

National wellbeing indicators 2021-22

This document provides links to where further information can be found in relation to the quality of the data used in the National Indicators published in the Well-being of Wales report. The links provide details such as coverage, and strength and limitations of the data, and also the processes used to produce and publish the datasets behind the indicators.

As the data for the indicators have been sourced from a variety of datasets the level of quality information available will differ in each case. For indicators that are taken from data designated by the Office for Statistics Regulation as National Statistics, quality reports will be available elsewhere providing detail of the methodology used and also covering data quality issues. Therefore, where this is the case, below we have provided links to those quality reports. For indicators where the data are Official Statistics, rather than designated as National Statistics, there may not be a quality report available. However, quality information will be available in the Statistical Release, if one is published. Therefore, in these cases we have linked to the relevant Statistical Release.

For some indicators where the data are not published as Official Statistics, there is likely to be less information about quality already published and therefore we have included greater detail about quality within this document.

Indicator 1: Percentage of live single births with a birth weight of under 2,500g

Information in relation to data quality can be found in the Quality Report that accompanies the annual release [Maternity and birth statistics](#).

Indicator 2: Healthy life expectancy at birth, including the gap between most and least deprived

Healthy life expectancy at birth, including technical information about the measures, is published by the [Public Health Wales Observatory](#).

Indicator 3: Percentage of adults who have two or more healthy lifestyle behaviours

The data are from the [National Survey for Wales](#). Health-related behaviours can be a complex area to measure and there may be some differences between what people report and what they do. However, survey data still provides a reliable means of comparing patterns between different groups and over time. This indicator combines information about five different lifestyle behaviours. Results from 2020-21 onwards should not be compared with previous years. For further information, see the results on [Adult Lifestyle](#) and the National Survey for Wales [quality report](#).

Indicator 4: Levels of Nitrogen Dioxide (NO₂) pollution in the air

Each year the UK Government's Pollution Climate Mapping (PCM) model calculates average pollutant concentrations for each square kilometre of the UK. The model is calibrated against measurements taken from the UK's national air quality monitoring network.

The Welsh Government has used this published data to assign a concentration of NO₂, PM_{2.5} and PM₁₀ to each residential dwelling in Wales based on which square kilometre of Wales it sits in.

For each census output area (statistical geographic units comprising around 150 properties), the pollutant concentrations associated with each dwelling within it were averaged to give an average NO₂, PM_{2.5} and PM₁₀ concentration across the census output area.

For each local authority and local health board, a population-weighted average over its constituent census output areas were calculated to give an average NO₂, PM_{2.5} and PM₁₀ concentration based on where people live in those Local Authorities and Health Boards. The same calculation was also repeated over all census output areas, to give a comparable figure for the whole of Wales.

Indicator 5: Percentage of children who have two or more healthy lifestyle behaviours

Data are based on the School Health Research Network (SHRN) [Student Health and Well-being Survey](#).

The survey is carried out by the School Health Research Network (SHRN), which is led by the Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement (DECIPHer) at Cardiff University in partnership with Welsh Government; Public Health Wales; Cancer Research UK; and the Wales Institute of Social and Economic Research, Data and Methods (WISERD). The survey is undertaken every two years, and provides a regular snapshot of the health behaviours of 11 to 16 year olds in Wales. The survey is completed online in the classroom setting. In 2019/20, almost 120,000 students took part in the survey.

Please see the “Methods” section of the national report for further quality and methodology information.

Indicator 6: Measurement of development of young children

Please see the Foundation Phase baseline assessments section in the statistical release for [Academic achievement of pupils in Foundation Phase baseline assessment and at Key Stage 3, 2022](#).

Indicator 7: Average capped 9 points score of pupils, including the gap between those who are eligible or are not eligible for free school meals

Please see the quality section of the [annual statistical release Examination Results](#).

Indicator 8: Percentage of adults with qualifications at the different levels of the National Qualifications Framework

Please see the quality section of the statistical release [Levels of highest qualification held by working age adults](#).

Indicator 9: Gross Value Added (GVA) per hour worked, index (UK = 100)

These data are published by the Office for National Statistics (ONS). Further information can be found on the [Labour productivity Quality and Methodology Information webpage](#).

