

Article

UK data gaps: Inclusive Data Action Plan towards the global Sustainable Development Goal indicators

This is our first report on UK data gaps for reporting progress towards the global Sustainable Development Goal indicators.

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1 . Foreword

The UK is fully committed to delivering the Sustainable Development Goals (SDGs) and to ensure no one is left behind. Besides working on domestic delivery, we are also working to help other countries to deliver the SDGs. For the first time, developed and developing countries are working towards the same set of goals, targets and indicators.

In the UK we have pledged to ensure that:

- every person has a fair opportunity in life no matter who or where they are
- people who are furthest behind, who have least opportunity and who are the most excluded will be prioritised
- every person counts and will be counted

Yet too often it is the poorest people who are the most invisible and that is why we need much better data. We need to know who these people are, where they live and how old they are and what are their circumstances. This information is essential to identify which policies can help them the most.

We know the challenge is immense. This report highlights the challenges we face within the UK where much of the disaggregated data we need to ensure no one is left behind is not yet available. Globally we do not have sufficient data for two-thirds of the SDG indicators and even where data are available it is rarely disaggregated by age, sex, ethnicity, disability status or geography. If this is a challenge for the UK, then this challenge is magnified many times in developing countries which often have less developed statistical systems and can struggle to collect even the most basic data on their populations.

To meet this challenge we need to work together with governments, citizens, civil society and businesses across the globe. I am encouraged by the collaboration we have already started between the Department for International Development (DFID) and Office for National Statistics (ONS) where we are working together in Ghana, Kenya and Rwanda to help them to measure and achieve the SDGs.

Data matters. Without the right data, those people who are furthest behind are in danger of being invisible. Their needs and concerns will not be reflected in policies. We must fill these data gaps and ensure that “every person counts and will be counted”.

Neil Jackson, Chief Statistician, Department for International Development

2 . Main points

This is the Office for National Statistics’ (ONS) first report on UK data gaps towards the 244 global Sustainable Development Goal (SDG) Indicators.

We currently report headline data for 114 global SDG indicators on our [National Reporting Platform](#) (NRP). We are still exploring data sources for 86 indicators, and 10 indicators are considered genuine data gaps, meaning there are no known data sources that will fill these gaps.

Goal 11 (Sustainable Cities and Communities) and Goal 15 (Life on Land) contain the most headline data gaps for the UK. (See Section 4 for more details)

Conversely Goal 3 (Good Health and Well-being) and Goal 7 (Affordable and Clean Energy) are most comprehensively reported on and contain few data gaps. (See Section 4 for more details)

All indicators, where relevant, should be disaggregated by eight characteristics stipulated by the United Nations. Reporting geography at the lowest levels possible was highlighted as a priority in our recent [consultation](#). For the 114 global SDG indicators that we are reporting data for, migratory status and disability have the biggest data disaggregation gaps.

In recognition of the Leave No One Behind (LNOB) commitment we are working with partners (under the Global Partnership for Sustainable Development Data) to develop a new global Inclusive Data Charter; which aims to accelerate efforts to gather information about those most disadvantaged in our societies by the disaggregation of data.

3 . Introduction

Leave No One Behind

The Leave No One Behind (LNOB) commitment is the core thread of the 2030 Agenda for Sustainable Development. It recognises that “the dignity of the individual is fundamental and that the Agenda’s Goals and targets should be met for all nations and people and for all segments of society”¹.

One of the ways to realise this commitment – and track progress for everyone, is through the requirement that all global Sustainable Development Goal (SDG) 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 UN Fundamental Principles of Official Statistics²”.

In recognition of this commitment we have pledged to make our data more inclusive. We are supporting global efforts by working to develop a new global Inclusive Data Charter together with the Global Partnership for Sustainable Development Data (GPSDD) and their partners. The Inclusive Data Charter is expected to be launched at the High Level Political Forum at the United Nations in July 2018. This multi-stakeholder collaboration is expected to reinforce the LNOB commitment and the need to build data disaggregation into country statistical systems.

This is our first report on data gaps and it sets out the UK’s:

- data gaps towards global SDG indicators – at a headline level and, for reported data, disaggregation gaps
- Inclusive Data Action Plan for developing new data sources and methods to enable us to increase our data coverage
- plans for prioritising filling data gaps, and associated challenges and opportunities
- intentions to continue working with users to inform our priorities and development plans

This is our practical starting point for developing data sources and methods to fulfil the commitments and ambitions set out in the SDGs outcome document, [‘Transforming our world: the 2030 Agenda for Sustainable Development’](#).

Background

The Sustainable Development Goals (SDGs) are a universal call to action to [end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030](#), also referred to as 2030 Agenda. They are a set of 17 ambitious goals supported by 169 targets agreed at the United Nations' Sustainable Development World Summit in September 2015, and are the result of over two years of extensive consultation. The 169 targets are supported by 244 global SDG indicators.

It is our responsibility to report on UK progress towards the 244 global SDG indicators³. In November 2017 we published our first report, entitled [Sustainable Development Goals: Progress and Possibilities](#). This report looked at the work we have been doing to be able to measure our progress and explains how we are already sharing the data we have. ONS currently reports data for 47% of the global indicators on our [National Reporting Platform](#) (NRP).

