

Assessment of compliance with the Code of Practice for Official Statistics

Statistics on the Environment and Waste Management in Northern Ireland

*(produced by the Department of the Environment
Northern Ireland)*

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About the UK Statistics Authority

The UK Statistics Authority is an independent body operating at arm's length from government as a non-ministerial department, directly accountable to Parliament. It was established on 1 April 2008 by the *Statistics and Registration Service Act 2007*.

The Authority's overall objective is to promote and safeguard the production and publication of official statistics that serve the public good. It is also required to promote and safeguard the quality and comprehensiveness of official statistics, and good practice in relation to official statistics.

The Statistics Authority has two main functions:

1. oversight of the Office for National Statistics (ONS) – the executive office of the Authority;
2. independent scrutiny (monitoring and assessment) of all official statistics produced in the UK.

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ASSESSMENT AND DESIGNATION

The *Statistics and Registration Service Act 2007* gives the UK Statistics Authority a statutory power to assess sets of statistics against the *Code of Practice for Official Statistics*.

Assessment will determine whether it is appropriate for the statistics to be designated as National Statistics.

Designation as National Statistics means that the statistics comply with the *Code of Practice*. The *Code* is wide-ranging. Designation can be interpreted to mean that the statistics: meet identified user needs; are produced, managed and disseminated to high standards; and are explained well.

Designation as National Statistics should not be interpreted to mean that the statistics are always correct. For example, whilst the *Code* requires statistics to be produced to a level of accuracy that meets users' needs, it also recognises that errors can occur – in which case it requires them to be corrected and publicised.

Assessment reports will not normally comment further on a set of statistics, for example on their validity as social or economic measures. However, reports may point to such questions if the Authority believes that further research would be desirable.

Assessment reports typically provide an overview of any noteworthy features of the methods used to produce the statistics, and will highlight substantial concerns about quality. Assessment reports also describe aspects of the ways in which the producer addresses the 'sound methods and assured quality' principle of the *Code*, but do not themselves constitute a review of the methods used to produce the statistics. However the *Code* requires producers to "seek to achieve continuous improvement in statistical processes by, for example, undertaking regular reviews".

The Authority may grant designation on condition that the producer body takes steps, within a stated timeframe, to fully meet the *Code's* requirements. This is to avoid public confusion and does not reduce the obligation to comply with the *Code*.

The Authority grants designation on the basis of three main sources of information:

- i. factual evidence and assurances by senior statisticians in the producer body;
- ii. the views of users who we contact, or who contact us, and;
- iii. our own review activity.

Should further information come to light subsequently which changes the Authority's analysis, it may withdraw the Assessment report and revise it as necessary.

It is a statutory requirement on the producer body to ensure that it continues to produce the set of statistics designated as National Statistics in compliance with the *Code of Practice*.

Contents

Section 1: Summary of findings

Section 2: Subject of the assessment

Section 3: Assessment findings

Annex 1: Suggestions for improvement

Annex 2: Compliance with Standards for Statistical Reports

Annex 3: Summary of assessment process and users' views

1 Summary of findings

1.1 Introduction

1.1.1 This is one of a series of reports¹ prepared under the provisions of the *Statistics and Registration Service Act 2007*². The Act allows an appropriate authority³ to request an assessment of official statistics against the *Code of Practice for Official Statistics*⁴ in order for them to gain National Statistics status. This report is in response to such a request. The report covers the following sets of statistics produced by the Department of the Environment Northern Ireland (DOE):

- *Northern Ireland Environmental Statistics Report*⁵ (ESR)
- *Northern Ireland Local Authority Collected Municipal Waste Management Statistics; Annual Report*⁶ (MWM Annual)
- *Northern Ireland Local Authority Collected Municipal Waste Management Statistics; Provisional Estimates*⁷ (MWM Quarterly)

1.1.2 Section 3 of this report adopts an ‘exception reporting’ approach – it includes text only to support the Requirements made to strengthen compliance with the *Code* and Suggestions made to improve confidence in the production, management and dissemination of these statistics. This abbreviated style of report reflects the Head of Assessment’s consideration of aspects of risk and materiality⁸. The Assessment team nonetheless assessed compliance with all parts of the *Code of Practice* and has commented on all those in respect of which some remedial action is recommended.

1.1.3 *ESR* is a compendium report comprising the re-presentation of previously published statistics alongside a small number of new statistics. Assessments of compendium publications against the *Code of Practice* relate to the processes involved in preparing the publication, rather than in producing the statistics that are included. Those sets of statistics will normally be subject to separate assessment. Designation of a compendium publication as National Statistics therefore means that the producer body has, for example: identified and met user needs in terms of the content of the publication; considered the appropriateness of each series for inclusion; and written appropriate commentary.

