



**An
Phríomh-Oifig
Staidrimh**

Central
Statistics
Office

Environmental Indicators Ireland – Global Context and Climate 2025



Single Integrated Metadata Structure (SIMS) Report

For

Environmental Indicators Ireland 2025 -Global Context and Climate

This documentation applies to the reporting period:

2025

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1. Introduction

The Environmental Indicators Ireland Report for Ireland was first published in 2012 originally on a biennial basis and from 2018 on an annual basis. This is the eleventh edition of Environmental Indicators Ireland. A total of 27 indicators covering four domains have been selected for this publication. The indicators are updated from the 2024 report to show the most recent data available. Many of the indicators are presented in a time-series format for Ireland, while the international context is shown by comparing Ireland with other countries and world regions for the latest year for which data are available.

The environment area is wide-ranging and the four domains cover the global context, greenhouse gases and climate change, water and land use..

The CSO wishes to thank; Department of Agriculture, Food and the Marine; Department of Transport; Environmental Protection Agency; Eurostat; Met Éireann; Our World in Data; the UK's Met Office Hadley Centre; and United Nations for providing data and technical advice on the most appropriate indicators for Ireland.

2. Contact

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3. Metadata Update

3.1. Metadata last certified

13/11/2025

3.2. Metadata last posted

13/11/2025

3.3. Metadata last update

13/11/2025

4. Statistical Presentation

4.1. Data Description

The Environmental Indicators Ireland Report is a wide-ranging Report and consists of 32 Indicators across four domains: the Global Context, Greenhouse Gases and Climate Change, Water and Land Use.

Indicators are derived from administrative data rather than survey data. Many indicators refer to statistics compiled by the Environment and Climate Division of the CSO. National data are given in time series format going back ideally to the 1990's (and before in some cases) in order to show long-term trends.

International data are typically for one year and show how Ireland's environmental performance compares with the World or other EU Member States. The methodology used in the compilation of the Environmental Indicator Report is outlined in more detail in the associated Background Notes on the CSO website.

4.2. Classification System



Indicators	Topic	Classification
Indicator 2.2	EU: greenhouse gas emissions	EU: Country breakdown
Indicator 2.3	2.3 EU: Greenhouse gas emissions per capita	EU: Country breakdown
Indicator 2.5	Ireland Greenhouse gases by sector	EU: Country breakdown
Indicator 2.6	Ireland: Greenhouse gas emissions by NACE Sector	NACE REV 2 classification of economic activities
Indicator 4.2	EU: Forest cover	EU: Country breakdown
Indicator 4.4	EU: organic agricultural land	EU: Country breakdown
Indicator 4.6	EU: Fertiliser sales	EU: Country Breakdown
Indicator 4.8	EU: Cattle, sheep and pigs	EU: Country breakdown

4.3. Sector Coverage

The sectors covered consist of a special aggregation of NACE classifications into:

- Industry
- Agriculture, forestry and fishing
- Services
- Households

4.4. Statistical Concepts and definitions

A full definition and description of all statistical variables disseminated can be found in the background notes that accompany the publication. These are publicly accessible from:

<https://www.cso.ie/en/methods/surveybackgroundnotes/environmentalindicatorsireland/>

4.5. Statistical Unit

The reporting units vary by indicator. There is no common standard applicable across different indicators.

4.6. Statistical Population

World, world regions, EU and Irish populations.

4.7. Reference Area

State, European Union Member States, other countries and world regions.

4.8. Time Coverage

Every two years from 2012 to 2018 and annually from 2019 to 2024. Every six months from 2025

4.9. Base period

1990 is the base period for Indicator 4.2 EU: Greenhouse gas emissions.

The rest of the tables are not based on indices.

5. Unit of Measure

The following units of measure are used depending on the nature of the variables represented:



- Celsius (temperature)
- Tonnes (gas emissions, fertiliser sales etc.)
- Millimetres (rainfall)
- Mg/l (nitrates in groundwater)
- Hectares (land & forest)

6. Reference Period

2025

7. Institutional Mandate

7.1. Legal Acts and other agreements

Not applicable.