We work in close collaboration with the Department for International Development (DFID) who have policy leadership for SDGs in the UK. Where possible, we work with DFID's strategic partner countries to support capacity development and share knowledge and experience.

Endorsements

We would like to take this opportunity to thank those mentioned below for directly contributing to this report and our Inclusive Data Action Plan for the global Sustainable Development Goal Indicators. However, the views of many more users have been incorporated, where relevant, through our broader engagements and other activities.



Notes for: Introduction

1. [UN The Sustainable Development Goals Report 2016](#)
2. For more information, see paragraph 26 of the [Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators](#) (PDF 930.06KB), published February 2016
3. The total number of indicators is 244. However, because nine indicators repeat under two or three different targets the actual total number of individual indicators in the list is 232.

4 . Assessment of UK data for Sustainable Development Goals indicators

Data for 114 indicators (47%) are reported on our [National Reporting Platform](#) (NRP); of which 81 indicators report data for the UK. However, 39 indicators, of the 114 reported, use proxy data sources. 130¹ indicators (53%) remain unreported on our NRP. Our preliminary analyses of these unreported indicators show that:

- 10 indicators (8% of unreported indicators) are considered genuine data gaps, that is there are no known data sources that will fill these gaps; these data gaps are included in our Inclusive Data Action Plan (Section 6)
- 34 indicators (26% of unreported indicators) are non-statistical indicators; non-statistical indicators refer to a need for policy implementation and require input from relevant policy areas, rather than quantitative data measuring progress
- 86 indicators (66% of unreported indicators) have no data reported on our NRP, but we believe there are existing data sources available, suitable data proxies, developments in progress or that the indicators do not require measurement; again, these data gaps are included in our Inclusive Data Action Plan (Section 6)

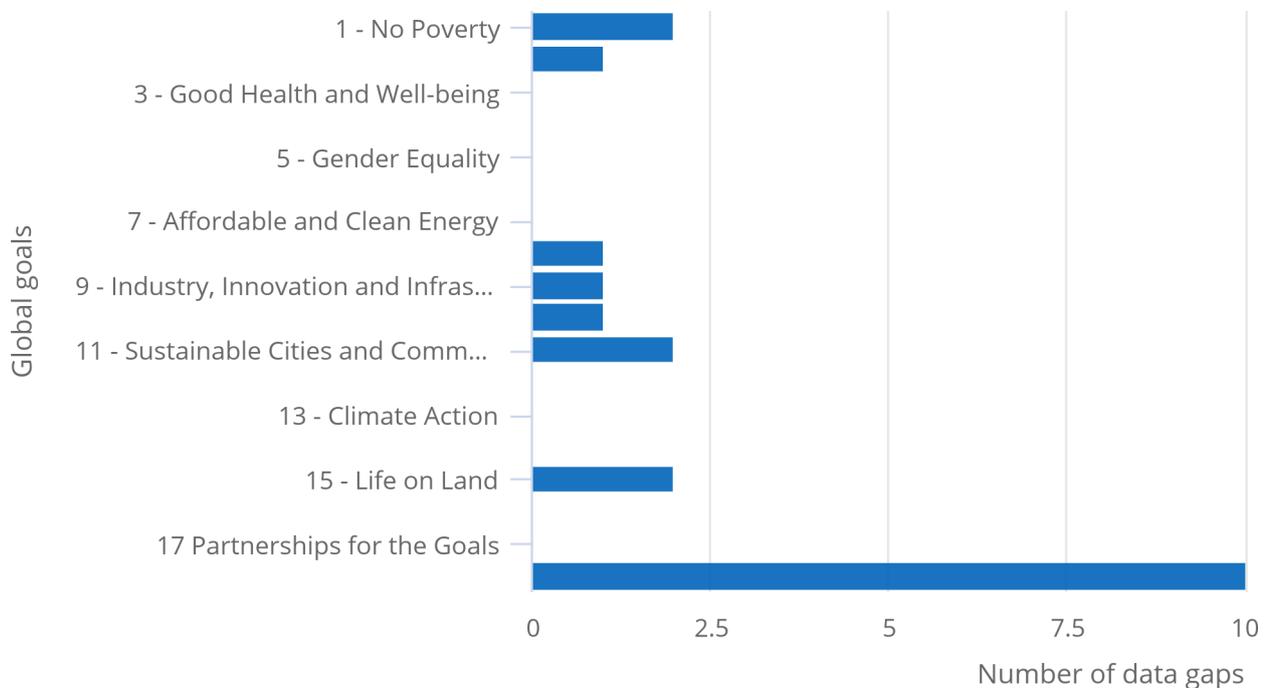
As we continue to assess our data gaps and the data we have published on our NRP, our analysis of how these indicators are classified will change, for example, where we believe existing data already exists but it cannot be fully disaggregated, then it will become a disaggregation gap.

Headline data gaps

Headline data gaps are not equally spread across the 17 global goals. Figure 1 shows the distribution of data gaps across the 17 global goals and provides an insight into where future data developments are needed.