¹ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html>

² http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga_20070018_en.pdf

³ Subsection 12(7) of the Act defines ‘appropriate authority’ as Ministers of the Crown, Scottish Ministers, Welsh Ministers, Northern Ireland departments or the National Statistician

⁴ <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

⁵ <http://www.doeni.gov.uk/ni-environmental-statistics-report-2013.pdf>

⁶ http://www.doeni.gov.uk/lac_municipal_waste_2011-12.pdf

⁷ http://www.doeni.gov.uk/index/information/asb/statistics/environment_statistics.htm

⁸ <http://www.statisticsauthority.gov.uk/assessment/assessment/guidance-about-assessment/criteria-for-deciding-upon-the-format-of-an-assessment-report.pdf>

1.1.4 This report was prepared by the Authority's Assessment team, and approved by the Assessment Committee on behalf of the Board of the Statistics Authority, based on the advice of the Head of Assessment.

1.2 Decision concerning designation as National Statistics

1.2.1 The Statistics Authority judges that the statistics covered by this report are readily accessible, produced according to sound methods and managed impartially and objectively in the public interest, subject to any points for action in this report. The Statistics Authority confirms that the statistics published in the products listed in 1.1.1 can be designated as new National Statistics products, subject to DOE implementing the enhancements listed in section 1.5 and reporting them to the Authority by December 2013.

1.3 Summary of strengths and weaknesses

1.3.1 DOE has taken recent steps to engage with the users of the statistics and suppliers of the data used to compile the statistics, and has gathered some evidence on the uses of the statistics. DOE has not fully documented and published this information.

1.3.2 *ESR* brings together a wide range of environmental indicators in an easily accessible format at a low cost to the producer. The statistics are not clearly labelled as National Statistics, official statistics or non-official statistics. *ESR* includes the first release of some statistical series – but DOE does not make clear which of the statistics in *ESR* are being published for the first time.

1.3.3 *MWM Annual* and *MWM Quarterly* make good use of administrative data; the reports are well structured with clear supporting charts. DOE does not provide sufficient supporting information about the quality of the municipal waste management statistics or the methods used to compile the statistics.

1.4 Detailed recommendations

1.4.1 The Assessment team identified some areas where it felt that DOE could strengthen its compliance with the *Code*. Those which the Assessment team considers essential to enable designation as National Statistics are listed in section 1.5. Other suggestions, which would improve the statistics and the service provided to users but which are not formally required for their designation, are listed at annex 1.

1.5 Requirements for designation as National Statistics

Requirement 1

Take steps to develop a greater understanding of the uses made of the statistics that are published for the first time in these reports, document more fully the uses made of the statistics and publish information about users' experiences of the statistics and the types of decisions they inform (para 3.1).

Requirement 2	a) provide a statement explaining the nature and extent of revisions at the time they are released; b) indicate clearly which of the statistics in <i>ESR</i> are being released for the first time; and c) indicate when (and where, if not in <i>ESR</i>) the statistics will be updated (para 3.2).
Requirement 3	Signpost users to details of the methods used to produce the sets of statistics included in <i>ESR</i> (para 3.3).
Requirement 4	Clearly label the statistics in <i>ESR</i> as National Statistics, official statistics or non-official statistics (para 3.4).
Requirement 5	a) provide an explanation for the data quality assessment rating in <i>ESR</i> ; and b) publish information about the quality and reliability of the statistics presented in <i>MWM Annual</i> and <i>MWM Quarterly</i> ; make clear their strengths and limitations in relation to use; and ensure that users are informed of all main sources of error and bias (para 3.5).
Requirement 6	Publish information about the coherence of <i>ESR</i> with other DOE reports to aid the use of the statistics (para 3.6).
Requirement 7	Provide information, or links to information, about the comparability of the statistics published in <i>ESR</i> with those produced by other UK administrations (para 3.7).
Requirement 8	Improve the commentary in the reports so that it aids user interpretation of the statistics (para 3.9).
Requirement 9	Publish a timetable for all these reports for 12 months ahead (para 3.11).

