

# Open Data

# Inventory 2018/19

## Methodology Report

# INTRODUCTION

The Open Data Inventory (ODIN) 2018/19 assesses the coverage and openness of statistics produced by national statistical systems as published on the official website of the national statistical office (NSO). Coverage refers to the availability of important statistical indicators in 21 categories of social, economic, and environmental statistics. Openness refers to the way in which the data are made available. The purpose of ODIN is to provide an objective and reproducible measure of the public availability of national statistics, and their adherence to open data standards. ODIN evaluates openness on a spectrum, measuring the degree of openness rather than classifying datasets as open or closed.

Each data category is assessed on five elements of coverage and five elements of openness. Aggregate scores are computed across the categories and elements. The overall ODIN score is an index of how complete and open an NSO's data offerings are.

The terms "data," "statistics," and "indicators" are used interchangeably in this document. They all refer to numerical measures of some characteristic of people, the economy, or the natural or built environment. The agencies that produce these indicators under governmental authority are described collectively as the "national statistical system" or "NSS," and the lead agency is referred to as the "national statistical office" or "NSO."

For the Open Data Inventory 2018/19, Open Data Watch appoints assessors to conduct assessments of the websites maintained by national statistical offices (NSOs) in approximately 178 countries. This guide describes the assessment research and scoring process.

# FREQUENTLY ASKED QUESTIONS

## **What is ODIN?**

The Open Data Inventory (ODIN) is an evaluation of the coverage and openness of data provided on the websites maintained by national statistical offices (NSOs). The overall ODIN score is an indicator of how complete and open an NSO's data offerings are. The summary scores for social, economic, and environmental statistics and summary scores for coverage and openness provide a picture of the national statistical systems' strengths and weaknesses.

## **When and how was ODIN 2017 conducted?**

The ODIN 2018/19 assessments were carried out between July and October 2017. To conduct these assessments, Open Data Watch hired and trained a group of researchers skilled in various languages to complete the first round of assessments. Following the initial assessment, each country underwent two layers of reviews and, if necessary, revisions between October and December 2018. Data published after October 2018 is not used in this assessment.

## **What is ODIN's purpose?**

ODIN helps identify critical gaps, promote open data policies, improve data access, and encourage dialogue between NSOs and data users. NSOs and their development partners can use ODIN as part of a strategic planning process and as a measuring rod for the development of the statistical system.

ODIN provides valuable information to data users within the government and private sectors and to the public about the availability of important statistical series. In addition to the ratings of coverage and openness in twenty-one statistical categories, ODIN assessments record the online location of key indicators in each data category, permitting quick access to 56 indicators.

## **Why assess national statistical offices?**

ODIN assessments begin with the websites maintained by national statistical offices because, in most countries, the NSO is the lead agency of the national statistical system, coordinating its work with other governmental bodies that produce official statistics. If an official national data source can be reached from the NSO's website, it is included in the ODIN assessment. NSOs, as producers and caretakers of official statistics, have a special obligation to maximize their public benefit.

NSOs can and should be the leading advocates for and providers of high quality, official statistics to government, the public, and the international community.

## **How is open data defined?**

There is general agreement on the core meaning of open data. As summarized in the Open Definition, version 2.1s, "Knowledge is open if anyone is free to access, use, modify, and share it — subject, at most, to measures that preserve provenance and openness." This definition has been operationalized in the [International Open Data Charter](#). In practical terms, open data should be machine readable in non-proprietary formats, accompanied by descriptive metadata and export options that allow customization and bulk download, and free to be used and reused for any purpose without limitations other than acknowledgement of the original source. These requirements have been incorporated in the five elements of the ODIN openness assessment.



## **What data categories are included?**

ODIN assessments review published statistics in twenty- one categories, grouped as social statistics, economic and financial statistics, and environmental statistics. The default ODIN overall score weights the three groups equally. In each category, representative indicators were selected because they are frequently needed for public policies or private initiatives and because they provide evidence of underlying statistical processes for which statistical offices are responsible. The data categories in ODIN 2017 are:

### Social Statistics

1. Population and Vital Statistics
2. Education Facilities
3. Education Outcomes
4. Health Facilities
5. Health Outcomes
6. Reproductive Health
7. Gender Statistics
8. Crime and Justice Statistics
9. Poverty Statistics

### Economic Statistics

10. National Accounts
11. Labor Statistics
12. Price Indexes
13. Government Finance
14. Money and Banking
15. International Trade
16. Balance of Payments

### Environmental Statistics

17. Land Use
18. Resource Use
19. Energy Use
20. Pollution
21. Built Environment

More information about the indicators in each data category and how data categories were scored can be found in Annex 1-3.

## **How did NSOs participate in ODIN 2018/19?**

Open Data Watch invited all countries' national statistical offices to provide feedback on the datasets recorded in ODIN. Sixty-nine national statistical offices participated in this review process, where they had the opportunity to provide suggestions and feedback on datasets before the final review.

## **UPDATES IN 2018**

There are a few methodological changes in the 2018/19 Open Data Inventory (ODIN). The main changes are described below. For further details, please read the ODIN 2018/19 Methodology Report.

**Country Coverage:** The total number of countries assessed in 2018 was 178, down two from last year. Chad and Kiribati were removed from this year's assessment because their websites experienced significant technical issues during the assessment period that made it impossible to complete their assessments.

**Geographic Disaggregation:** ODIN data coverage criteria requires geographic disaggregation of data, but some data categories are excluded. For example, international trade data is excluded from disaggregation at the first or second administrative level. This year, additional categories were added to the exclusion list, including pollution, energy use, price indexes, and resource, which are now excluded from second administrative level disaggregation.

After numerous consultations, it became clear that even countries with excellent reporting practices often did not produce these datasets at the second administrative level. Therefore, these criteria were not appropriate as representative measures of data coverage. Furthermore, other individual indicators were also excluded from second administrative level disaggregation, including education and health budget data, maternal mortality ratio, infant mortality rate, proportion of women in government, persons in prison, distribution of income, and data on land use.

In line with these changes, we also accepted several alternative classifications for first administrative level disaggregation credit, as appropriate for the data type. For example, most environmental data can receive first administrative disaggregation credit for disaggregation by urban and rural areas. By default, first administrative disaggregations for each country are based on the International Organization for Standards (ISO) 3166.

**Increased Country Engagement:** In 2018, Open Data Watch invited every country evaluated in ODIN to participate in the assessment process. During this process, countries' national statistical offices were invited to suggest additional datasets for the ODIN team to consider to be counted in their assessment and to provide comments on their coverage gaps. In 2017, 65 countries agreed to participate and in 2018, 99 countries agreed to participate. The number of countries that provided comments increased as well, from 48 to 69 countries. This increased engagement with countries has led to more countries seeking direct consultation with Open Data Watch as they implement open data initiatives and an increased use of ODIN by countries as an internal tool to measure progress.

**Sustainable Development Goals (SDG):** Many SDG indicators are now accepted in place of certain ODIN indicators if the corresponding ODIN indicator is not published. For example, ODIN indicator 4.2 Number of beds or data on healthcare staff, can be substituted by SDG indicator 3.c.1 Health worker density and distribution. ODIN indicators are meant to be representative of the primary information published by countries and are crucial to the framework of many of the SDG indicators. It is rare for a country to publish data on SDG indicators, while not providing data on the more primary underlying ODIN indicators, but this methodology change allows countries to receive credit for either. In Annexes 1-3, the SDG indicators accepted are listed below each category.