Figure 1: Headline data gaps for global Sustainable Development Goal (SDG) indicators

Figure 1: Headline data gaps for global Sustainable Development Goal (SDG) indicators



Source: Office for National Statistics, March 2018

Notes:

1. As we continue to assess our data gaps and the data we have published on our National Reporting Platform, our analysis of how these indicators are classified (for example, as a data gap, non-statistical indicator or unreported but with data available, or published) will change to reflect our findings.
2. More information on all data gap can be found in the accompanying datasets.

The 10 indicators that we consider to be data gaps occur most prevalently in the following three goals.

Goal 11 (Sustainable Cities and Communities) has two headline data gaps. We are working with experts in geography to determine if geospatial analysis or earth observation can be used to develop data. As an example, indicator 11.7.1: Average share of built-up area of cities that is open space for public use for all.

Goal 15 (Life on Land) has two headline data gaps. We are already working with experts in natural capital, geography and across the Government Statistical Service to identify new techniques and methods to help us build statistical capacity in this area.

Goal 1 (No Poverty) has two headline data gaps. These data gaps will be addressed in future developments plans.

SDG indicators with good headline data coverage

The following global goals have good data coverage at a headline level. This can be attributed to our well-established national statistical systems for collection and reporting data in the UK.

Goal 3 (Good Health and Well-being) has the best data coverage, with no reported data gaps. However five of the 27 indicators reported for this goal contain proxy data, meaning the data used do not fully comply with the methodology and definitions set out by the United Nations.

Goal 7 (Affordable and Clean Energy) has good data coverage, with only one indicator currently unreported (7.b.1: Investments in energy efficiency as a proportion of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services).

Goal 4 (Quality Education) has no headline data gaps. However, six of the eight indicators reported for this goal contain proxy data. However, there are a specific set of challenges around devolution and reporting data for the UK (see Devolved Administrations section below).

More information on headline data gap and data coverage can be found in the accompanying datasets.

Disaggregation gaps

We have assessed data coverage for the 114 global SDG indicators reported on our National Reporting Platform against six disaggregations specified by the United Nations – geography is reported separately below. Statistics on race are not regularly collected in the UK, but further assessment is required before we can report on this characteristic.

Table 1: Headline data broken down by six disaggregations

Goal	Number of indicators for the goal	Number of indicators for which we have data	Number of disaggregation gaps for reported indicators:						
			Sex	Age	Ethnicity	Disability status	Income	Migratory status	
1	14	5	1	1	3	4	3	3	
2	13	6	1	2	2	3	1	2	
3	27	20	6	5	12	19	11	17	
4	11	8	1	3	5	4	5	6	
5	14	9	0	4	6	7	6	8	
6	11	4	N/A	N/A	N/A	N/A	N/A	N/A	
7	6	5	2	2	2	2	2	2	
8	17	13	2	2	6	6	6	6	
9	12	9	0	2	2	2	2	2	
10	11	4	2	2	3	3	3	3	
11	15	6	2	3	3	3	3	4	
12	13	2	N/A	N/A	N/A	N/A	N/A	N/A	
13	8	1	0	1	1	1	1	1	
14	10	2	N/A	N/A	N/A	N/A	N/A	N/A	
15	14	7	1	1	1	1	1	1	
16	23	8	1	2	7	7	6	7	
17	25	5	1	1	1	1	2	2	
Total	244	114	20	31	54	63	52	64	

Source: Office for National Statistics, March 2018

Notes:

1. As we continue to assess our data gaps and the data we have published on our National Reporting Platform, our analysis of how these indicators are classified will change to reflect our findings.
2. Those classified as N/A have been assessed as not requiring disaggregation by these characteristics.
3. Statistics on race are not regularly collected in the UK, but further assessment is required before we can report on this characteristic.

With our commitment to the Leave No One Behind (LNOB) initiative we aspire to provide disaggregated data for all UK data sources, where relevant.

Of the 114 indicators we are reporting data for, 92 indicators (81%) are considered to have disaggregation gaps. When we assessed these disaggregation gaps by theme, we found out the following.

66 indicators (72%) are missing data on migratory status, which includes indicator 8.8.1 (frequency rates of fatal and non-fatal occupational injuries by sex and migration status) which specifically stipulates that data need to be disaggregated by migratory status. To date we have only provided disaggregation by migratory status for 5 indicators. Migratory status is not a relevant disaggregation for the other 43 indicators.

- 64 indicators (70%) lack disaggregation by disability.
- 56 indicators (61%) lack disaggregation by income.
- 55 indicators (60%) lack disaggregation by ethnicity.
- 33 indicators (36%) lack disaggregation by age.
- 22 indicators (24%) lack disaggregation by sex.

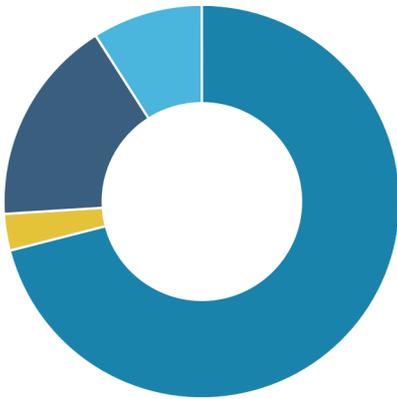
In most of these areas we are already working with experts to improve data coverage. We are also committed to working with other data producers and data scientists to create an environment where data disaggregation becomes the norm. Together with the experts within the ONS (see Section 5) we will strive to ensure that everyone in our society is counted and included in our statistics, so that no one is left behind.