2 Subject of the assessment

- 2.1 DOE comprises a number of executive agencies and policy divisions responsible for the environment, planning and local government, and road safety in Northern Ireland. The Northern Ireland Environment Agency⁹ (NIEA) is an agency within the DOE and works with the DOE Environmental Policy Division to develop and implement the Northern Ireland Assembly's environmental policy and strategy. The statisticians in DOE are employed by the Northern Ireland Statistics and Research Agency¹⁰ (NISRA) and are part of the Analytical Services Branch (ASB) in DOE which publishes a range of official statistics covering the department's remit.
- 2.2 *Northern Ireland Environmental Statistics Report (ESR)* is an annual compendium publication that presents statistics on a range of environmental indicators in Northern Ireland including: air and climate; water; marine; land; biodiversity; built heritage; and waste. It also includes information about demographics and public opinion on the environment. DOE told us that the content of the report is reviewed each year, some additional indicators may be added and in some instances indicators may be removed. *ESR* presents summary statistics for each topic with some commentary, and includes tables and links to further information and data sources in appendices. *ESR* presents previously published statistics alongside some new statistics; the 2013 report presents 61 statistical indicators in total and is the first release for 11 of them. These include the Water Framework Directive¹¹ overall classification provided by NIEA and statistics on sea temperature for the Irish Sea¹² provided by the Agri-Food and Biosciences Institute (AFBI).
- 2.3 DOE publishes *Northern Ireland Local Authority Collected Municipal Waste Management Statistics; Provisional Estimates (MWM Quarterly)* each quarter with the final statistics published each November in *Northern Ireland Local Authority Collected Municipal Waste Management Statistics; Annual Report (MWM Annual)*. *MWM Annual* presents statistics for the latest financial year on the amount of municipal waste collected and managed in Northern Ireland. The report covers municipal waste sent for recycling, or to landfill or compost, for each local authority waste management group¹³ in Northern Ireland. Some of the measures are key performance indicators (KPIs) which DOE uses to monitor the progress of its environment strategy¹⁴ and the Northern Ireland Executive's *Programme for Government*¹⁵. Detailed tables presenting the statistics for each local authority are included in an appendix to the report and further tables are presented in Excel format.
- 2.4 *MWM Quarterly* presents provisional statistics on local authority collected municipal waste, approximately four months after the end of the quarter to which the statistics relate. The statistics are presented by local authority waste

⁹ <http://www.doeni.gov.uk/niea/>

¹⁰ <http://www.nisra.gov.uk/>

¹¹ http://www.doeni.gov.uk/index/protect_the_environment/water/priority_substances.htm

¹² <http://www.afbini.gov.uk/index/services/services-specialist-advice/coastal-science/coastal-monitoring/monitored-sites/irish-sea.htm>

¹³ In Northern Ireland, there are 26 local councils which are split into 3 waste management groups, see http://www.doeni.gov.uk/niea/waste-home/municipal_data_reporting.htm

¹⁴ <http://www.doeni.gov.uk/niea/wms.17.pdf>

¹⁵ <http://www.northernireland.gov.uk/pfg-2011-2015-final-report.pdf> page 45

management group with tables in the appendix containing statistics for each local authority. The report provides local authorities with timely information to help monitor their work.

- 2.5 *MWM Annual* and *MWM Quarterly* are compiled using data from the WasteDataFlow¹⁶ (WDF) system, a web-based database for municipal waste reporting by local authorities (called district, borough and city councils in Northern Ireland) used by the four UK administrations. WDF was introduced in 2004 across the UK, and was adopted in Northern Ireland in April 2005 after a six-month pilot scheme. In Northern Ireland WDF is managed by NIEA which leads on working with local authorities on the collation of data. The statistics team at DOE download the data directly from WDF and liaises with NIEA to validate the data with local authorities.
- 2.6 *ESR* is used by policy makers in government for providing background for an overview of the environment in Northern Ireland. It is used by the public, environmental interest groups and academics as an easy access reference source for information about the environment. *MWM Annual* and *MWM Quarterly* are used by local authority and waste management groups in Northern Ireland to monitor progress towards meeting Northern Ireland's waste strategy targets¹⁷. The three reports are also used by DOE to respond to assembly questions and to ad hoc queries from the public.
- 2.7 The statistics presented in *ESR*, *MWM Annual* and *MWM Quarterly* are published in PDF with supplementary tables published in Excel. This equates to a level 2 rating under the Five Star Scheme proposed in the *Open Data White Paper: Unleashing the Potential*¹⁸.
- 2.8 DOE told us that the cost of producing *ESR* is approximately £7,000, and the costs for *MWM Annual* and *MWN Quarterly* together are approximately £18,500 per annum. This covers staffing costs for the collection, validation and production of the reports.