## SOCIAL STATISTICS GUIDELINES

### Population & Vital Statistics

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Population &amp; Vital Statistics</b>	(1.1) Population by 5-year age groups  (1.2) Crude birth rate  (1.3) Crude death rate	(1.1) Sex; marital status  (1.2) Sex; marital status  (1.3) Sex	<u>To receive full point:</u> Must have all indicators disaggregated by sex.  <u>To receive half point:</u> Must have at (1.1) with one disaggregation, or (1.2) and (1.3) with one disaggregation each.	(1.1) Projections are accepted.  (1.2, 1.3) Number of births/deaths and birth and death registration figures are accepted. Births and deaths presented as sex ratios are not accepted as sex-disaggregated.	(1.1) Population data does not need to be disaggregated by 5-year age groups at the first or second administrative level.

### Commonly Used Sources

Commonly used sources include: Annual Statistical Yearbooks, Household and Population surveys, statistical abstracts, population estimate reports, demographic reports, and data portals. Additionally, crude birth and death rate figures are often included in Demographic and Health Surveys (DHS) and the Multiple Indicator Cluster Survey (MICS).

### Methodological Changes

Number of births/deaths and birth and death registration figures are accepted now for indicators 1.2 and 1.3.

## Education Facilities

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Education Facilities</b>	<p>(2.1) Number of schools or classrooms;</p> <p>(2.2) Number of teaching staff;</p> <p>(2.3) Education budget data.</p>	<p>(2.1) School stage; school type.</p> <p>(2.2) School stage; school type;</p> <p>(2.3) School stage; functional categories.</p>	<p><b>To receive full point:</b> Must have all three indicators disaggregated as follows: (2.1) and (2.2) by school stage (see notes) and one other disaggregation and (2.3) with one disaggregation.</p> <p><b>To receive half point:</b> Must have one indicator with two disaggregations or two indicators with one disaggregation each.</p>	<p>(2.1-2.3) School stage at a minimum refers to primary, plus two other stages (ideally, secondary and post-secondary/tertiary) above primary. The two other stages must not be subsets of primary education. See <a href="#">UNESCO guidelines</a> for more information on school stages.</p> <p>(2.1, 2.2) School types may include technical/vocational vs. general schools, public vs. private schools, and other similar divisions. To record data disaggregated by school type, the data cannot cover only a small proportion of the general school age population.</p> <p>(2.3) GDP contribution to education is not accepted. Ministry of Education expenditures or allocations are accepted.</p>	<p>(2.3) Budget data at the first administrative level does not need to have categorical disaggregation to be recorded. Allocations from the central government to first administrative divisions is accepted (either as an absolute figure or percentage of total).</p> <p>Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.</p>

### Commonly Used Sources

Commonly used sources for education facilities include: Annual Statistical Yearbooks, key indicators publications, digests on education statistics, social statistics reports, government finance reports (for annual education budget), and data portals. Data may also be available on a country's Ministry of Education website.

## Methodological Changes

There are no changes to the indicators, however some of the disaggregations have changed.

**Removed “Age” disaggregation:** In the previous ODIN, the the disaggregation for “age” was an option for indicators 2.1 and 2.2.

**Geographic disaggregation for indicator 2.3:** See geographic notes above.

## Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (2.2) number of teaching staff, the corresponding SDG indicator is:**

4.c.1 Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country

# Education Outcomes

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets
<b>Education Outcomes</b>	<p>(3.1) Enrollment rate;</p> <p>(3.2) Completion or graduation rate;</p> <p>(3.3) Competency exam results.</p>	<p>(3.1, 3.2) Sex; school stage; age; school type.</p> <p>(3.3) Sex.</p>	<p><u>To receive full point:</u> Must have all indicators disaggregated as follows: (3.1) and (3.2) by sex and one other disaggregation, and (3.3) by sex.</p> <p><u>To receive half point:</u> Must have (3.1) or (3.2) with two disaggregations, or (3.3) disaggregated by sex. Two indicators with only one disaggregation each is not enough.</p>	<p>(3.1) Number of students are accepted.</p> <p>(3.1, 3.2) School stage at a minimum refers to primary, plus two other stages (ideally, secondary and post-secondary/tertiary). The two other stages must not be subsets of primary education. See <a href="#">UNESCO guidelines</a> for more information on school stages. ODIN takes into account the unique context of each country's education system.</p> <p>(3.1, 3.2) School type may refer to technical schools, public, private, etc.</p> <p>(3.1-3.2) Datasets cannot cover only a small proportion of the general school age population unless it covers at least primary stage (or comparable). For example, graduation rates for only secondary students disaggregated by school type would not be accepted.</p> <p>3.1-3.3) Attainment, attendance, and literacy rates are not accepted. Age groups count as age disaggregation.</p> <p>(3.3) Matriculation exam results, or other exams that only are taken by certain grade levels, are accepted.</p>

## Commonly Used Sources

Commonly used sources for education outcomes include: Annual Statistical Yearbooks, key indicators publications, digest on education statistics, social statistics reports, Millennium Development Goal (MDG) reports, and data portals. Data may also be available on a country's Ministry of Education website.

## Methodological Changes

There are no changes to the indicators.

## Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

### **For (3.3) competency exam results, the corresponding SDG indicator includes:**

4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

4.6.1 Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex

## Health Facilities

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Health Facilities</b>	<p>(4.1) Number of health facilities;</p> <p>(4.2) Number of beds or data on health care staff;</p> <p>(4.3) Health budget data.</p>	<p>(4.1) Facility type;</p> <p>(4.2) Facility type; department type; staff type</p> <p>(4.3) Functional categories</p>	<p><u>To receive full point:</u> Must have two indicators with one disaggregation each.</p> <p><u>To receive half point:</u> Must have one indicator with one disaggregation.</p>	<p>(4.1-4.3) Facility types include clinics, hospitals, pharmacies, dental clinics, public/private hospitals, etc. (at least two must be present). Department types include surgery, ophthalmology, internal medicine, pediatric care, dentistry, etc. (at least two must be present). Some countries may have different category names and this is analyzed on a case by case basis.</p> <p>(4.1-4.3) Figures only for the public sector are accepted. Figures only for the private sector will be reviewed on a case by case basis.</p> <p>(4.2) Data on health care staff include number of health care staff or health worker density and distribution.</p> <p>(4.3) Ministry of Health expenditures or allocations are accepted.</p>	<p>(4.3) First administrative divisions are defined leniently, as is appropriate for each country's education system.</p> <p>Budget data at the first administrative level does not need to have categorical disaggregation to be recorded. Allocations from the central government to first administrative divisions is accepted (either as an absolute figure or percentage of total).</p> <p>Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.</p>

### Commonly Used Sources

Commonly used sources for health facilities include: annual statistical yearbooks, Demographic and Health Surveys, Multiple Indicator Cluster Survey, and data portals such as DevInfo. Data may also be available on a country's ministry of health website, though the NSO must provide a link to the ministry website.

### Methodological Changes

Changes have been made in the organization of the indicators:

**In ODIN 2017, this category had the following indicators:**

- (4.1) Number of health facilities, with the available disaggregation of facility type
- (4.2) Number of beds or health budget, with the available disaggregations of facility type; department type; functional categories
- (4.3) Number of health care staff, with the disaggregation of health care staff

**This has changed to:**

- (4.1) Number of health facilities, with the available disaggregation of facility type
- (4.2) Number of beds or data on health care staff; with the available disaggregation of facility type, department type, staff type
- (4.3) Health budget data, with the available disaggregation of facility staff, department staff, and functional categories

Because of this, datasets for last year's indicator 4.2 and 4.3 mabe used for a different indicator. For example, if data was provided on indicator 4.3, number of health care staff, last year, this would be used for indicator 4.3 this year because the indicator numbers have shifted.

