricity and other basic services, where ensuring universal access is often an overarching objective. However, whether strategies succeed in reaching those left behind depend on many factors, from country-specific circumstances to their design, targeting methods and practical implementation. Among the examples of interventions explored in this chapter, those that are based on reaching the furthest behind first include: nutrition, where the core target of interventions in developing countries is those suffering the most from stunting; area-based interventions targeting the poorest locations; and strategies to provide shelter for homeless people. Clearly, it would be important to conduct similar investigations for other sectors, including: agriculture, rural development; industry and manufacturing; trade; information and communication technology; infrastructure development; energy; and transport.

Based on the limited evidence reviewed in the report, in many areas of the new Agenda, factoring in the imperative to leave no one behind in sustainable development interventions may not present insurmountable difficulties. Undertaking to systematically reach the furthest behind first may in some cases require a more significant departure from presently used strategies. Achieving success in this area is likely to require attention at three levels. First, better taking into account the interests of those left behind will require assessing the way in which strategies and policies are designed. This in turn may require the incorporation of enhanced understanding of the dynamics of poverty, inequality, marginalization, discrimination and vulnerability in a country- and place-specific context. This should also

involve ways to give more voice to deprived or marginalized groups in policy discussion and decision-making. The institutional dimension is clearly crucial in this, as argued in Chapter 4. Second, there will be a need to review, and possibly update, ways in which strategies are executed, with particular efforts made to reach the furthest behind, addressing gaps in administrative capacity and data to improve the targeting of programmes and addressing other obstacles that prevent progress. Third, at the highest level of decision-making in Government, taking the new Agenda at its word will require a consideration of how social objectives are balanced with other objectives, such as short-term economic efficiency. Ultimately, the priority given to those furthest behind will be reflected in the allocation of resources, both from the public and the private sectors.

Given the overarching importance of the concept of leaving no one behind in the 2030 Agenda, in going forward, it will be critical to systematically collect scientific evidence on how existing development strategies do indeed reach the furthest behind. A first step could be an inventory of existing meta-studies that attempt to review the effectiveness of development interventions in different SDG areas in reaching those left behind. Evaluations in different SDG areas use different criteria for defining and measuring those left behind or furthest behind and for assessing the effectiveness of interventions in reaching them. It could be worth assessing the costs and benefits of investing in more comparable frameworks for evaluating development interventions across the SDGs. This would likely be a significant undertaking in terms of methodology and costs. The reward might be a better grasp across the whole Agenda on how strategies put in place do indeed reach the furthest behind.

Other chapters of the report provide additional insights on aspects introduced in this chapter. Chapter 2 examines the links among resilience, infrastructure and inequality. Chapter 3 reviews technologies for the SDGs, with an emphasis on technologies for those left behind. Chapter 4 discusses inclusive institutions for the SDGs.