¹⁶ <http://www.wastedataflow.org/>

¹⁷ http://www.doeni.gov.uk/waste_management_strategy

¹⁸ http://data.gov.uk/sites/default/files/Open_data_White_Paper.pdf

3 Assessment findings

- 3.1 DOE has recently taken steps to engage with users of these statistics, with a focus on users of *ESR*, an annual compendium publication. It carried out a survey for users of *ESR* in September 2012 and published a summary report¹⁹ on its website. The report does not sufficiently highlight the use of the 11 sets of statistics that are released for the first time in *ESR*. Although the survey covered the waste management statistics that are published in *ESR*, DOE told us that it intends to carry out a standalone survey for the waste management reports in the future. DOE also published a summary²⁰ of a survey about the service provided by the statisticians. The statisticians delivered presentations and gathered feedback at an environmental statistics stakeholder workshop run by Northern Ireland Environment Link²¹ in November 2012; a summary report²² of the workshop was published on the Northern Ireland Environment Link's website, but DOE does not make it available on its website or link to it from the statistical reports. The statistics team told us that it attends meetings with NIEA to develop indicators for *ESR* but DOE does not publish minutes of these meetings. The statistical reports contain high level statements about the uses that are made of the statistics, for example policy development and briefing, general information and research, but do not provide information about the types of decisions or research projects that the statistics are used for. As part of the designation as National Statistics, DOE should take steps to develop a greater understanding of the uses made of the statistics that are published for the first time in these reports, document more fully the uses made of the statistics and publish information about users' experiences of the statistics and the types of decisions they inform²³ (Requirement 1). We suggest that in meeting this Requirement DOE refer to the types of use put forward in the Statistics Authority's Monitoring Brief, *The Use Made of Official Statistics*²⁴.
- 3.2 DOE has published a revisions policy²⁵ which explains how scheduled revisions are managed. It published a revision notice²⁶ for the 2012 *ESR*. However, some of the data tables in the 2013 *ESR* have a note stating 'figures amended from previously published figures', but there is no indication of which figures have been amended or by how much and when, or in which release the statistics will next be updated. It is also not clear which statistics are being released for the first time. As part of the designation as National Statistics, DOE should a) provide a statement explaining the nature and extent of revisions at the time they are released; b) indicate clearly which of the statistics in *ESR* are being released for the first time; and c) indicate when (and where, if not in *ESR*) the statistics will be updated²⁷ (Requirement 2).

¹⁹ http://www.doeni.gov.uk/niesr_user_survey_2012.pdf

²⁰ http://www.doeni.gov.uk/index/information/asb/asb_customer_satisfaction_surveys.htm

²¹ <http://www.nienvironmentlink.org/>

²² <http://www.nienvironmentlink.org/cmsfiles/files/events/SOE-Stakeholder-Workshop-Report-Nov-2012.pdf>

²³ In relation to Principle 1, Practice 2 of the *Code of Practice*

²⁴ <http://www.statisticsauthority.gov.uk/assessment/monitoring/monitoring-reviews/monitoring-brief-6-2010---the-use-made-of-official-statistics.pdf>

²⁵ http://www.doeni.gov.uk/supporting_statements.pdf

²⁶ http://www.doeni.gov.uk/northern_ireland_environmental_statistics_report_2012r_revision_note.pdf

²⁷ In relation to Principle 2, Practice 6 and Principle 8, Practice 4 of the *Code of Practice*