Additional changes include,

**Geographic disaggregation for indicator 4.3:** See geographic notes above.

**Definition of indicator 4.2:** Health worker density data is now accepted.

**Corresponding SDG Indicators\***

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (4.2) number of beds or data on health care staff, the corresponding SDG indicator includes:**

3.c.1 Health worker density and distribution

**For (4.3) health budget data, the corresponding SDG indicator includes:**

1.a.2 Proportion of total government spending on essential services (education, health and social protection)

## Health Outcomes

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets
<b>Health Outcomes</b>	<p>(5.1) Immunization rate.</p> <p>(5.2) Diseases prevalence or incidence.</p> <p>(5.3) Stunting, wasting, or obesity rate.</p>	<p>(5.1) Age; sex.</p> <p>(5.2) Age; sex; disease type.</p> <p>(5.3) Age; sex.</p>	<p><u>To receive full point:</u> Must have (5.1), (5.2) and (5.3) by sex, and (5.2) by disease type.</p> <p><u>To receive half point:</u> Must have at least one indicator with one disaggregation.</p>	<p>(5.1, 5.3) Rates for children/infants is accepted as age disaggregation if the age group is defined. In general, age groups count as age disaggregation. Absolute figures are not accepted.</p> <p>(5.2) Data must show figures for at least two diseases.</p> <p>(5.2) Mortality rates disaggregated by disease type are not accepted.</p> <p>(5.3) Undernourishment rate is not accepted. Malnourishment rate is accepted. Underweight or overweight rates are accepted. Wasting is also referred to as low weight-to-height.</p> <p>Obesity/overweight is also referred to as high weight-to-height. Stunting is also referred to as low height-for-age.</p>

### Commonly Used Sources

Commonly used sources for health outcomes include: Annual Statistical Yearbooks, health statistics reports, Multiple Indicator Cluster Survey (MICS), Demographic and Health Survey (DHS), Millennium Development Goal (MDG) reports, and data portals. Data may also be available on a country's Ministry of Health website.

### Methodological Changes

There are no changes to the indicators, however some of the disaggregations have changed.

**Disaggregation revision to 5.2:** In the previous ODIN, the disaggregation for "disease type" was not included for indicator 5.2, even though disease types were required to be shown.

**Exceptions for indicator 5.2:** Previously, if a country only reported on HIV or AIDS prevalence, this was enough. Now all countries must present data on at least two diseases (aka, disaggregated by disease type) to be recorded.

### Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (5.1) immunization rate, the corresponding SDG indicator includes:**

3.b.1 Proportion of the target population covered by all vaccines included in their national programme

**For (5.2) Diseases prevalence/incidence, the corresponding SDG indicator includes:**

3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations

3.3.2 Tuberculosis incidence per 100,000 population

3.3.3 Malaria incidence per 1,000 population

3.3.4 Hepatitis B incidence per 100,000 population

**For (5.3) Stunting, wasting, or obesity rates, the corresponding SDG indicator includes:**

2.2.1 Prevalence of stunting (height for age  $<-2$  standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age.

2.2.2 Prevalence of malnutrition (weight for height  $>+2$  or  $<-2$  standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)

## Reproductive Health

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Reproductive Health</b>	<p>(6.1) Maternal mortality ratio or rate.</p> <p>(6.2) Infant mortality rate or neonatal mortality rate;</p> <p>(6.3) Under-5 mortality rate;</p> <p>(6.4) Fertility rate;</p> <p>(6.5) Contraceptive prevalence rate;</p> <p>(6.6) Adolescent birth rate.</p>	<p>(6.1) Optional.</p> <p>(6.2, 6.3) Sex;</p> <p>(6.4-6.6) None.</p>	<p><u>To receive full point:</u> Must have five indicators with one disaggregation each.</p> <p><u>To receive half point:</u> Must have two indicators with one disaggregation each.. One must be a mortality rate.</p>	<p>(6.1-6.6) Absolute figures cannot replace rates/ratios (as specified). See <a href="#">WHO definitions</a> for each indicator:</p> <p>(6.1) Maternal mortality ratio/rate should be presented as number of deaths per live births.</p> <p>(6.2) Infant mortality rate should be presented as number of infant deaths per live births. Neonatal mortality rate should be presented as number of deaths during the first 28 days of life per live births.</p> <p>(6.3) Under-5 mortality rate is presented as number of under-5 deaths per live births.</p> <p>(6.4) Fertility rate is presented as number of children per woman.</p> <p>(6.6) Adolescent birth rate is presented as number of births per women ages 15-19. Age-specific fertility rates are accepted for women under 19 years of age.</p>	<p>(6.1, 6.2) First administrative divisions are defined leniently, such as urban and rural, or other appropriate disaggregations.</p> <p>Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.</p>

### Commonly Used Sources

Commonly used sources for reproductive health include: Annual Statistical Yearbooks, health statistics reports, Multiple Indicator Cluster Survey (MICS), Demographic and Health Survey (DHS), Millennium Development Goal (MDG) reports, and data portals. Data may also be available on a country's Ministry of Health website.

## Methodological Changes

Changes have been made to the following indicators:

**Definition of indicator, infant mortality rate:** Neonatal mortality rate is now accepted as a substitute.

**Geographic disaggregation for indicator 6.1, 6.2:** See notes above.

## Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (6.1) Maternal mortality ratio/rate, the corresponding SDG indicator includes:**

3.1.1 Maternal mortality ratio

**For (6.2) Infant mortality rate or neonatal mortality rate, the corresponding SDG indicator includes:**

3.2.2 Neonatal mortality rate

**For (6.3) Under-5 mortality rate, the corresponding SDG indicator includes:**

3.2.1 Under-5 mortality rate

**For (6.5) Contraceptive prevalence rate, the corresponding SDG indicator includes:**

3.7.1 Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods

**For (6.6) Adolescent birth rate, the corresponding SDG indicator includes:**

3.7.2 Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group

## Gender Statistics

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Gender Statistics</b>	<p>(7.1) Proportion or number of women who are victims of physical, sexual, or psychological violence;</p> <p>(7.2) Proportion of women in government, management or senior positions;</p> <p>(7.3) Data on child marriages.</p>	<p>(7.1) Age; disability status; relationship to perpetrator;</p> <p>(7.2) None;</p> <p>(7.3) None.</p>	<p><u>To receive full point:</u> Must have all indicators with one disaggregation (unless optional).</p> <p><u>To receive half point:</u> Must have at least one indicator with one disaggregation (unless optional).</p>	<p>(7.1) Data on people’s opinions/attitudes about violence against women are not accepted.</p> <p>(7.1) Data must either show victimization rates for both men and women, or specify data is only for women (even if the offense is sexual assault, rape, or domestic violence).</p> <p>(7.2) Share of women in employment in the non-agricultural sector is not accepted. Number of women in certain professions may be accepted on a case by case basis. Data must be presented as a rate. Absolute figures are only accepted if the data is disaggregated by two sexes.</p> <p>(7.3) “Child” is defined as under 18 years of age. Countries may define “child” marriages differently and this data is accepted if maximum age is under 18. Data may also be called “early marriages.” Age of first marriage is accepted if figures are not averages, medians, or modes.</p>	<p>(7.2) First administrative divisions are defined leniently, as appropriate is planned p.</p> <p>Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.</p>

### Commonly Used Sources

Commonly used sources for gender statistics include: Annual Statistical Yearbooks, gender reports, national crime victimization surveys, reports on elected officials, or data portals.