Focus on geographical data gaps

We held an open [consultation](#) last summer to gain feedback on our approach to the Sustainable Development Goals (SDGs). When it came to data disaggregation users responded that we should pay special attention to geographic breakdowns. Therefore, where possible, it is our ambition to go down to small area statistical geographies, the Output Area hierarchy, as well as breaking down by geographic classifications such as rural or urban or the local authority classification. For this reason, we have focused on geographic coverage in this report; but other characteristics will be focused on in future.

Figure 2a: Geographical coverage for reported indicators

Figure 2a: Geographical coverage for reported indicators



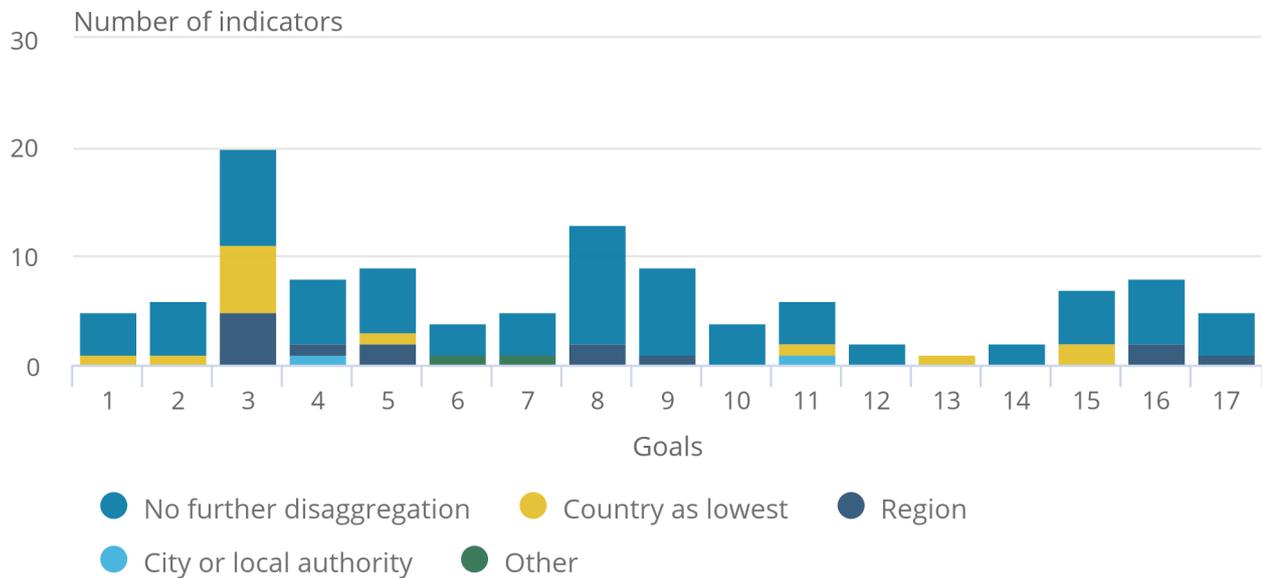
Source: Office for National Statistics, March 2018

Notes:

1. As we continue to assess our data gaps and the data we have published on our National Reporting Platform, our analysis of how these indicators are classified will change to reflect our findings.

Figure 2b: Geographical disaggregations for reported indicators

Figure 2b: Geographical disaggregations for reported indicators



Source: Office for National Statistics, March 2018

Notes:

1. As we continue to assess our data gaps and the data we have published on our National Reporting Platform, our analysis of how these indicators are classified will change to reflect our findings.

For data we have reported on our [National Reporting Platform](#) (NRP), geographical data coverage differs indicator by indicator. However, for the 114 SDG indicators where we are reporting data:

- 81 indicators (71%) have UK coverage (England, Wales, Scotland and Northern Ireland)
- 19 indicators (17%) only have coverage for England and Wales
- 10 indicators (9%) only have coverage for England
- 4 indicators (4%) only have Great Britain coverage (England, Wales and Scotland)

When looking at the same 114 SDG indicators by geographic disaggregation, we found that:

- 83 indicators (73%) have no further geographic breakdowns; this means data are not able to be broken down further due to inadequate sample sizes, disclosure controls, or because the raw data have not been fully assessed
- 12 indicators (11%) cover the UK. The lowest geographic level we can publish to is by country
- 15 indicators (13%) have been disaggregated by regional level, of which two can be broken down by health-board level for Wales
- two indicators (2%) have been disaggregated by city or local authority level
- Only one indicator currently provides a distinction between urban and rural

Most of the disaggregation gaps for geography relate to indicators which need very specific data, which cannot be produced to the required level of granularity. For example, the statistics on a headline level might rely on a small number of observations (for example, see indicator 5.3.1: Number of women aged 20 to 24 per 1,000 who had ever married by age 17 and by age 18), or if based on a survey do not allow us to go down to a lower geographical level because the estimates become unreliable or disclosive. We will investigate options, such as modelling, for filling disaggregation gaps where existing survey data are not sufficient or robust.

We are already commissioning work with experts in this area to understand what techniques and new data sources (such as earth observation and geospatial data) can help us build our capabilities at local and regional levels.