Endnotes

- 1 See for example: Taking income inequality reduction seriously: a pass-or-fail test for the Sustainable Development goals, IDDRI issue brief, 6/15, September 2015; Inequality and the 2030 Agenda for sustainable Development, Development Issues 4, Department of Economic and Social Affairs, October 2015.
- 2 In the UN, see for example HLCP, 2015, Equality and non-discrimination at the Heart of sustainable Development: Towards a UN System-wide shared framework for addressing inequalities and discrimination of the 2030 Agenda, HLCP positioning paper, November, CEB/2015/6.
- 3 A/RES/70/1, paragraph 4.
- 4 For references, see e.g. United Nations, 2013, Inequality Matters, Report on the World Social Situation 2013, Department of Economic and Social Affairs, New York; and World Bank, 2013, Inclusion matters: The foundation for shared prosperity, Washington D.C.
- 5 United Nations, 2002, Johannesburg Declaration and Plan of Implementation, New York.
- 6 The Oxford dictionary online defines "inclusiveness" as "(T) he quality of covering or dealing with a range of subjects or areas" or "the quality of including all sections of society". In turn, "inclusive" is defined as "including or covering a broad array of things", as "containing a specified element as part of a whole", as "not excluding any section of society or any party involved in something", and finally, when referring to language, as "deliberately nonsexist, especially avoiding the use of masculine pronouns to refer to both men and women".
- 7 Sen, A., 1999, *Development as Freedom*, New York: Oxford University Press.
- 8 See for example HLCP, 2015, Equality and non-discrimination at the Heart of sustainable Development: Towards a UN System-wide shared framework for addressing inequalities and discrimination of the 2030 Agenda, HLCP positioning paper, November, CEB/2015/6.
- 9 Other research in development and conflict studies differentiates between vertical and horizontal inequalities, showing how inequalities – particularly deep inequalities between ethnic and religious groups – whether in income, access to economic resources, social services, political participation or justice – can threaten social cohesion, radicalize groups and heighten the risk of tensions escalating into political crisis and violent conflict. See e.g. Henk-Jan Brinkman, Larry Attree and Sasa Hezir, 2013, Addressing horizontal inequalities as drivers of conflict in the post-2015 development agenda, mimeo, Frances Stewart https://www.ifw-kiel.de/konfer/2006/preg/stewart_langer.pdf, CEB paper. The concepts of horizontal equity and vertical equity are not specific to the conflict and development field.
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- 13 The 2030 Agenda also contains wording which potentially restricts the promise of 'ensuring that no one is left behind'. E.g. Target 5.4: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family **as nationally appropriate**.
- 14 Intergenerational equity has been a central tenet of sustainable development since the concept was developed, most famously recognized in the Brundtland definition. See Matson, P., W. C. Clark, K. Andersson, 2016, *Pursuing Sustainability: A Guide to the Science and Practice*, Princeton University Press, Princeton.
- 15 The most commonly used definition of poverty counts the number of people living below a certain income threshold. Based on the revised World Bank definition, less than \$1.9 per day (USD PPP) is extreme poverty, less than \$3.1 is moderate poverty. Absolute poverty lines such as those above are often based on estimates of the cost of basic food needs (i.e., the cost a nutritional basket considered minimal for the healthy survival of a typical family), to which a provision is added for non-food needs. Relative benchmarks, on the other hand, reflect the belief that important deprivations are to be judged relative to the well-being of the whole society, approximated by the income level of the household at some point of the income distribution. Many national poverty lines are based on such relative measures.
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- 17 <http://www.oecdbetterlifeindex.org/#/11111111111>.
- 18 <http://www.socialprogressimperative.org/wp-content/uploads/2016/04/2015-Methodology-Report.pdf>.
- 19 See Paes de Barros, R., F. H. Ferreira, J. R. Molinas Vega, and J. Saavedra Chanduvi. 2009. Measuring Inequality of Opportunities in Latin America and the Caribbean. Washington DC: Palgrave MacMillan and The World Bank. The composite index measures how personal circumstances impact a child's probability of accessing key infrastructure services. It is made of two elements: (i) the level of coverage of basic opportunities necessary for human development (such as access to primary education, water and sanitation, or electricity); and (ii) the degree to which the distribution of those opportunities varies across variables such as location (urban versus rural), gender, income, household size, education of household head, and gender of household head.
- 20 E.g. A small fraction of wealthy households in developed countries choose not to have access to television in their homes, even though for a long time, the rate of equipment of households in TV sets was considered as an indicator of "progress".
- 21 For a discussion and references, see Matson, P., W. C. Clark, K. Andersson, 2016, *Pursuing Sustainability: A Guide to the Science and Practice*, Princeton University Press, Princeton.
- 22 E.g., basic indicators such as: being above or below the national poverty line; minimal calorie intake; stunting; no access to safe drinking water and sanitation; access to clean cooking fuel; access to electricity; fall into this category.

- 23 PISA 2012, Results in Focus, What 15-year-olds know and what they can do with what they know, OECD, Paris, 2012, available at: <https://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf>. However, the same study also finds gender gaps in relation to confidence in maths and science. Further, 5 percent of 15-year-old girls in OECD countries contemplate pursuing a career in engineering or computing, while 20 percent of boys do.
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- 27 See the Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, E/CN.3/2016/2/Rev.1, Available here: <http://unstats.un.org/unsd/statcom/47th-session/documents/2016-2-SDGs-Rev1-E.pdf>.
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