### Methodological Changes

Changes to the following indicators have been made:

**Definition of indicator (7.1):** This indicator has been revised to proportion or number of women who are victims of physical, sexual, or psychological violence, with the disaggregation of age; disability status; relationship to perpetrator. In previous ODIN assessments, indicator 7.1 was only on “data on violence against women” disaggregated by “violent offense type.” The new definition allows for a wider range of qualified datasets.

**Geographic disaggregation revision to 7.2:** See notes above.

### Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (7.1) Data on violence against women, the corresponding SDG indicator includes:**

5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age

5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence.

11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months.

16.2.2 Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation.

**For (7.2) Proportion of women in government or management/senior positions, the corresponding SDG indicator includes:**

5.5.1 Proportion of seats held by women in (a) national parliaments and (b) local governments

5.5.2 Proportion of women in managerial positions

**For (7.3) Data on child marriages, the corresponding SDG indicator includes:**

5.3.1 Proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18

# Crime Statistics

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Crime Statistics</b>	<p>(8.1) Homicide rate or count;</p> <p>(8.2) Crime rate or count;</p> <p>(8.3) Persons in prison or incarceration rate.</p>	<p>(8.1) Sex of victim; age of victim; sex of perpetrator; age of perpetrator; victim/perpetrator relationship.</p> <p>(8.2) Crime type; age of victim; sex of perpetrator; age of perpetrator; victim/perpetrator relationship.</p> <p>(8.3) Sentencing status; age; sex.</p>	<p><u>To receive a full point:</u> Must have all three indicators with one disaggregation each or two indicators with two disaggregations each. (8.2) must be disaggregated by crime type.</p> <p><u>To receive half point:</u> Must have one indicator with two disaggregations or two indicators with one disaggregation each.</p>	<p>(8.1-8.3) Age groups count as age disaggregation.</p> <p>(8.1) The definition of homicide may vary by country, but should include murder; honor killings; serious assaults leading to death; death as a result of terrorist activities, etc. as defined in the <a href="#">International Classification of Crime for Statistical Purposes (ICCS)</a>. Homicides may also be called “intentional homicides” or included as a line item under “Crimes against person.”</p> <p>(8.2) Crime type can be specific, such as assault, rape, burglary, kidnapping, etc., or be broad categories such as “crimes against person, property, and other.”</p> <p>(8.2) Disaggregation by victim’s characteristics (sex and age) is only relevant to crimes against persons.</p> <p>(8.3) Disaggregation by sentencing status typically includes, sentenced or unsentenced. Other similar classifications are accepted.</p>	<p>(8.3) First administrative divisions are defined leniently, as appropriate.</p> <p>Second administrative level data for this indicator are not required and category level scores will not be penalized.</p>

## Commonly Used Sources

Commonly used sources for crime statistics include: Annual Statistical Yearbook, victimization surveys, and data portals.

## Methodological Changes

**Scoring First Coverage Element:** Scoring guidelines to receive a full and half point has changed. In ODIN 2018/19, the guidelines for receiving a full point require: two indicators with two disaggregations each. Each indicator must be disaggregated by sex (of victim, where relevant). (8.2) must be disaggregated by crime type. It is easier to score a full point this year.

**Geographic disaggregation for indicator 8.3:** See notes above.

### Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (8.1) Homicide rate/count, the corresponding SDG indicator includes:**

Indicator 16.1.1: Number of victims of intentional homicide per 100,000 population, by sex and age

**For (8.2) Crime rate/count, the corresponding SDG indicator includes:**

11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months

16.1.3 Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months

16.2.2 Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation

16.10.1 Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months

**For (8.3) Prison population/count, the corresponding SDG indicator includes:**

16.3.2 Unsentenced detainees as a proportion of overall prison population

# Poverty & Income Statistics

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Poverty &amp; Income Statistics</b>	(9.1) Poverty rate;  (9.2) Distribution of income by deciles or Gini coefficient.	(9.1, 9.2) None	<u>To receive full point:</u> Must have two indicators.  <u>To receive half point:</u> Must have one indicator.	(9.1) Figures on at-risk poverty, low income rates, or similar are accepted. Data based on international or national poverty lines are accepted.  (9.2) Distribution can be disaggregated by more than 10 categories as well.	(9.2) First and second administrative level data for this indicator are not required and category level scores will not be penalized.

## Commonly Used Sources

Commonly used sources for poverty and income statistics include: Annual Statistical Yearbooks, economic surveys, welfare indicator surveys, living condition surveys, household income and expenditure surveys, or data portals.

## Methodological Changes

**Definition of Indicator 9.2:** Indicator (9.2) is revised to distribution of income or Gini coefficient. In previous ODIN assessments, Gini coefficients were not accepted.

**Geographic disaggregation for indicator 9.2:** See notes above.

## Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

### For (9.1) Poverty rate, the corresponding SDG indicator includes:

1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)

1.2.1 Proportion of population living below the national poverty line, by sex and age

1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

# ECONOMIC STATISTICS GUIDELINES

## National Accounts

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>National Accounts</b>	(10.1) GDP (production approach) or gross value added;  (10.2) GDP (expenditure approach).	(10.1) Industrial classification;  (10.2) Major expenditure categories.	<u>To receive full point:</u> Must have all indicators disaggregated as follows: (10.1) by industrial classification and (10.2) by major expenditure categories. Any data in the most recent 5 years (2013 onward) must be presented on at least quarterly basis to receive a full point.  <u>To receive half point:</u> Must have at least one indicator with one disaggregation. Data can be presented on a monthly, quarterly, or annual basis.	(10.1) Industrial classes include agriculture, mining, manufacturing, etc.  (10.2) Major expenditure categories include final consumption expenditure, government expenditure on goods and services, gross fixed capital formation, etc.	(10.1, 10.2) First administrative divisions are defined leniently, as appropriate.  GDP at the first administrative level does not need to have categorical disaggregation to be recorded. Regional GDP per capita is accepted.  Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.

### Commonly Used Sources

Commonly used sources for national accounts statistics include: Annual Statistical Yearbooks, economic surveys, national accounts reports, and data portals. Data may also be available on a country's Ministry of Finance website.

### Methodological Changes

There are no changes in the indicators or their disaggregations between this year and last year, however some of the disaggregations have changed.

**Disaggregation revision to 10.1 and 10.2:** In the previous ODIN, the disaggregation for constant and current prices were available for both indicators. This year, the constant and current prices disaggregations are removed. Some datasets used last year may no longer qualify.

**Geographic disaggregation for indicators 10.1 and 10.2:** See notes above.

# Labor Statistics

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets
<b>Labor Statistics</b>	(11.1) Employment rate;  (11.2) Employment distribution;  (11.3) Unemployment rate.	(11.1) Sex; age;  (11.2) Industry; Occupation type; Sex;  (11.3) Sex; age.	<u>To receive full point:</u> Must have: (11.1) by sex, or (11.2) by sex and one other disaggregation, and (11.3) by sex.  <u>To receive half point:</u> Must have at one indicator with one disaggregation.	(11.1, 11.2) Active and idle figures are not accepted as employment or unemployment. Figures must be rates. Employment-to-population ratios are accepted.  (11.1, 11.2) Data on only youth unemployment or employment are not accepted. Data disaggregated by age must include all the population age 15 or older.  (11.1, 11.2). Age groups count as age disaggregation.  (11.2) Multiple industries or occupations must be present to count as industry or occupation disaggregation.