7.2. Data Sharing

Not applicable.

8. Confidentiality

8.1. Confidentiality – policy

All information supplied to the CSO is treated as strictly confidential. The Statistics Act, 1993 sets stringent confidentiality standards: Information collected may be used only for statistical purposes, and no details that might be related to an identifiable person or business undertaking may be divulged to any other government department or body.

These national statistical confidentiality provisions are reinforced by the following EU legislation: Council Regulation (EC) No 223/2009 on European statistics for data collected for EU statistical purposes.

Further details are outlined in the CSO's Code of Practice on Statistical Confidentiality.

For more information on the CSO confidentiality policy please visit:

<https://www.cso.ie/en/aboutus/lgdp/csodatapolicies/statisticalconfidentiality/>

8.2. Confidentiality – data treatment

The Environmental Indicators Ireland publication is a compilation of aggregated data already published by other means and agencies and therefore no confidentiality treatment is needed.

9. Release Policy

9.1. Release Calendar

The date of dissemination of all statistics released by CSO can be found in the Release Calendar published in <https://www.cso.ie>. This calendar is regularly updated.

9.2. Release calendar access

The release calendar can be accessed via the CSO website, www.cso.ie, or directly from this link:

<https://www.cso.ie/en/csolatestnews/releasecalendar/>



9.3. User access

In accordance with Principle 6 of the European Statistics Code of Practice all users of CSO statistics have equal access via the CSO website at the same time of 11 am. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements are revised so as to ensure impartiality.

The CSO recognises that in very limited circumstances a business need for pre-release access may be substantiated. Any form of pre-release access is a privilege and a strict CSO pre-release access policy is adhered to for these special requests. The full pre-release access policy can be accessed at

<https://www.cso.ie/en/aboutus/lqdp/csodatapolicies/csopolicyonpre-releaseaccess/>

The various results are published nationally in statistical release format as well as on the CSO website www.cso.ie

10. Frequency of Dissemination

Annual

11. Accessibility and clarity

11.1. News release

Not applicable.

11.2. Publications

<https://www.cso.ie/en/statistics/indicators/environmentalindicatorsireland/>

11.3. On-line database

Not available in PxStat.

11.3.1. AC 1. Data tables - consultations

Not applicable.

11.4. Micro-data Access

Not applicable.

11.5. Other

Not applicable.

11.5.1. AC2. Metadata consultations

Not calculated.

11.6. Documentation on Methodology



Basic information on the methodology applied to compile this publication can be found in the background notes.

<https://www.cso.ie/en/methods/surveybackgroundnotes/environmentalindicatorsireland/>

For further information on methodology please consult the main sources referenced in the publication itself.

11.6.1. AC3 – Metadata completeness – rate

Not calculated.

11.7. Quality Documentation

For further information on quality documentation please consult the main sources referenced in the publication itself.

12. Quality Management

12.1. Quality Assurance

Quality Management Framework

The CSO avails of an office wide Quality Management Framework (QMF). This framework allows all CSO processes and outputs to meet the required standard as set out in the European Statistics Code of Practice (ESCoP). The QMF foundations are based on establishing the UNECE's Generic Statistical Business Process Model (GSBPM) as the operating statistical production model to achieve a standardised approach to quality management. All and any changes implemented to CSO processes and outputs require adherence to the QMF.

12.2. Quality Assessment

Not applicable.

13. Relevance

13.1. User Needs

This report is carried out as a general national requirement rather than for a specific client such as Eurostat. Data users sometime make requests for figures to be provided or explained and we respond courteously and efficiently to these.

13.1.1. Main National Users

National users include the environment sector, the government, the media, educational institutions and the public.

13.1.2. Principal External Users:

International users include Eurostat.

13.2. User Satisfaction

Not calculated.

13.3. Data Completeness



Not applicable.

13.3.1. Data Completeness rate

Not applicable.