Indicator 10: Gross Disposable Household Income per head

These data are published by the Office for National Statistics (ONS). Further information can be found in their [regional gross disposable household income quality and methodology information paper](#).

Indicator 11: Percentage of businesses which are innovation-active

These data show the percentage of businesses that are innovation active. The UK definition of innovation follows the EU-wide definition adopted by Eurostat. Businesses are considered to be innovation active if they:

- introduced a new or significantly improved product (goods or service) or process
- engaged in innovation projects not yet complete or abandoned
- acquired new and significantly improved forms of organisation, business structures or practices and marketing concepts or strategies

Although each rate is available for the two population bases, as well as for several other age groups, there is an official standard population base used for each of the rates, as follows:

- Percentage of population of working age
- Economic activity
- Employment
- Economic inactivity (including or excluding students)
- Percentage of economically active population aged 16 and over
- ILO unemployment

The UK Innovation Survey is conducted by the Office for National Statistics (ONS) on behalf of the Department for Business, Energy and Industrial Strategy (BEIS). The UK Innovation Survey is part of a wider Community Innovation Survey (CIS) covering EU countries. The survey is based on a core questionnaire developed by the European Commission (Eurostat) and Member States. The UK Innovation Survey 2017 sampled approximately 30 thousand UK enterprises. The survey was voluntary and conducted by means of both a postal questionnaire and telephone interview for businesses that had not yet completed a postal response. The survey covered enterprises with 10 or more employees in sections C-K of the Standard Industrial Classification (SIC) 2007. The sample is drawn from the ONS Inter-Departmental Business Register.

Frequency of publication: Every two years.

Data reference periods: 2008/10 to 2018/20.

Users, uses and context: The data feeds into the economic analyses and other policy related work. It provides both a periodic snapshot of innovation behaviour and has the additional benefit of the panel dataset which facilitates longitudinal studies and evaluations of innovation policy.

Statistical quality: The results are sample-based estimates and therefore subject to differing degrees of sampling variability, i.e. the true value for any measure lies in a range about the

estimated value. This range or sampling variability increases as the detail in the data increases, for example individual local authority data are subject to higher variability than Wales data.

For further information see [UK innovation survey 2021](#).

Indicator 12: Capacity in megawatts (MW) of renewable energy equipment installed

The indicator is sourced from the [Energy Generation in Wales](#) study. Regen was commissioned by the Welsh Government to produce a database of energy generation projects in Wales; identify the extent to which projects are owned by Welsh individuals, organisations and communities; and analyse the data to produce a report on progress.

The research method developed by Regen to produce a detailed picture of energy generation across Wales includes:

- identifying, collating, cleansing and cross-referencing records from existing datasets;
- verifying and analysing the data to ensure a robust national overview and locally specific data where available;
- verifying the data with stakeholders and industry where appropriate;
- researching ownership details, including referencing to Companies House to identify projects with local ownership.

The key sources of data used in the study include:

Ofgem Feed-in Tariff data

Renewable Energy Guarantees of Origin Data

Renewables Obligation register

Renewable Heat Incentive and Renewable Heat Premium Payment data

Western Power Distribution connections data

SP Energy Networks connections data

Gemserv MCS data

Renewable Energy Planning Database

Contact with utilities

Contact with installers and industry organisations

A survey of small scale storage installers.

BEIS energy statistics

Indicator 13: Concentration of carbon and organic matter in soil

Measured from soil samples using the loss on ignition methodology to determine the soil carbon concentration. The Glastir Monitoring and Evaluation Programme collects evidence for all six intended outcomes from the Glastir scheme; climate change mitigation, improvement to soil and water quality, a halt in the decline of biodiversity, improved woodland management and greater access to the Welsh landscape and condition of historic features. Much of this is achieved through a field survey of 300 1km squares across Wales, half of which are focussed on areas prioritised for advanced payments. The 1km squares are selected at random from 26 land classes, ensuring good coverage of the Welsh landscape. Squares will be surveyed over a four year period and then revisited over the following four

years, meaning evidence of change will be collected and the effects of a single year's weather extremes are reduced. The area of 'Glastir land' within each surveyed square will vary and this is taken into account during analysis. Data from ongoing specialist monitoring programmes much of it collated by the Biological Records Centre is also included in analysis wherever possible to maximise use of all ongoing monitoring activity. Models are being used to estimate expected future outcomes so that adjustments can be made to match Welsh Government priorities and scheme impact can be maximised.