## Commonly Used Sources

Commonly used sources for labor statistics include: Annual Statistical Yearbooks, economic surveys, welfare indicator surveys, and labor force surveys. Data may also be available on a country's Ministry of Labor website.

## Methodological Changes

This data category now includes a new indicator: (11.2) employment distribution by industry, occupation type, or sex.

**Disaggregation revision to 11.1:** In the previous ODIN, the disaggregations industry and occupation type were available for employment rate. Now the only disaggregations are sex and age. Some datasets used last year may no longer qualify.

**Scoring First Coverage Element:** Because of the addition of a new indicator that can substitute for employment rate, scores may need to be adjusted.

## Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (11.2) Unemployment rate, the corresponding SDG indicator includes:**

8.5.2 Unemployment rate, by sex, age and persons with disabilities

## Price Indexes

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Price Indexes</b>	(12.1) Consumer price index (CPI);  (12.2) Producers price index (PPI).	(12.1, 12.2) None	<u>To receive full point:</u> Must have all indicators. Any data in the most recent 5 years (2013 onward) must be presented on at least quarterly basis to receive a full point.  <u>To receive half point:</u> Must have at least one indicator. Data can be presented on a monthly, quarterly, or annual basis.	(12.2) This indicator may also be called Output Price Index. PPI disaggregated by industry or commodity qualifies only if an aggregate for all industries/commodities is also presented. Industrial PPI is not accepted as it does not include construction and services.	(12.1) If only CPI for the capital city is available, this is accepted as "national level".  (12.1, 12.2) First administrative divisions are defined leniently, as is appropriate.  Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.

### Commonly Used Sources

Commonly used sources for price statistics include: reports and bulletins on consumer price index or producer price index. Data may also be available on a country's ministry of finance website, though the NSO must provide a link to the ministry website.

### Methodological Changes

**Geographic disaggregation for data category:** See notes above.

# Government Finance

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<p><b>Government Finance</b></p>	<p>(13.1) Actual revenues;</p> <p>(13.2) Actual expenditures.</p>	<p>(13.1) Revenue source;</p> <p>(13.2) Administrative classification; economic classification; functional classification.</p>	<p><u>To receive full point:</u> Must have all indicators with one disaggregation each.</p> <p><u>To receive half point:</u> Must have one indicator with one disaggregation.</p>	<p>(13.1) Revenue sources may include: taxes, social contributions, grant, other. The division of oil/non-oil revenues or tax/non-tax revenues is not sufficient unless further disaggregation under those items is also available. Other revenue sources will be accepted on a case by case basic.</p> <p>(13.2) Administrative classes may include specific ministries, departments, etc.</p> <p>Economic classes are typically presented as: expense, compensation of employees, use of goods and services, consumption of fixed capital, interest, subsidies, grant, social benefits, etc.</p> <p>Functional classes are typically presented as: general public services, defense, public order and safety, economic affairs, environmental protection, health, education, etc.</p> <p>(13.1-13.2) Budgeted figures accepted for 2017 only; actual figures must be shown for prior years.</p>	<p>(13.1, 13.2) First administrative divisions are defined leniently, as appropriate.</p> <p>Data at the first administrative level does not need to have categorical disaggregation to be recorded. For indicator 13.2, allocations from the central government to first administrative divisions is accepted (either as an absolute figure or percentage of total).</p> <p>Additionally, second administrative level data for this category are not required and category level scores will not be penalized.</p>

## Commonly Used Sources

Commonly used sources for government finance statistics include: Annual Statistical Yearbooks, annual economic surveys, public finance reports, treasury revenue reports, year-end budget reports, or budget proposals (for current year data). Data may also be available on a country's Ministry of Finance website.

## Methodological Changes

**Geographic disaggregation for data category:** See notes above.

## Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

### **For (13.2) Actual expenditures, the corresponding SDG indicator includes:**

16.6.1 Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar)

# Money and Banking

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Money &amp; Banking</b>	(14.1) Money supply;  (14.2) Interest rates.	(14.1) M1; M2; M3;  (14.2) Rate type.	<u>To receive full point:</u> Must have all indicators with one disaggregation. Must have at least three rates.  <u>To receive half point:</u> Must have one disaggregated indicator. If indicator is (14.2), only one rate is needed.	(14.1) M1 includes cash (banknotes and coins), plus overnight deposits. M2 (also called quasi money), includes M1, deposits with an agreed maturity of up to two years and deposits redeemable at notice of up to three months. M3 is M2, plus repurchase agreements, money market fund shares/units and debt securities up to two years.  (14.2) Rate types can include short or long term government security rates (treasury bills, bond yields), policy orientated interest rates (central bank lending or discount rates), money market, or interbank rates.	(14.1, 14.2) First and second administrative level data for this indicator are not required and category level scores will not be penalized.

## Commonly Used Sources

Commonly used sources for price statistics include: Annual Statistical Yearbooks, reports on monetary and credit statistics, banking system reports, or reports on financial statistics. Data may also be available on a country's Ministry of Finance or Central Bank website.

## Methodological Changes

There are no changes in the indicators or their disaggregations between this year and last year

## International Trade

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>International trade</b>	(15.1) Merchandise exports;  (15.2) Merchandise imports.	(15.1, 15.2) Major product categories (agricultural products, fuels, mining, manufactures, etc.).	<u>To receive full point:</u> Must have (15.1) and (15.2) imports by major product categories. Any data in the most recent 5 years (2013 onward) must be presented on at least quarterly basis to receive a full point.  <u>To receive half point:</u> Must have one indicator with one disaggregation. Data can be presented on a monthly, quarterly, or annual basis.	(15.1, 15.2) Product categories may be called commodity groups.  (15.1-15.2) Information available on a country's Balance of Payments is not accepted for any indicator in this category.	(15.1, 15.2) First and second administrative level data for this indicator are not required and category level scores will not be penalized.

### Commonly Used Sources

Commonly used sources for price statistics would include: Annual Statistical Yearbooks and reports on external trade. Data may also be available on a country's Ministry of Finance website.

### Methodological Changes

There are no changes in the indicators or their disaggregations between this year and last year.

## Balance of Payments

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Balance of payments</b>	(16.1) Current account;  (16.2) Capital and Financial account.	(16.1) Goods and services, income, and current transfers (or secondary income);  (16.2) Direct investment or international investment position.	<u>To receive full point:</u> Must have (16.1) and (16.2) with one disaggregation each.  <u>To receive half point:</u> Must have (16.1) or (16.2) with one disaggregation.	(16.1, 16.2) Disaggregation of current and capital and financial accounts are based on the <a href="#">IMF's Balance of Payments guide</a> .  (16.1) Disaggregation must include all three line items.	(16.1, 16.2) First and second administrative level data for this indicator are not required and category level scores will not be penalized.

### Commonly Used Sources

Commonly used sources for balance of payments include: Annual Statistical Yearbooks and Balance of Payments reports. Data may also be available on a country's Ministry of Finance website.

### Methodological Changes

There are no changes in the indicators or their disaggregations between this year and last year.