However, we are also committed to producing and reporting data at the lowest geographical levels possible, in line with user needs. As a result geographic data coverage is a priority for our data developments over the next year.

Devolved administrations

As we are responsible for reporting progress towards the global SDG Indicators for the UK, any data sources that do not provide full geographic coverage are classified as having geography data gaps.

Reporting data for the whole of the UK can be challenging – as data are often not collected consistently across the four countries which means that the way devolved administrations (Wales, Scotland and Northern Ireland) measure things like health and education might differ to how data are collected by UK Government for England.

Notes for: Assessment of UK data for Sustainable Development Goals indicators

1. All numbers in this publication are correct on 14 March 2018.

5 . How are we working to fill data gaps?

We work in close collaboration with the Department for International Development (DFID) who have policy leadership for Sustainable Development Goals (SDGs) in the UK and the Cabinet Office who are co-ordinating domestic implementation across departments to ensure our plans and developments are aligned, where relevant, to their strategic oversight.

We have a dedicated team responsible for working with experts to develop new data sources and methods to allow us to report UK progress towards the global SDG Indicators. We will work with experts from government and beyond (such as charities, academia, business and international organisations etc) to identify new opportunities to collaborate and escalate UK efforts to fill data gaps and fulfil the Leave No One Behind (LNOB) commitment.

Our three-staged approach up to April 2020 (below) will afford us the opportunity to: better understand the challenges for UK data gaps; engage users to understand their priorities and needs; and consider the data needs across policy departments to ensure we get maximum benefit and use of these new developments. These developments align to our operational delivery roadmap and strategic priorities for informing public and policy debate.

Stage 1

By the end of April 2018, we aim to commission data developments within ONS that not only support Government Statistical Service (GSS) strategic priorities, but also align to feedback we have received from users.

Stage 2

By the end of April 2019, we will expand our development portfolio by commissioning new developments across the GSS; and through the use of data science techniques and innovations. These developments will include: feasibility works; development of new methods; modelling existing datasets; and creating new data sources to fill data gaps; at headline level and by priority disaggregation.

Stage 3

By the end of April 2020, we have set ourselves a goal of reporting against 75% of the SDG Indicators, and filling 50% of disaggregations for the eight characteristics stipulated by the United Nations.

ONS inequalities data audit

ONS has recently undertaken an audit of sources across government and more widely which include data on the nine protected characteristics of the Equality Act 2010¹. This audit is intended to provide a more coherent picture of inequalities data and evidence for these groups and will be highlighting where there are gaps for particular characteristics and sections of the population, and also in terms of the granularity of the data coverage (topics, geography, and so on) and its timeliness. We are aiming to start publishing the outcomes of this audit in April.

We are working closely to ensure that data and evidence relating to the protected characteristics that align to SDG disaggregations, such as age, disability, race and sex are jointly developed so that new data sources and methods can benefit both work programmes and escalate efforts for disadvantaged or discriminated groups.

Global partnerships

Where possible we will work with the Department for International Development's (DFID) strategic partner countries, including Ghana, Kenya and Rwanda, to support capacity building and share knowledge.

To accelerate these efforts globally, we have made a commitment to work and support the development of a new global Inclusive Data Charter Task Team – under the Global Partnership for Sustainable Development Data (GPSDD). As part of this commitment countries will be asked to publish their Inclusive Data Action Plans, to help:

- mobilise political support for data disaggregation and to accelerate progress
- stimulate a peer effect across countries and organisations by sharing existing learning
- demonstrate at a country level how this work is being done - even in challenging contexts
- accelerate the pace of efforts to improve data availability and analysis, enabling the SDG promise to Leave No One Behind

DFID is also developing a separate Inclusive Data Action Plan to reflect their SDG data work with developing countries.

Notes for: How are we working to fill data gaps?

1. Protected characteristics are defined as: age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage and civil partnership, and pregnancy and maternity.

6 . UK Inclusive Data Action Plan for the 2030 Agenda

Table 2 is a high-level summary of our current portfolio of data developments which are supporting our efforts to fill data gaps and work towards the Leave No One Behind commitment by ensuring data can be disaggregated by the eight characteristics specified by the United Nations.

Table 2: Inclusive Data Action Plan: Data developments that will support filling UK data gaps for the global Sustainable Development Goals indicators