Samples are taken from across all of Wales' 26 land classes, including the peri-urban and coastal fringe. The survey consists of 300 1km sample squares approximately half of which fall outside of Glastir. The survey is intended to be an all Wales survey. The survey does exclude densely developed city areas and therefore it should not be considered as an inventory for brownfield sites.

Information about the Glastir Monitoring and Evaluation Programme can be found on their [website](#).

Indicator 14: The global footprint of Wales

Information about the methodology can be found in the report [Ecological and Carbon Footprints of Wales](#).

Indicator 15: Amount of waste generated that is not recycled, per person

This indicator is calculated from three separate elements – household waste, Construction & Demolition Waste and Industrial & Commercial Waste.

Household Waste – this element is based on residual (i.e. not recycled) household waste collected. This data does not take into consideration any waste generated as residual that is subsequently recycled, or waste generated in recycling streams that is subsequently rejected for disposal. The source for this data is Waste Data Flow, which collects local authority municipal waste data on a regular basis. Data are based on financial year. Additional information is available in the statistical release: [Local authority municipal waste management](#).

Construction and Demolition Waste – this element is based on the EU Waste Framework Construction and Demolition recovery target definition. This excludes hazardous waste and naturally occurring soils and stones. It includes backfilling activities. The source for this data is the 2019 Construction and Demolition waste survey where data was collected from 508 business sites of differing sectors and sizes throughout Wales between April 2021 and September 2021. Additional methodological information available in Section 2 of the report [Construction and demolition waste survey](#).

Industrial and Commercial Waste - the source for this data is the 2018 Industrial and Commercial waste survey, where data was collected from 1,755 business sites of differing sectors and sizes throughout Wales between April 2019 and October 2019. Additional methodological information available in Section 2 of the report: [Survey of industrial & commercial waste generated in Wales 2012](#).

Indicator 16: Percentage of people who are on permanent contracts (or on temporary contracts, and not seeking permanent employment) who earn at least the real living wage

This indicator is calculated from the Annual Population Survey (APS). This indicator measures the percentage of people in employment, who are on permanent contracts (or on temporary contracts, and not seeking permanent employment) and who earn at least the real living wage.

Please see [Annual Population Survey Quality and Methodology web page](#)

Indicator 17: Pay difference for gender, disability and ethnicity

Gender pay difference information is calculated from the Annual Survey of Hours and Earnings (ASHE) and published by ONS.

Disability and Ethnicity pay difference information is calculated from the Annual Population Survey and published by ONS

Please see [Annual Survey of Hours and Earnings, Low pay and Annual Survey of Hours and Earnings pension results Quality and Methodology Information](#); [Annual Population Survey Quality and Methodology Information](#).; and the data sources and quality sections of [Disability pay gaps in the UK - Office for National Statistics \(ons.gov.uk\)](#); [Ethnicity pay gaps - Office for National Statistics \(ons.gov.uk\)](#)

Indicator 18: Percentage of people living in households in income poverty relative to the UK median, measured for all people, children, working age adults and those of pension age

These data are published by the Department for Work and Pensions. Information on methodology and quality can be found on the Households below average income (HBAI) statistics [website](#).

The Welsh Government also carry out extra analysis of the HBAI datasets to consider economic status, housing tenure, family, ethnicity and disability characteristics. These data and summary analyses can be found on the Welsh Government's [Poverty Statistics webpages](#). Information on [methodology](#) and [data interpretation](#) can also be found on these pages.

Indicator 19: Percentage of people living in households in material deprivation

The questions included in the National Survey for Wales were taken from the Family Resources Survey (FRS), and the methodology used to classify people uses a similar, but not identical method (the FRS also uses income and some questions in the National Survey were only asked of those who were classed as 'borderline' deprived).