# ENVIRONMENTAL STATISTICS GUIDELINES

## Land Use

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Land Use</b>	<p>(17.1) Data on land use or land cover.</p> <p>(17.2) Data on protected lands.</p>	<p>(17.1) Urban and rural; agricultural use (crop type); environmental zones.</p> <p>(17.2) None</p>	<p><u>To receive full point:</u> Must have (17.1) with two disaggregations, as well as (17.2). Land use data with one disaggregation and land cover data with one disaggregation is accepted.</p> <p><u>To receive half point:</u> Must have one indicator with one disaggregation.</p>	<p>(17.1, 17.2) Data should can presented in physical units (hectares, sq. km, etc.) or percentage of total land.</p> <p>(17.1) Environmental zones refer to classifications as defined in the <a href="#">UN's Guidelines of International Classifications for Agricultural Statistics</a>.</p> <p>Environmental zones for land use may include: agriculture, forestry, aquaculture, etc.</p> <p>Environmental zones for land cover may include: crops, trees, mangroves, grassland, etc.</p> <p>(17.2) Refer to <a href="#">IUCN's</a> information on protected areas for more information.</p> <p>Data may be on "protected areas" if terrestrial areas are separate from other area types. Data on protected areas may include: national parks, wildlife refuge, etc.</p>	<p>(17.2) First administrative divisions are defined leniently, as appropriate.</p> <p>Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.</p>

### Commonly Used Sources

Commonly used sources for land use statistics include: Annual Statistical Yearbooks and yearbooks/abstracts on agricultural and environmental statistics. Data may also be available on a country's Ministry of Agriculture website.

## Methodological Changes

**Categorical disaggregation for indicator 17.1:** Urban and rural disaggregation has been added.

**Geographic disaggregation for indicator 17.2:** See notes above.

## Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (17.2) Data on protected lands, the corresponding SDG indicator includes:**

15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type

15.4.1 Coverage by protected areas of important sites for mountain biodiversity

## Resource Use

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Resource Use</b>	<p>(18.1) Data on fishery harvests;</p> <p>(18.2) Data on timber harvests or deforestation;</p> <p>(18.3) Data on major mining or extractive activities;</p> <p>(18.4) Water supply and/ or consumption.</p>	<p>(18.1, 18.2) None</p> <p>(18.3) Type of mining activity;</p> <p>(18.4) None</p>	<p><u>To receive full point</u>: ☑Must have three indicators, disaggregated</p> <p><u>To receive half point</u>: ☑Must have two indicators, disaggregated</p>	<p>(18.1-18.4) Data should be presented in physical units or value.</p> <p>(18.1, 18.2, 18.3) Contribution to GDP for given resources are not accepted.</p> <p>(18.1) Data may also be on fishery landings and catches.</p> <p>(18.2) Land use or cover data with a disaggregation category of forestry is not accepted, nor is data on areas affected by forest fires as this is only one factor contributing to deforestation.</p> <p>(18.3) Type of mining activities may include gas, petroleum, coal, etc.</p>	<p>(18.1-18.4) First administrative divisions are defined leniently, as appropriate.</p> <p>Additionally, second administrative level data for this indicator are not required and category level scores will not be penalized.</p>

### Commonly Used Sources

Commonly used sources for resource use statistics include: Annual Statistical Yearbooks, environmental yearbooks, reports on forest resources or mining operations. Data can be found on the websites of the Ministry of Fisheries and Aquaculture, Environment, Industry, or Energy.

### Methodological Changes

**Geographic disaggregation for category:** See notes above.

## Energy Use

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Energy Use</b>	(19.1) Consumption of energy (must specify type)	(19.1) Energy type; end-use sector; industrial sector.	<p><u>To receive full point:</u> Must have (19.1) by energy type and one other disaggregation. Three energy types must be present.</p> <p><u>To receive half point:</u> Must have (19.1) by energy type and one other disaggregation. Two energy types must be present.</p>	<p>(19.1) Data should be in physical units, such as kilowatt hours of electricity or tons of oil equivalent for fossil fuels.</p> <p>Energy types include electricity, natural gas, renewables, coal/lignite, oil.</p> <p>End-use sectors may include categories: construction, agriculture, transport, industry, residential, etc. Multiple end-use or industrial sectors must be presented.</p>	(19.1) Second administrative level data for this indicator are not required and category level scores will not be penalized.

### Commonly Used Sources

Commonly used sources for energy statistics include: Annual Statistical Yearbooks or reports on energy statistics. Data may also be available on a country's Ministry of Energy or Environment website.

### Methodological Changes

There are no changes in the indicator, however, there are some disaggregation changes:

**Disaggregation, "Energy Type":** In ODIN 2017, we required that at least three energy types must be present, however, the "energy type" disaggregation was not available at that time. The addition of this indicator will not affect the first element scores, as multiple energy types must be already present.

**Geographic disaggregation for category:** See notes above.

## Pollution

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets	Geographic Disaggregation
<b>Pollution</b>	(20.1) CO2 or other greenhouse gas (GHG) emissions;  (20.2) Emissions of air or water pollutants.	(20.1,20.2) None	<u>To receive full point:</u> Must have all indicators. CO2 must be specified.  <u>To receive half point:</u> Must have at least one indicator.	(20.1, 20.2) Data should be in physical units. GHGs and pollutants should be specifically named.  Production and consumption based accounting of emissions are both accepted.  (20.1) Data on ozone depleting substances are accepted for this indicator.  (20.2) Common air pollutants include: PM10, PM2.5, O3, NO2, CO, and SO2. .	(20.1, 20.2) First administrative divisions are defined leniently, as appropriate.  Second administrative level data for this indicator are not required and category level scores will not be penalized.

### Commonly Used Sources

Commonly used sources for energy statistics include: Annual Statistical Yearbooks, air quality reports, air emissions accounts, air quality reports, or environmental yearbooks. Data may also be available on a country's Ministry of Environment, Energy, or Industry.

### Methodological Changes

**Geographic disaggregation for data category:** See notes above.

### Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (20.1) CO2 or other greenhouse gas (GHG) emissions, the corresponding SDG indicator includes:**

9.4.1 CO2 emission per unit of value added

**For (20.2) Emissions of air or water pollutants (must specify type), the corresponding SDG indicator includes:**

11.6.2 Annual mean levels of fine particulate matter) in cities (population weighted) and 14.1.1 Index of coastal eutrophication and floating plastic debris density

## Built Environment

Data Category	Representative Indicators	Categorical Disaggregation	Coverage Element 1 Scoring Guidelines	Notes on Datasets
<b>Built Environment</b>	<p>(21.1) Proportion of households with access to water;</p> <p>(21.2) Proportion of households with access to sanitation;</p> <p>(21.3) Housing quality indicators.</p>	<p>(21.1) Water supply type;</p> <p>(21.2) Sanitation facility type;</p> <p>(21.3) Number of houses by type; number of rooms; Houses by construction material; Houses by piping type; other.</p>	<p><u>To receive full point:</u> Must have (21.1) and (21.2); as well as (21.3) with one disaggregation.</p> <p><u>To receive half point:</u> Must have either (21.1) and (21.2), or (21.3) with at least one disaggregation.</p>	<p>(21.1) Water supply type include pipe, well, open streams, etc.</p> <p>Data on access to clean/drinking water or improved water sources is accepted.</p> <p>(21.2) Sanitation facility types include, indoor, outdoor, protected, pits, etc.</p> <p>Data on access to improved sanitation is accepted.</p> <p>(21.3) This indicator is defined broadly and is analyzed on a case by case basis, so long as the indicator showcases housing quality.</p>

### Commonly Used Sources

Commonly used sources for energy statistics include: Annual Statistical Yearbooks, household surveys, or living conditions surveys.

### Methodological Changes

There are no changes in the indicators or their disaggregations between this year and last year.