Development	Purpose	Key milestones for Stage 2	Linked to SDG Indicator (s)
ONS Titchfield City group on Ageing and age-disaggregated data	To deliver a global standardised tool and method for creating data disaggregated by age and other ageing related data. This group will play a leading role in the development and communication of new standards and methodologies in this field of work, and will contribute to SDG data disaggregation.	The City Group has been endorsed by the United Nations (UN) Statistical Commission in March 2018. Further milestones and timelines to be agreed.	Disaggregation by age relates to most SDG indicators.
ONS Geography	A key priority for our users is disaggregation by geographic levels; which is also one of the eight disaggregations stipulated by the United Nations. We are collaborating with geography experts to develop new data sources or methods to allow us to fill geographic data gaps – using earth observation, satellite imagery and geospatial data.	Provide data by March 2019 Future milestones to be agreed.	While geography relates to most indicators, we will be starting with: 3.5.2, 6.6.1, 8.10.1 (a & b), 9.1.1 and 11.7.1
ONS Migration	Migratory status is one of the eight disaggregations stipulated by the UN. The SDG team will work with the ONS Migration Statistics team who are looking to develop alternative data sources to improve the evidence base for international migration. This work is part of an ambitious programme, across the UK Government Statistical Service (GSS), looking to improving international migration data, particularly around the impact of international migration on society and the economy, at national and local levels. These developments will assist in the disaggregation of some of the SDGs.	Data delivery to begin by March 2019.	Migratory status is specifically mentioned in indicators 8.8.1, 8.8.2, 10.7 and 10.c.1
ONS Natural Capital	In cooperation with the Department for Environment, Food and Rural Affairs (Defra), we are developing Natural capital accounts, which will inform some of the SDG indicators. Natural assets provide a wide range of ecosystem services that make human life possible: the food we eat, the water we drink and less visible services such as climate regulation and the inspiration we take from wildlife and the natural environment.	We are following our 2020 Roadmap, which sets out our plans to develop the accounts. Many of the most valuable services provided by natural capital are intangible and so can easily be overlooked when making policy decisions.	Natural Capital links to many of the targets.
	Together with Defra we have been developing methods to value these services, aiming to highlight the relative importance of services provided by the UK's natural assets. Natural capital accounts offer a consistent way of looking at the significance of nature and can help identify drivers of ecosystem change. The development of monetary valuation allows economic and environmental data to be presented in a consistent unit, raising awareness of the economic and social significance of natural capital.		

ONS Data Science Campus	The Data Science Campus' (the Campus) remit is to explore innovative new data sources, new tools and new technologies, to inform our understanding of the UK economy, people and society. It carries out short (six months or less) prototyping projects. The Campus is supporting the UK's work on SDGs by exploring the potential of new data sources and techniques to fill the data gaps in the SDG indicators, where more traditional approaches or data sources are not available.	Discovery work will begin in spring 2018. Delivery expected by end March 2019.	While the Campus will support many of the SDG data developments, we have decided to start with these as they align to current priorities: 1.3.1, 2.4.1 and 1.1.1
ONS Data as a Service	This team is responsible for the acquisition of all data into ONS – from government and beyond. They will be doing some initial work around: - data linking to support our need to fill data gaps such as, for disaggregation by disability and housing quality - food insecurity and the possibility of using both official and non-official data to help us report on this better for SDG indicators	Discovery work will begin in spring 2018. Delivery expected by end March 2019.	1.3.1, 2.1.2 and 11.1.1 While DaaS will be involved in many of the SDG gap development, these are where we have decided to start as they align to current priorities
Strategic priorities for the Government Statistical Service (GSS)	We contacted government departments to find out what areas future gaps work should prioritise in order to align with strategic priorities. Aside from other projects (above) there were four indicators regarding education that were flagged as needing some development for international methods and standards.	To be determined.	4.1.1., 4.2.1., 4.5.1 and 4.7.1
Welsh Government, Housing Stock Analytical Resource for Wales (HSAR)	Data developments to fill data gaps in Housing Conditions evidence. Priority areas to supplement in the Welsh Housing Conditions Survey and enhance the HSAR are: - basic property characteristics (dwelling size, type, construction type and age) household characteristics (household structure, equalities characteristics, occupant status and income) - energy use characteristics (energy efficiency installations, non-grid fuels, households in fuel poverty)state of repair and hazards - disabled access	July 2019	1.3.1 and 11.1.1

7 . Prioritising data gap developments

We are responsible for working with all users, including topic experts to develop new data sources and methods that can be used to report UK progress towards the global Sustainable Development Goal (SDG) indicators. While all global goals, targets and indicators are to be treated with equal importance – we must start somewhere!

So far we have prioritised the collection of data at a headline level, from within government and international agencies reporting to the United Nations. We have then applied the following criteria to the prioritisation of data developments and the ability to meet the following requirements:

- do developments inform, or align to, strategic and policy priorities for government departments?
- are developments considered a priority to our users?
- is there scope to inform statistical capacity building?
- for tier 3 indicators (those indicators without agreed methodologies and standards), is there scope to engage internationally on the development of new methods, standards or classifications?
- will the development provide new data for the 8 disaggregations stipulated by the United Nations?
- is the new development considered sustainable, that is, will production of this measure continue for the duration of the 2030 Agenda?
- is the financial cost of the development proportionate to the anticipated outcomes?

8 . Challenges and opportunities

We work closely with the Department for International Development (DFID) to ensure that our data developments and plans are shared with other statistical producers and the United Nations, to aid international capacity development and promote knowledge exchange.

Classification and harmonisation – methods and definitions

While the Sustainable Development Goals (SDGs) are a global agenda, the methods we use in the UK do not always align with the methods suggested for the global indicators. For some indicators, there are no universally agreed methods at all.