14. Accuracy and reliability

14.1. Overall accuracy

Figures can be regarded as quite accurate and reliable given the internal quality checks conducted by our data sources. As this is a compilation of information published by other sources, quality indicators have been marked “not applicable” in this report. Please refer to those for the accuracy sub-concepts and information listed below. A list of those sources of information can be found in the “Comment” section at the end of this report.

14.2. Sampling Error

Not applicable.

14.2.1. A1. Sampling error indicator

Not applicable.

14.3. Non-sampling Error

Not applicable.

14.3.1. Coverage error

Not applicable. No register was used to identify sample data. Statistics are based on administrative rather than survey data.

14.3.1.1. A2. Over coverage rate

Not applicable.

14.3.1.2. A3. Common units – proportion

Not applicable.

14.3.2. Measurement error

Not applicable.

14.3.3. Non-Response Error

Not applicable.

14.3.3.1. Unit non response rate

Not applicable.

14.3.3.2. Item non response rate

Not applicable.



14.3.4. Processing error

In order to address processing errors, the data are checked by more than one person, compared with other data sources and clarified by contacting data sources to confirm if errors have occurred in the process.

14.3.5. Model assumption error

Not applicable.

15. Timeliness and punctuality

15.1. Timeliness

The compilation of this information occurs once the data for the different indicators is made publicly available by the source departments and agencies publishing the original aggregates.

15.1.1. TP1. Time lag – First results

Provisional or preliminary results are not produced.

15.1.2. TP2. Time lag – Final results

The timeliness of the results varies for each indicator. Most of the indicators contain data for reference years 2023 with some of the indicators being up to date for 2024. The timeliness of the indicator depends directly on the availability of the data from the data provider.

15.2. Punctuality

Data are published on an bi-annual basis using the most up-to-date figures that are available. The first 2025 Report should be published by end October 2025. The second 2025 Report should be published by the end of December 2025.

15.2.1. TP3. Punctuality – Punctuality - delivery and publication

0 days. Publication delivered at national level on time according to the release calendar.

16. Comparability

16.1. Comparability – Geographical

Some minor timing issues may arise in comparing Irish and Eurostat data for instance with air pollutant information. There are also slight methodological issues between Irish and EU data on forest and fertiliser indicators.

16.1.1. CC1. Asymmetry for mirror flow statistics

Not applicable

16.2. Comparability over time

Some data published in the Report are revised over time (e.g. Greenhouse Gas emissions), but most figures show a high degree of comparability over time as they are calculated using the same methodology from year to year.

16.2.1. Length of Comparable Time series



The Environmental Indicators Report was initially published on a biennial basis, but once its sister report on Sustainable Development Indicators was discontinued it has been published on an annual basis. From 2025 it will be published on a bi-annual basis.

Published in 2012, 2014, 2016, 2018, 2019, 2020, 2021, 2022, 2023, 2024 and 2025.

16.3. Coherence – cross domain

Not applicable.

16.3.1. Coherence – Sub annual and annual statistics

Not applicable.

16.3.2. Coherence with National Accounts

Not applicable

16.4. Coherence – internal

The information provided in this output is based on figures published elsewhere in CSO and other government departments, therefore there are no coherence issues to report.

17. Cost and Burden

Since this publication is based on data already published elsewhere no additional cost burden has been placed on respondents.

18. Data Revision

18.1. Data Revision Policy

Revisions refer to changes made to published statistical data when the information used in its production has been updated or corrected. This information includes all data used in compiling the statistic e.g. respondent data, administrative data, weights and factors, methodology, classifications, definitions, modifications to survey questionnaires, survey scope and data collection methods.

18.2. Data Revision Practice

Revisions are published on an annual basis when the whole report is updated. Generally, these revisions are quite minor as the quality of the data is good.

18.2.1. Data Revision – Average size

Not calculated.