Non-pensioner adults were asked whether they had things such as 'a holiday away from home for at least a week a year', 'enough money to keep their home in a decent state of decoration', or could 'make regular savings of £10 a month or more'. The questions focussed on whether they could afford these items.

Pensioners were asked slightly different questions such as whether their 'home was kept adequately warm', whether they had 'access to a car or taxi, when needed' or whether they had their hair done or cut regularly'. These questions also asked whether they could afford

them, but also focussed on not being able to have these items for other reasons, such as poor health, or no one to help them etc.

People who did not have the items asked about were given a score, such that if they didn't have any item on the list they would have a score of 100, and if they had all items they had a score of 0. Non-pensioners with a score of 25 or more were classed as deprived and pensioners with a score of 20 or more were classed as deprived. Non-pensioners and pensioners have been grouped together for this indicator.

Please see the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey.

Indicator 20: Proportion of employees whose pay is set by collective bargaining

The results for this indicator are obtained from the Annual Survey of Hours and Earnings, published by ONS. This indicator measure employee jobs for those aged 16 and over, whose pay is set with reference to a collective agreement in April of the shown years.

Please see [Annual Survey of Hours and Earnings, Low Pay and Annual Survey of Hours and Earnings Pension Results Quality and Methodology Information](#).

Indicator 21: Percentage of the population aged 16-64 in work in Wales

These data are published by the Office for National Statistics. Please see their [Annual Population Survey Quality and Methodology web page](#).

Indicator 22: Percentage of people in education, employment or training, measured for different age groups

Please see the quality section of the statistical release [Participation of young people in education and the labour market](#) and the statistical bulletin for [Young people not in education, employment or training \(NEET\)](#).

Further detail is available in the [methodology note](#) for the derivation of estimates of the participation of young people in education and the labour market and the [guide](#) to the different sources of NEET statistics in Wales.

Indicator 23: Percentage of people who feel able to influence decisions affecting their local area

The indicator uses the percentage of people who 'strongly agree' or 'tend to agree' with the statement "I can influence decisions affecting my local area".

Please see the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey.

Indicator 24: Percentage of people satisfied with their ability to get to/ access the facilities and services they need

This indicator measures the percentage of people aged 16 or over who report feeling very or fairly satisfied with their ability to get to/access the facilities and services they need, within a 15 to 20 minute walk from their home.

Please see the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey.

Indicator 25: Percentage of people who feel safe at home, walking in the local area, and when travelling

This is based on four separate questions asked as part of the National Survey for Wales and uses the percentage of people who report feeling 'very safe' or 'fairly safe' in all of the following situations after dark:

- at home
- walking alone
- travelling by public transport
- travelling by car

More in-depth analysis is available in the statistical report "[Feeling safe in the local area](#)".

Please see the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey.

Indicator 26: Percentage of people satisfied with their local area as a place to live

Please see the National Survey for Wales [quality report](#) for further information and the research report "[Satisfied with local area](#)".

Indicator 27: Percentage of people agreeing that they belong to the area, that people from different backgrounds get on well together, and that people treat each other with respect

This indicator is based on three separate questions asked as part of the National Survey for Wales, and uses the proportion of people who strongly agree or tend to agree that:

- they belong to their local area
- the local area is a place where people from different backgrounds get on well together
- that people in the local area treat each other with respect and consideration

Please see the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey and the research report "[Sense of community](#)".

Indicator 28: Percentage of people who volunteer

The indicator uses the percentage of adults who give their time for free to help clubs or organisations. The data presented does not include people who provide care for someone.

See the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey.

Indicator 29: Mean mental well-being score for people

Adults: The mean mental well-being score is calculated according to the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). To assesses mental well-being on the WEMWBS scale, respondents were given 14 statements such as “I’ve been feeling relaxed” and “I’ve been thinking clearly” and were asked how often they felt this way on a five point scale, where 1 was ‘none of the time’ and 5 ‘all of the time’. A score from 14 to 70 was calculated based on these responses, with higher scores indicating better well-being. For further information, see the [release](#) including mental wellbeing.