The same is true of definitions, for example, what constitutes “basic services” (indicator 1.4.1: Proportion of population living in households with access to basic services) is likely to be interpreted differently depending on who is collecting, reporting and using the data. This is further complicated by the lack of consistent definitions in national statistical systems. To tackle this we will:

- work with experts who are developing definitions and classification for the 2021 Census around income, sex, gender, disability and so on; this harmonisation work will allow us to collect and use data that uses harmonised definitions, so we can make comparisons and better communicate these statistics to users
- publish a series of “explainer” articles that look to explain terms and concepts that are important to SDGs, such as sex and gender, ethnicity and race, and disability

Data collection, quality and dissemination

Where there are new opportunities there are always a set of interesting challenges, from which disaggregated data are not exempt. Some of these challenges are outlined below, although this is not an exhaustive list:

- surveys are administered across government and by non-official data producers, often using different classifications and definitions; therefore, data across surveys are not always comparable
- when data are disaggregated to lower levels, they can become less robust and potentially more disclosive
- existing survey data might not always be able to provide the information that we need at the levels required, or might only be able to provide it at a country rather than a UK headline level
- creating new surveys or adding questions to existing surveys to gain more information regarding new indicators can be expensive and burdensome
- administrative data might provide us with more granularities, but as it was not collected for statistical purposes in the first instance its quality will vary and it might not comply with statistical definitions or the concepts we are trying to measure

Also, data are not routinely disaggregated across all eight categories. If we want to monitor our progress towards a more equal and fair society, it is important that we create a data system where this does happen, both nationally and internationally.

How we will realise opportunities

The latest [United Nations progress report](#) finds that the “pace of progress must accelerate to achieve the Sustainable Development Goals”. We are well placed to do this as an organisation and a community that wants to realise the aspiration of the SDGs by 2030.

A year ago we opened our Data Science Campus which “will innovate with new methods and data sources providing opportunities to improve existing statistics and develop new outputs by working across government, industry, academia and charities in the UK and internationally... the Campus will also be central to building data science capability across the UK. Through these actions, the Campus will help us realise our vision of better statistics for better decisions.” John Pullinger, UK National Statistician.

As well as working with the Data Science Campus we will be collaborating with our data linkage experts who are developing IDEAS (Integrated Data Enabling Analysis and Statistics); which is a data model that will enable easier and more timely data integration. It means holding de-identified (that is anonymised) datasets in such a way that they can be consistently and coherently joined together for a range of different applications without becoming a large dataset of everything. This will allow us to produce coherent and reliable statistical information within less time, using less resource.

Other innovations and techniques we are investigating include: earth observation and satellite imagery; web scraping; machine learning; and geospatial data that could save money and survey burden.

Digital Economy Act – legislation that is supporting the Leave No One Behind commitment

The Digital Economy Act represents a unique opportunity to deliver the transformation of UK statistics. The existing legal framework governing access to data for official statistics is complex and time consuming.

The Act gives us powers to make use of data already held across government and beyond. This would deliver better access to administrative data for the purposes of statistics and research, delivering significant efficiencies and savings for individuals, households and businesses. Decision makers need accurate and timely data to make informed decisions, in particular about the allocation of public resource. This Act will deliver better statistics and statistical research to help Britain make better decisions.

9 . User-driven data developments

[The 2030 Agenda outcome document](#) was adopted by the United National General Assembly in 2015 as the plan of action for the global Sustainable Development Goals (SDG) agenda. It states that “all countries and all stakeholders, acting in collaborative partnership, will implement this plan”. We are committed to realising this statement and it is at the heart of everything we do.

There is more demand for evidence in our society than ever before and there are more opportunities for collecting new data, producing new analysis and publishing new insights and statistics. For this reason we will continue to work with those that will use our statistics, to ensure that developments meet their needs and requirements and are as useful as possible.

Why is user engagement important to us?

It is important for us to work with users so that we understand the broad range of user needs and how they plan to use our statistics. User engagement is at the centre of work and the 2030 Agenda and is important for shaping and informing our developments.

User engagement is a collective mission of the UK official statistics system, so that we produce “high quality statistics, analysis and advice to help Britain make better decisions.”¹

Who are our users?

The following are groups that we want to work with to shape our data developments and action plans. These groups represent users that have expertise in areas needing development and who are likely to use our statistics to make decisions and hold those in positions of power to account:

- policy makers: Including the Department for International Development, who holds responsibility for the 2030 Agenda in the UK, other government departments and Parliamentary select committees.
- non-governmental organisations: Charities, businesses and voluntary groups, particularly those that represent protected groups at a local, national or international level; these groups often collect or hold data that can be used for official monitoring and reporting purposes.
- international organisations: United Nations, its sub-groups and agencies at an international, national and local level, as well as the custodian agencies² of the global SDG indicators.

How are these users informing our data developments?

To date, our engagements and priorities very much reflect the views of our users and the ethos of the 2030 Agenda, by focusing on the needs of the poorest and most vulnerable in our society. As our short-term plans show (see Section 6) some of our current developments are around distributions such as age, migration, geographic location, disability and sex.

Some of our recent activities with these users include the following.

Working with policy departments to understand whether any Sustainable Development Goals Indicator gaps align to their policy or strategic priorities or whether any of these departments are undertaking development work that could support these gaps in future.

Holding a public consultation last summer, asking for feedback on our approach to reporting and prioritising data developments for the SDGs. We published the outcomes from this consultation [here](#). Among other things, the consultation asked questions regarding the way in which data gaps should be prioritised. Those who participated answered that new data developments should take into account user engagement, capacity building, and that the work should align with wider UK initiatives and priorities. It was also said that we should explore linkages between topics and indicators, incorporate more qualitative data ³ and survey harmonisation⁴.