19. Statistical processing

19.1. Source Data

The report is based on the collection of administrative rather than survey data. The main sources of administrative data are: The Central Statistics Office; the Environmental Protection Agency; Met Eireann;; the Department of Agriculture, Food and the Marine; Eurostat; and the United Nations.



19.1.1. Population and sampling frame

Not applicable.

19.1.2. Sampling design

Not applicable.

19.1.3. Survey size

Not applicable.

19.1.4. Survey technique

Not applicable.

19.2. Frequency of data collection

Annual.

19.3.Data Collection

The report is based on the collection of administrative rather than survey data.

19.3.1. Type of Survey/Process

Not applicable.

19.3.2. Questionnaire (including explanations)

Not applicable.

19.3.3. Survey Participation

Not applicable.

19.3.4. Data Capture

Not applicable.

19.4. Data Validation

Data are edited manually. Implausible or erroneous data are interrogated using checks over time, comparison with other data sources and through follow up calls and emails with data providers. No special IT tool is used to carry out these checks.

19.5.Data Compilation

The processes used to calculate indicators in the Report are set out in the Background Notes published on the CSO website

<https://www.cso.ie/en/methods/surveybackgroundnotes/environmentalindicatorsireland/>

Excel data are checked against output data used in the previous year and from other sources; missing data is imputed; and data sources are contacted via email and telephone to check that the data is accurate.



19.5.1. Imputation (for Non-Response or Incomplete Data Sets)

Imputation is based on carrying forward the latest available data in Excel.

19.5.1.1. A7. Imputation rate

Not calculated.

19.5.2. Grossing and Weighting

Not applicable.

19.6. Adjustment

Not applicable.

19.6.1. Seasonal Adjustment

Not applicable.

20. Comment

The table below gives an indication of the sources of information used for the compilation of this release.

1.1	World Population	https://population.un.org/wpp
1.2	World Child Mortality	https://population.un.org/wpp
1.3	World Life Expectancy	https://population.un.org/wpp
1.4	World Temperatures	https://climate.metoffice.cloud/temperature.html
1.5	World Greenhouse Gas Emissions	https://ourworldindata.org/co2-and-greenhouse-gas-emissions
1.6	World Domestic Material Consumption per capita	unstats.un.org/sdgs
2.1	Ireland: Greenhouse gas emissions by NACE sector and residence principle	https://www.cso.ie
2.2	Ireland: Greenhouse gas emissions territorial principle	https://www.cso.ie
2.3	EU Greenhouse gas emissions 2023	https://ec.europa.eu/eurostat
2.4	EU: Greenhouse gas emissions per capita 2023	https://ec.europa.eu/eurostat
2.5	Ireland: Greenhouse gas emissions by EPA sector territorial principle	https://www.epa.ie
2.6	Ireland: Greenhouse gas emission by NACE sector and territorial principle	https://www.cso.ie
2.7	Ireland: Average annual temperature	https://www.met.ie
2.8	Ireland: Average annual rainfall	https://www.met.ie
3.1	Ireland: Bathing water quality	https://www.epa.ie
3.2	Ireland: Drinking water quality	https://www.epa.ie
3.3	Ireland: Urban wastewater treatment	https://www.epa.ie
3.4	Ireland: River water quality	https://www.epa.ie
3.5	Ireland: Nitrates in groundwater	https://www.epa.ie
4.1	Ireland: Ecosystems extent accounts	https://www.cso.ie
4.2	EU: Forest cover	https://ec.europa.eu/eurostat
4.3	Ireland: Organic agricultural land	https://www.gov.ie/agriculture



4.4	EU: Organic agricultural land	https://ec.europa.eu/eurostat
4.5	Ireland: Fertiliser sales	https://www.gov.ie/agriculture
4.6	EU: Fertiliser sales	https://ec.europa.eu/eurostat
4.7	Ireland: Cattle, sheep and pig numbers	https://www.cso.ie
4.8	EU: Cattle, sheep and pig numbers	https://ec.europa.eu/eurostat
4.9	Ireland: New dwellings completions	https://www.cso.ie