Results from 2021-22 onwards should not be compared with previous years. See the National Survey for Wales [quality report](#) for more details on strengths and limitations of the National Survey.

Children: See the quality section of release [Health and well-being measures for children](#).

Indicator 30: Percentage of people who are lonely

This is the percentage of adults who are lonely according to the De Jong Gierveld loneliness scale.

To assess levels of loneliness on this scale, respondents were given 6 statements such as “I miss having people around” and “There are enough people I feel close to” and were asked to indicate the extent to which these statements applied to them. A score from 0 to 6 was subsequently calculated, and those with a score of 4 or more were classed as lonely.

In 2021-22, due to the sensitive nature of some of the questions the loneliness module was included within an online section of the survey. After completing the telephone section respondents were asked to go online and self-complete the final section. 90% of people who completed the telephone survey went on to complete the online section.

See the National Survey for Wales [quality report](#) for more details on strengths and limitations of the National Survey.

Indicator 31: Percentage of dwellings which are free from hazards

The Welsh Housing Conditions Survey 2017-18 measured the percentage of dwellings which were free from category 1 hazards based on the Housing Health and Safety Rating System (HHSRS). More information on the measuring and modelling of these hazards can be found in the Welsh Housing Conditions Survey [headline results](#) and [technical report](#).

Indicator 32: Number of properties (homes and businesses) at medium or high risk of flooding from rivers and the sea

The National Flood Risk Assessment (NaFRA) together with the National Property Dataset (NPD) are used to determine the number of properties (residential and non-residential) at risk of flooding from rivers and sea in Wales.

The chance of flooding is set out in four risk categories:

- High Risk - greater than or equal to 1 in 30 (3.3 per cent) chance in any given year
- Medium Risk - less than 1 in 30 (3.3 per cent) but greater than or equal to 1 in 100 (1 per cent) chance in any given year

- Low Risk - less than 1 in 100 (1 per cent) but greater than or equal to 1 in 1,000 (0.1 per cent) chance in any given year
- Very Low Risk - less than 1 in 1,000 (0.1 per cent) chance in any given year

The NaFRA includes flooding from all rivers with a catchment size greater than 3 square kilometres, and all flooding from the sea (both along the open coast and tidal estuaries). Smaller rivers are included in the assessment where they fall within the area that could be affected by an extreme flood (0.1 per cent chance in any year).

The assessment takes into account the type, location and condition of flood defences, and the chance of these defences being overtopped or breached during major floods. The likelihood of flooding and the consequent costs (economic damages) are assessed for each 50m square impact zone.

It does not include other forms of flooding such as highway drains, sewers, overland flow or rising groundwater.

Indicator 33: Percentage of dwellings with adequate energy performance

Dwellings with adequate energy performance have a SAP (Standard Assessment Procedure) rating of 65 or above. The SAP ratings were measured by qualified surveyors as part of the Welsh Housing Conditions Survey 2017-18. More information can be found in the Welsh Housing Conditions Survey [energy efficiency of dwellings report](#) and [technical report](#).

Indicator 34: Number of households successfully prevented from becoming homeless per 10,000 households

Information in relation to data quality can be found in the [quality report](#) that accompanies the [Homelessness](#) release.

Indicator 35: Percentage of people attending or participating in arts, culture or heritage activities at least 3 times a year

This indicator measures the percentage of people who say they have attended or participated in an arts, culture or heritage activity 3 or more times in the previous 12 months.

More in-depth analysis is available in the statistical report "[Arts, heritage sites, libraries and museums](#)". Please see the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey.

Indicator 36: Percentage of people who speak Welsh daily and can speak more than just a few words of Welsh

The results are based on both census data and Welsh Language Use Survey data.

In order to be consistent with national indicator 37, 'Percentage of people who can speak Welsh', this estimate is based on 2011 Census data as a baseline for the number of Welsh speakers, combined with data from the Welsh Language Use Survey 2019-20 for those who report being either 'fluent in Welsh', being able to 'speak a fair amount of Welsh', or those who could 'only speak a little Welsh'; and who also speak Welsh daily.