Going forward, we intend to invite relevant users to our data development exploration (HACK) days, where we will agree the scope and priorities for specific indicator developments.

Notes for: User-driven data developments

1. UK Statistics Authority (2014) [Better Statistics, Better Decisions](#), Strategy for UK Statistics, 2015-2020, October 2014.
2. Custodian agencies are United Nations bodies (and in some cases, other international organizations) responsible for compiling and verifying country data and metadata, and for submitting the data, along with regional and global aggregates, to the United Nations Statistics Division.
3. Qualitative data is data that cannot be expressed as a number, and often include thoughts, sentiments or opinions.
4. Survey harmonisation aims to standardise statistical inputs and outputs, making it easier for users to draw clearer and more robust comparisons between data sources.

10 . UK National Reporting Platform

We have developed an open source [National Reporting Platform \(NRP\)](#) to present the UK's progress towards the global Sustainable Development Goal (SDG) indicators. Our tool was initially based on the open source reporting platform developed by the United States (US), but we have introduced new features including the ability to display disaggregated data for indicators. Our tool remains a work in progress and we continue to collaborate with the US to deliver further improvements. Both countries are also working with their international development teams to share experiences globally.

Adopting an open source reporting platform has offered a number of benefits. For example, other countries wishing to reuse it are welcome to do so for free. An open source solution also offers much greater flexibility to develop and adapt something which will remain sustainable in the longer term. Key features of our reporting platform include:

- disaggregated data and graphs for each indicator for which data are available;
- links to SDG-related reports and publications;
- [wiki-guidance](#) to help users make use of the open source code and reuse the platform; and
- a “reporting status” tab allowing users to see the percentage of indicators with statistics that are being reported online, statistics that are in progress, and statistics that are currently being explored for each goal.

Data on the tool are available in open format and can be downloaded as .CSV files. The data are consistently structured in a machine-readable “long” (also known as “tidy”) format. We have published [guidance on how the raw data is structured](#) within the tool's wiki pages.

We publish metadata alongside our SDGs data to ensure transparency and traceability. This includes information about data sources and how indicators have been calculated.

In the future we are planning to explore use of Application Programming Interfaces (APIs) to automate data acquisition processes and use of Statistical Data and Metadata Exchange (SDMX) to pass UK data to the United Nations and other international organisations.

11 . Conclusion

Through our data development work, we hope to be a leading example on open access data and data disaggregation for the 2030 Agenda. In this way we aim to contribute both nationally and internationally to improved methods for Tier 3 indicators (those indicators without agreed methodologies and standards), and better data that reflect all in our society at both the national and local levels.

Currently, 53% of the indicators remain unreported on our platform, of which we believe 5% to be a headline data gap. We are working with many experts from the Data Science Campus, Geospatial and Natural Capital to develop new data sources or methods so we can fill these data gaps.

In addition, disaggregation data gaps are present for almost all indicators with most indicators missing data on migration status and disability. We are working with experts within the ONS towards data developments on ageing, migration and inequalities so that we will be able to provide the right disaggregations for these indicators.

Not all of our indicators are currently able to cover all of the UK, and very few indicators are able to zoom in to a local level. We are investing in geospatial data developments so that we will be able to provide more granular and local data in the future.

We plan to publish our next Sustainable Development Goals report later this year. This report will provide an update for our entire work programme – from data acquisitions and gaps, latest developments on our National Reporting Platform and plans for future analysis using these data.

As our team grows, we aim to meet and collaborate with new and existing users to get further feedback on our approach.

If you have any questions, comments or feedback based on this report please get in touch with us via sustainabledevelopment@ons.gov.uk.

12 . Annex A: Things you need to know...

Indicator tiers

The total number of global Sustainable Development Goal (SDG) indicators is 244. However, because nine indicators repeat under two or three different targets, the actual total number of individual indicators is 232.

SDG indicators will be used by the United Nations (UN) for global monitoring and reporting purposes. The UN Inter-Agency Expert Group on SDGs developed these indicators, in collaboration with other statistical institutes and custodian agencies. They have been divided into three tiers, based on the availability of methodologies and standards, as well as the availability of data at a global level. They are classified as ¹:

Tier 1

Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by countries for at least 50% of countries and of the population in every region where the indicator is relevant.

Tier 2

Indicator is conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries.

Tier 3

No internationally established methodology or standards are yet available for the indicator, but methodology or standards are being (or will be) developed or tested.

Proxy

Proxy data is data that does not fully comply with the methodologies and standards set out by the UN, but provide a good alternative for UK data for this indicator, and in some cases more relevant for the UK context.

Missing Data

Not all indicators are currently being reported against on our National Reporting Platform (NRP); however, we believe that for some of these indicators data are available. The indicators for which we think data might be available are classified as “missing data”.

Data Gap

Indicators that are currently not being reported against on our tool, and we believe there is no data available for these indicators.

Notes for: Annex A: Things you need to know...

1. United Nations (2017) [Tier Classification for Global SDG Indicators, IAEG-SDGs](#), December, 2017