### Corresponding SDG Indicators\*

\*Indicators may be used in ODIN if disaggregated as necessary.

**For (21.1) Proportion of people with access to water, the corresponding SDG indicator includes:**

6.1.1 Proportion of population using safely managed drinking water services

**For (21.2) Proportion of people with access to sanitation, the corresponding SDG indicator includes:**

6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water

**For (21.3) Housing quality indicators, the corresponding SDG indicator includes:**

1.4.1 Proportion of population living in households with access to basic services

7.1.1 Proportion of population with access to electricity

## COVERAGE ELEMENTS 2-5 GUIDELINES

### Data Available for the Last 5 Years

Coverage element 2 measures whether data are available in a data category over the last five years. Scores for this element cannot be greater than the score for coverage element 1. Scores are given by data category, not indicator. For the categories National Accounts, Price Indexes, and International Trade, if data are presented on a quarterly basis, 3 out of 4 quarters for a particular year must be available to award credit. If data are presented on a monthly basis, 7 out of 12 months for a particular year must be present to award credit. Countries may use calendar or fiscal years to present data. Common fiscal years include 1 July – 30 June, 1 April-31 March. Less common fiscal years are used in Afghanistan, Nepal, Iran, and the US.

Scoring Options	Notes
1 point if all published data are available for 3 of the last 5 years.	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data. However, a full point cannot be awarded unless a full point was awarded for coverage element 1. The three years must occur within 2013-2017 (or 2012/2013-2016/2017). If the indicator shows data for a non-calendar year (i.e. 2012/2013), this should be counted as one year. Overlapping years (such as 2013 and 2013/14 for a single indicator) should not be double counted.
0.5 points if some published data are available for 1-2 of the last 5 years.	“Some published data” is defined as any subset of indicators, disaggregations, or years published by a country. The 1-2 years must occur within 2013-2017 (or 2012/2013-2016/2017). If the indicator shows data for a non-calendar year (i.e. 2013/2014), this should be counted as one year.

#### Methodological Changes

There are no changes in the definitions of these concepts between this year and last year.

## Data Available for the Last 10 Years

Coverage element 2 measures whether data are available in a data category over the last ten years. Scores for this element cannot be greater than the score for coverage element 1. Scores are given by data category, not indicator. For the categories National Accounts, Price Indexes, and International Trade, if data are presented on a quarterly basis, 3 out of 4 quarters for a particular year must be available to award credit. If data are presented on a monthly basis, 7 out of 12 months for a particular year must be present to award credit. Countries may use calendar or fiscal years to present data. Common fiscal years include 1 July – 30 June, 1 April-31 March. Less common fiscal years are used in Afghanistan, Nepal, Iran, and the US.

Scoring Options	Notes
1 point if all published data are available for 6 of the last 10 years.	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data. However, a full point cannot be awarded unless a full point was awarded for coverage element 1. The six years must occur within 2008-2017 (or 2007/2008-2016/2017). If the indicator shows data for a non-calendar year (i.e. 2013/2014), this should be counted as one year. Overlapping years (2013 and 2013/14) should not be double counted.
0.5 points if some published data are available for 3-5 of the last 5 years.	“Some published data” is defined as any subset of indicators, disaggregations, or years published by a country. The 3-5 years must occur within 2007-2016 (or 2007/2008-2016/2017). If the indicator shows data for a non-calendar year (i.e. 2013/2014), this should be counted as one year. Overlapping years (2013 and 2013/14) should not be double counted.
0 points if all published data are unavailable for 2 or fewer of the last 10 years.	A 0 is only given if no data in the last ten years is available for any indicator within a data category, or if only monthly/quarterly data exists, but not for a majority of any months/quarters in the last five years.

### Methodological Changes

There are no changes in the definitions of these concepts between this year and last year.

## First Administrative Level

Coverage element 4 measures whether data are available at the first administrative level. Scores for this element cannot be greater than the score for coverage element 1. Scores are given by data category, not indicator. Additionally, data disaggregated at the first administrative level is only scored if national level data also exists for that indicator. Often, national data are included in the same file as subnational data as an aggregate figure. To identify the first administrative levels, ODIN largely draws on the ISO 3166-2 standard. In many countries, first administrative levels refer to governorates, regions, or provinces. However, this is not always the case. For instance, in China, four municipalities are included in the first administrative level (Beijing, Chongqing, Shanghai, and Tianjin).

Money & Banking, International Trade, and Balance of Payments are not scored for this element. For various indicators, lenient interpretations are used for first administrative divisions.

Scoring Options	Notes
1 point if all published data in a data category are available at first administrative level.	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data. However, a full point cannot be awarded unless a full point was awarded for coverage element 1.
0.5 points if some published data in a data category are available at first administrative level.	“Some published data” is defined as any subset of indicators, disaggregations, or years published by a country.
0 points if no data are available at this level	A 0 is only given if no data in a data category is available at this level.

### Methodological Changes

Several indicators now use more lenient interpretations for first administrative divisions.

## Second Administrative Level

Coverage element 5 measures whether data are available at the second administrative level. Scores for this element cannot be greater than the score for coverage element 1. Scores are given by data category, not indicator. Additionally, data disaggregated at the second administrative level are only scored if national level data also exists for that indicator. Often, national data are included in the same file as subnational data as aggregate figures. No official list exists for the second administrative level classifications. If geographical disaggregation exists that does not qualify as first administrative level, assume that the data are disaggregated to the second administrative level as long as the classification appears to be a further divisions of the first administrative level. It is possible to score points on this element even if no data are disaggregated at the first administrative level.

Money & Banking, International Trade, Balance of Payments, National Accounts, Government Finance ,Pollution, Energy Use, Price Indexes, and Resource Use are not scored for this element. For various indicators within categories, second administrative level data is not required as well.

Scoring Options	Notes
1 point if all data in a data category are available at second administrative level.	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data. However, a full point cannot be awarded unless a full point was awarded for coverage element 1.
0.5 points if some published data are available at second administrative level.	Some published data” is defined as any subset of indicators, disaggregations, or years published by a country.
0 points if no data are available at this level.	A 0 is only given if no data in a data category is available at this level.

### Methodological Changes

Pollution, Energy Use, Price Indexes and Resource Use are now excluded from scoring for this element.

# OPENNESS ELEMENTS 1-5 GUIDELINES

## Machine Readability

Openness element 1 measures whether data are available in a machine readable format such as XLS, XLSX, CSV, and JSON. Machine-readable file formats allow users to easily process data using a computer. When data are made available in formats that are not machine readable, users cannot easily access and modify the data, which severely restricts the scope of the data's use. In many cases PDF versions of datasets within reports can be useful to users, as the text in conjunction with the tables gives context and explanation to the figures which helps less technical users understand the data. Because of this, ODIN assessments do not penalize countries for making datasets available in PDF or other non-machine readable formats, unless these formats are the only option for exporting data. Scores are not penalized for having identical datasets in both machine readable and non-readable formats. Compression formats do not affect machine readability scores, only non-proprietary scores (see next page). Scores are given by data category, not indicator.

Scoring Options	Notes
1 point if all published data are available in a machine readable format (such as XLS, XLSX, CSV, Stata, SAS, SPSS, JSON and so forth).	"All published data" is defined as every indicator, disaggregation, and year published by a country, not all possible data. CDF, RDF, XML, and TXT files are also classified as machine readable. PDFs, picture files, and HTML formats are not machine readable.
0.5 points if some published data are available in machine-readable format.	"Some published data" is defined as any subset of indicators, disaggregations, or years published by a country. If published data are available in both a machine readable format and in a non-machine readable format, a full point should be awarded for machine readability. If, however, the data in the machine readable format is less complete, a half point should be awarded.
0 points if all published data are not available in machine-readable format.	A 0 is only given if no data are available in a machine readable format.