The Welsh Language Use Survey 2019-20 noted that 10% of people aged three or older spoke Welsh daily and could speak more than just a few words. This is the same percentage as in the Welsh Language Use Survey 2013-15.

The National Survey for Wales provides annual data for people aged 16 or older and suggests that this indicator has been stable over the past few years since the 2011 Census, at around 10-12%.

See the Welsh Language Use Survey [quality report](#) for more details on strengths and limitations of the survey.

Indicator 37: Number of people who can speak Welsh

This indicator uses the census of population.

The census continues to be the key source of information about the number of people who can speak Welsh, although information is available from sources such as the Annual Population Survey (APS) and National Survey for Wales (NSW). When comparing the Welsh language questions from household surveys to the 2011 Census results, it is important to remember that differences in sampling, mode of interview, and questionnaire design may cause differences between estimates. Estimates of the number of Welsh speakers are traditionally higher in household surveys (such as the APS and NSW) than in the census – it is not known precisely why, although it's likely that differences mentioned above affect the results. More information about the differences between the census and the Annual Population Survey is available in a [bulletin giving more detailed results regarding the Welsh language in the Annual Population Survey from 2001 to 2018](#). Further quality and methods information about the census is available on the Office for National Statistics [website](#).

Between censuses, the National Survey for Wales is used to monitor trends in the proportion of adults who can speak Welsh. The indicator is based on adults aged 16 or older who report that they can speak Welsh. The question allows people to answer yes, no, and also allows people to spontaneously report that they can't speak Welsh but that they have some Welsh speaking ability. For the purpose of this indicator, people who can speak Welsh is defined as those who answer 'yes' to this question only.

Comparisons with results from previous years of the National Survey (2012 – 2015) are possible.

See the National Survey for Wales [quality report](#) for more details on strengths and limitations of the survey.

Indicator 38: Percentage of people participating in sporting activities three or more times a week

Adults – the questions asked were originally from the Active Adults Survey, now incorporated into the National Survey for Wales, with some minor adaptation.

For this indicator respondents were shown a series of indoor and outdoor activities and asked whether they had participated in any of them. If they did, they were asked how many times they had participated in the activity over the previous 4 weeks.

Results from the Active Adults Survey and National Survey for Wales are not directly comparable due to differences in survey design.

See the National Survey for Wales [quality report](#) for more details on strengths and limitations of the survey.

Children – This information is published by [Sport Wales](#). The School Sport Survey is an online survey of pupils' sports participation and school provision of Physical Education (PE)

and sport. The latest *School Sport Survey* took place in the summer term of 2018 from 16th April until 24th July. Pupils complete a questionnaire on their participation and attitudes towards Physical Education (PE) and sport. In the 2018 survey, 118,893 Year 3-11 pupils took part in the survey and 1,055 teachers completed a School Sport Survey provision questionnaire. The next update is due in Autumn 2022.

Indicator 39: Percentage of museums and archives holding archival/heritage collections meeting UK accreditation standards

The measure for museums shows the number of institutions that have achieved the UK Museum Accreditation Standard. The baseline to be eligible for Accreditation status is that the institution meets the Museums Association's 1998 definition of a museum: "Museums enable people to explore collections for inspiration, learning and enjoyment. They are institutions that collect, safeguard and make accessible artefacts and specimens, which they hold in trust for society"; be a physical site/space/building which is open to the public regularly; enables the public to see and engage with the institution's collections; has an appropriate constitution which supports the long-term purpose of a public museum. To gain Accreditation status, a museum must demonstrate they are governed and managed properly, manage their collections effectively and provide appropriate user experiences.

The measure for archives shows the number of archive-holding institutions that have achieved the UK Archive Service Accreditation Standard. The baseline definition of an archive service for inclusion in this measure is that the institution should be recognised by The National Archives as a Place of Deposit for locally held public records (and therefore required to meet the Accreditation Standard to keep this statutory designation), and also be a member of Archives and Records Council Wales (ARCW).

Information on the accreditation process for both [museums and archives](#) is available on the Welsh Government website.

Indicator 40: Percentage of designated historic environment assets that are in stable or improved conditions

Scheduled Monuments

Surveys of the condition of the scheduled monuments in Wales have been taking place since the mid-1980s and are carried out in-house by Cadw's team of Field Monument Wardens. Today this is through a rolling survey programme during which 10 per cent of assets are surveyed each year to a consistent assessment methodology. Seven overall condition categories are used, ranging from destroyed to greatly improved.

Most scheduled monuments are earthwork structures and unoccupied historic buildings, usually in ruined condition such as castles, medieval abbeys and abandoned industrial remains. Many are in remote and rural locations. The physical nature of the scheduled monuments means that in the absence of any specific interventions, the most likely condition assessment for the majority would be stable or demonstrating slight deterioration. Improvement to condition is almost without exception a consequence of active intervention such as positive land management and targeted conservation projects. The main threats affecting monuments recorded as being at risk are significant weathering, storm and flood damage – all of which have links with the effects of climate change and excessive unchecked vegetation growth leading to accelerated natural decay – which is best controlled through positive land management practices.

Listed Buildings

Surveys of the condition of listed buildings have been carried out in Wales since 1998. The review programmes cover a five-year rolling period, with approximately 20 per cent of listed buildings stock in Wales being surveyed per year. The programme of surveys will ensure that the condition of all 30,000 listed buildings in Wales during the survey programme period is assessed using consistent methodology. The proportion of listed buildings in a stable or improving condition is calculated using existing survey data and the most up-to-date data available from the 20 per cent of the building stock which has been re-surveyed in the past year.

It should be noted that the figures presented for each year relate to the sample surveyed during the course of that year. Each year's sample is drawn from a small number of local authorities across different Welsh regions. Some year-on-year variation is to be expected.

Indicator 41: Emissions of greenhouse gases within Wales

This is published by DEFRA. More information is available in the report [UK Greenhouse Gas Inventory, 1990 to 2022](#).

Indicator 42: Emissions of greenhouse gases attributed to the consumption of global goods and services in Wales

Ecological footprint

There is no internationally agreed method for national footprint calculation. However, two basic methodologies are widely accepted and have been applied in numerous studies:

- using financial information (trade values) and multipliers derived from economic input-output analysis
- using physical information (trade volumes) in combination with life cycle coefficients that identify the impact of these traded goods

Each has its advantages and limitations. In the study used for the data presented in the Well-being of Wales report, and previous studies for Wales, the first approach was selected. The main reasons for this are that the method is based on global trade, production and consumption data for the whole economy. This means that it does not suffer from truncation errors (it captures the impacts along full supply-chains). The crucial advantage of input-output based analysis is that it is possible to attribute environmental impacts to virtually any:

- consumption activity, such as consumption of regions, nations, governments, cities
- socio-economic groups or individuals, whether domestically or abroad (imports/exports)
- production activity, such as agriculture, manufacturing, services etc.
- associated economic activity such as supply chains, trade flows or recycling

Input-output analysis has been applied to ecological footprint analyses for a decade and is now a well-established technique for the calculation of ecological footprints of nations, sub-national entities, socio-economic groups and organisations or companies. It is also accepted as an approach within the Global Footprint Network's (GFN) standards.

Carbon footprint

A carbon footprint can also be calculated using the same input-output method described above, and for consistency and to benefit from the advantages listed the same technique is applied. This approach is also commonly used for estimating consumption based emissions at the national level and has been applied in numerous studies for many different countries.

Information about the methodology can be found in the report [Ecological and carbon footprints of Wales update to 2011](#).

Indicator 43: Area of healthy ecosystems in Wales

Natural Resources Wales have developed a new approach using satellite imagery to update our existing understanding of the distribution and extent of habitats across Wales. This will be capable of being updated in the coming years using consistent data sources and methodology.

The latest estimate using this new methodology should be considered as 'experimental' at this stage, as further work is intended to refine the approach and allow more detailed presentation of the results in future. The estimate of semi-natural habitat presented here includes land areas which are clearly semi-natural habitats, those which are bracken and some areas of land, here called 'candidate semi-natural' habitats which have the potential to function more like semi-natural habitats than habitats that have been subject to intensive agricultural improvement.