## Methodological Changes

There are no changes in the definitions of these concepts between this year and last year.

## Non-proprietary Format

For the elements of data openness, scoring is calculated independent of the data coverage.

If data files are compressed in RAR format (which is proprietary), data for that indicator should be considered proprietary even if the enclosing files are in a non-proprietary format. Files compressed in ZIP format are not affected.

Scoring Options	Notes
1 point if all published data are available in non-proprietary format (such as XLSX, DOCX, CSV, XML, HTML, and JSON).	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data. TXT files are also treated as non-proprietary. XLS, Stata, SAS, SPSS, DOC and PPT files are proprietary
0.5 points if some published data are available in non-proprietary format.	“Some published data” is defined as any subset of indicators, disaggregations, or years published by a country. If published data are available in both a proprietary format and in a non-proprietary format, a full point should be awarded. If, however, the data in the non-proprietary format is less complete, a half point should be awarded.
0 points if no data are available in a non-proprietary format.	A 0 is only given if no data in a data category is available in this format or if all data files are compressed in RAR format. ZIP compression is non-proprietary and does not affect a country’s score.

### Methodological Changes

There are no changes in the definitions of these concepts between this year and last year.

## Download Options

Openness element 3 measures whether data are available with three different download options: bulk download, API, and user-select options.

A bulk download is defined at the indicator level as: The ability to download all data recorded in ODIN for a particular indicator (all years, disaggregations, and subnational data) in one file, or multiple files that can be downloaded simultaneously. Bulk downloads are a key component of the Open Definition, which requires data to be “provided as a whole . . . and downloadable via the internet.”

User-selectable download options are defined as: Users must be able to select an indicator and at least one other dimension to create a download or table. These dimensions could include time periods, geographic disaggregations, or other recommended disaggregations. An option to choose the file export format is not enough.

API stands for Application Programming Interface. Ideally, APIs should be clearly displayed on the website. ODIN assumes APIs are available for the NSOs entire data collection used in ODIN, unless clearly stated. ODIN assessors do not register for use or test API functionality. For more information on APIs, see this [guide](#). Scores are given by data category, not indicator.

Scoring Options	Notes
1 point if all published data has a bulk download option and an API or user-selectable download option.	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data.
0.5 points if some published data has an API, bulk download, or user-selectable download options.	“Some published data” is defined as any subset of indicators, disaggregations, or years published by a country.
0 points if no published data have any download options	

### Methodological Changes

There are no changes in the definitions of these concepts between this year and last year.

## Metadata Availability

Openness element 4 measures whether metadata are made available. Scores are given by data category, not indicator. Metadata are defined at the indicator level as information about how the data are defined/calculated and collected. ODIN classifies metadata into three categories: (1) Not Available, (2) Incomplete, and (3) Complete. The following must be available to classify metadata as complete:

- Definition of the indicator, or definition of key terms used in the indicator description (as applicable), or how the indicator was calculated.
- Publication (date of upload), compilation date (date on front of report is not sufficient), or date dataset was last updated.
- Name of data source (what agency collected the data).

If the metadata only have one or two of the above elements, they are scored as incomplete

Scoring Options	Notes
1 point if all published data have complete metadata.	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data. Metadata may be included in the same file as the data or it can be included elsewhere on the website (this may happen if the data are in a regularly published report, survey, or census).
0.5 points if some published data have complete or incomplete metadata, or all published data have incomplete metadata.	“Some published data” is defined as any subset of indicators, disaggregations, or years published by a country.
0 points if all published data have no metadata.	

### Methodological Changes

There are no changes in the definitions of these concepts between this year and last year.

### Commonly Used Sources

Sometimes, metadata for particular indicators are available on publications, such as a compendium of statistics. Many NSOs also have webpages on methodology or definitions of indicators.

## Terms of Use (TOU)

Openness element 5 measures whether data are available with an open terms of use. Generally, terms of use (TOU) will apply to an entire website or data portal (unless otherwise specified). In these cases, all data found on the same website and/or portal will receive the same score. If a portal is located on the same domain as the NSO website, the terms of use on the NSO site will apply. If the data are located on a portal or website on a different domain, another terms of use will need to be present. For a policy/ license to be accepted as a terms of use, it must clearly refer to the data found on the website. Terms of use that refer to nondata content (such as pictures, logos, etc.) of the website are not considered. A copyright symbol at the bottom of the page is not sufficient. A sentence indicating a recommended citation format is not sufficient.

Terms of use are classified the following ways: (1) Not Available, (2) Restrictive, (3) Semi-Restrictive, and (4) Open.

If the TOU contains one or more restrictive clauses, it receives 0 points and is classified as “restrictive.” Restrictive clauses include:

**Noncommercial provisions:** These clauses forbid use for commercial purposes. As explained by the Open Data Institute, “A noncommercial provision is problematic primarily because of a lack of clarity around what constitutes ‘commercial’ usage.” In some cases, a limitation to noncommercial use can be interpreted as allowing personal use only, as happened in a 2014 German court case.

**Requires prior permission:** These clauses require users to seek permission, in any format, before using data.

**Registration requirements:** These clauses require users to register or provide personal information about themselves in order to accept the terms of use conditions.

If the TOU contains one “semi-restrictive” clauses, it receives 0.5 points. If the terms of use includes two or more of these clauses, it is classified as “Restrictive” and receives 0 points. Semi-restrictive clauses include:

**Onerous attribution:** These clauses require an onerous attribution, such as requiring users to publish large amounts of metadata or other technical notes when using the data.

**Prohibits misleading use:** Any language that prohibits the use of data in a “misleading” or similar manner is classified as semi-restrictive because it is unclear and may be enforced arbitrarily to discriminate against users.

**Vague language:** Any TOU that doesn’t meet the criteria of fully open, but also does not include any restrictive or semi-restrictive clauses, is classified as “semi-restrictive” and receive 0.5 points.

A TOU is considered open and receives a full point if it states that data are licensed for free use and reuse for commercial and noncommercial use with, at most, an obligation to attribute data to original source.

Some important notes:

- CC BY (any version), CC BY-SA (any version), and CC0 licenses receive a full point.
- If data are identified as in the “public domain” without any semi-restrictive or restrictive clauses, a full point is awarded.
- If data can be used “freely,” that is interpreted as “without restrictions” and would receive a full point if there are no semi-restrictive or restrictive clauses. This is different than free of charge.
- Clauses that require the user to state that the data were updated or modified are generally not seen as restrictive and do not affect the TOU score, but this is determined on a case by case basis.

Scoring Options	Notes
1 point if all published data have a terms of use classified as open.	“All published data” is defined as every indicator, disaggregation, and year published by a country, not all possible data. See the previous page for the criteria for an open terms of use
0.5 points if some published data have a terms of use classified as open, or if some published data has a terms of use classified as semi-restrictive or if all published data has a terms of use classified as semi-restrictive.	“Some published data” is defined as any subset of indicators, disaggregations, or years published by a country. See the previous page for the criteria for semi-restrictive terms of use.
0 points If no terms of use are found or if all published data have a terms of use classified as restrictive.	See the previous page for the criteria for restrictive terms of use

### Methodological Changes

The classification of TOUs has changed this year slightly.