For further details see Natural resources Wales Briefing: [A new baseline of the area of semi-natural habitat in Wales for Indicator 43](#).

Indicator 44: Status of biological diversity in Wales

Work has been commissioned through the Welsh Government ERAMMP (Environment and Rural Affairs Monitoring & Modelling Programme) on developing the national indicator on Status of Biological Diversity in Wales. The focus of this work has been on combining annual estimates into a single indicator of change in the distribution of priority species over time.

Please see the [ERAMMP Report-78: Interim Report on the Development of Indicator-44 \(Status of Biological Diversity in Wales\)](#) for further information on methodology.

Indicator 45: Percentage of surface water bodies and groundwater bodies achieving good or high overall status

Water quality: Percentage of surface water bodies and groundwater bodies achieving good or high overall status under the Water Framework Directive. Surface water bodies in Wales are classified on their status by Natural Resources Wales as a requirement of the Water Framework Directive. Good status is defined as water that shows only a slight change from what would normally be expected under undisturbed conditions. Good overall status (Water Framework Directive) encompasses:

Surface Water

- 'Good surface water status' is that achieved by a surface water body when both its 'ecological status' and its 'chemical status' are at least good.
- 'Ecological status' is an expression of the structure and functioning of aquatic ecosystems associated with surface waters. Such waters are classified as of 'good ecological status' when they meet Directive requirements.

- 'Good surface water chemical status' means that concentrations of chemicals in the water body do not exceed the environmental limit values specified in the Directive.

Ground Water

- 'Good groundwater status' is that achieved by a groundwater body when both its quantitative status and chemical status are good.
- 'Quantitative status' is an expression of the degree to which a body of groundwater is affected by direct and indirect abstractions. If this complies with Directive requirements the status is good.
- 'Good chemical status' is ascribed to a groundwater when it meets Directive requirements for the maximum levels of defined chemicals.

Indicator 46: Active global citizenship in Wales

A new set of questions about participation in global affairs was introduced in 2021 and was included in the online section of the National Survey. The questions ask whether respondents have donated or raised money, volunteered or supported any activities related to global issues such as human rights, refugees, or global environmental issues.

Please see the National Survey for Wales [quality report](#) for further information on the strengths and limitations of the survey.

Indicator 47: Percentage of people who have confidence in the justice system

To be measured using an appropriate social survey, such as the National Survey for Wales. Further details on the measure for this indicator will be added as the detail of the indicator is developed.

Indicator 48: Percentage of journeys by walking, cycling or public transport

Until a National Travel Survey is developed, this indicator is measured using data on the usual method of travel to work from the labour force survey. Please see the Labour Force Survey [quality report](#) for further information.

Indicator 49: Percentage of households spending 30% or more of their income on housing costs

Percentage of households spending 30% or more of their income on housing costs derived from data from the Department for Work and Pensions' Family Resources Survey (FRS). Housing costs include rents, mortgage interest and capital repayments, water and sewerage rates, structural insurance cover, service charges and council tax (net of rebates). Domestic energy use such as gas and electric costs are not collected as part of this survey and are not included. Income is gross unequivalised household income for all members of the household and includes all benefits, pensions, investments and earnings. Data is presented for different housing tenures including: All tenures; owned outright; owned with a mortgage; private rented; and social housing rented (from local authority or Registered Social Landlord). Results are based on financial years' data. Due to the small sample sizes for Wales in the Family Resources Survey data three financial years are combined.

The 2020-21 data collection process for the DWP Family Resources Survey was impacted by COVID-19. As such analysis of the FRS data below UK level is not recommended using 2020-21 data as the combination of smaller sample sizes and additional bias means it is not possible to make meaningful statistical assessments of trends and changes in the most

recent year compared to the pre-coronavirus level. See our article on [measures of poverty April 2020 to March 2021 for more detail](#). As a result, the latest data on households spending 30% or more of their income on housing costs is based on the three financial years up to 2019/20.

Indicator 50: Status of digital inclusion

Currently under development, alongside the development of a minimum digital living standard. Further details on the measure for this indicator will be added as the indicator is developed.