- 3.3 *MWM Annual* and *MWM Quarterly* provide a link to the methods documents that are used by local authorities in Northern Ireland to submit the data but provide no description of how local authorities compile the data. *ESR* contains further information about the sets of statistics included in it in an annex at the end of the report. This annex provides links to the sources for the sets of statistics; these are usually a link to the individual producer's page for the statistics and not to information about the methods used to compile the statistics. DOE does not publish any detailed information about the methods used to compile the statistics which are first released in *ESR*. As part of the designation as National Statistics, DOE should signpost users to details of the methods used to produce the sets of statistics included in *ESR*²⁸ (Requirement 3).
- 3.4 *ESR* presents a mixture of National Statistics, official statistics and non-official statistics; for example statistics about the Blue Flag Award are sourced from Tidy Northern Ireland²⁹ which is not a producer of official statistics. The inclusion of official and non-official statistics helps to provide a more complete picture for users. However, although DOE comments on the quality of all the statistics in the compendium, it does not clearly indicate the status of the statistics. As part of the designation as National Statistics, DOE should clearly label the statistics in *ESR* as National Statistics, official statistics or non-official statistics³⁰ (Requirement 4).
- 3.5 *ESR* includes a data quality section, outlining the data sources and an assessment of the quality of the data for each set of statistics in the compendium. The majority of the data sources are classed as 'Very Good'; however DOE does not provide an explanation of what this term means or how the assessment is reached. *MWM Annual* and *MWM Quarterly* state that the data used to compile the statistics are high quality as they are sourced from the WDF administrative system, but it does not provide links to relevant supporting quality documents for the WDF. The assessment of strengths and limitations provided in the User Guidance section notes that there may be a 'degree of clerical error'. However, the overall impression given is that the data are complete and accurate. Some caveats are provided within the commentary and in an appendix; however, these details do not fully explain the impact on the statistics presented or on the way in which they can be used. There is scope for DOE to publish, or provide links to, more information about the quality of the data, including further information about the strengths and limitations of the statistics and potential sources of bias. As part of the designation as National Statistics, DOE should a) provide an explanation for the data quality assessment rating in *ESR*; and b) publish information about the quality and reliability of the statistics presented in *MWM Annual* and *MWM Quarterly*; make clear their strengths and limitations in relation to use; and ensure that users are informed of all main sources of error and bias³¹ (Requirement 5).

²⁸ In relation to Principle 4, Practice 1 of the *Code of Practice*

²⁹ <http://www.tidynorthernireland.org/beaches/index.php>

³⁰ In relation to Principle 4, Practice 2 and Principle 8, Practice 1 of the *Code of Practice*

³¹ In relation to Principle 4, Practice 2 of the *Code of Practice*

- 3.6 Northern Ireland's first State of the Environment (SoE) report 'Our Environment, Our Heritage, Our Future'³² was published in 2008. The introduction to *ESR* notes that *SoE*, due to be updated during 2013, should be referenced for additional context. It is not made clear if *SoE* will present statistics that are published in *ESR*, or if it will provide more up to date statistics before the next release of *ESR*. The links between the reports are also not made clear. As part of the designation as National Statistics, DOE should publish information about the coherence of *ESR* with other DOE reports to aid the use of the statistics³³ (Requirement 6).
- 3.7 *MWM Annual* and *MWM Quarterly* provide links to statistics produced by other countries in the UK and to EU statistics. *ESR* provides some links to information about similar statistics for the other devolved administrations, for example for greenhouse gases. However for the majority of indicators it is not clear if similar statistics are available for the other administrations in the UK. As part of the designation as National Statistics, DOE should provide information, or links to information, about the comparability of the statistics published in *ESR* with those produced by other UK administrations³⁴ (Requirement 7).
- 3.8 Local authorities input data about municipal waste collection directly into WDF. The DOE statisticians access WDF directly each quarter and download the data required to produce the municipal waste management statistics. Some data suppliers told us that they find the WDF to be a cumbersome system and the process for inputting the data laborious. They also told us that although they collect some of these data as part of their routine work, the increased level of detail required for the DOE statistics creates a resource burden. DOE does not collect information about the time that it takes for each local authority to provide the data. DOE told us that the level of detail that local authorities are required to provide is determined by NIEA as part of the reporting requirements under the existing waste management framework. This policy framework is due to be revised in 2013/14 along with the introduction of a statutory recycling target for local authority collected municipal waste. In addition the local authority structure in Northern Ireland is due to be revised in 2015. Following these developments, DOE told us that it intends to assess and, if possible reduce, the perceived burden on the local authorities supplying waste management data, although there will still be a core set of data items that are mandatory on a UK-wide basis. We suggest that DOE share the feedback about the current data collection process with NIEA, inform data suppliers about the future planned developments, and put plans in place to work with NIEA and data suppliers in the development of future data collections.
- 3.9 *ESR*, *MWM Annual* and *MWM Quarterly* include helpful references to the appropriate policies and operational contexts for the statistics that help aid user understanding of the statistics. *ESR* presents 61 indicators in the 2013 report, and is the first release for 11 sets of statistics. It provides supporting commentary and charts or maps and links to further information for each indicator. *ESR* would benefit from a summary overview of the environment in Northern Ireland, highlighting the key points. In addition users told us that they

³² http://www.doeni.gov.uk/niea/index/about-niea/state_of_the_environment/state_of_the_environment_report.htm

³³ In relation to Principle 4, Practice 3 of the *Code of Practice*

³⁴ In relation to Principle 4, Practice 6 of the *Code of Practice*

would like more information about trends presented in *ESR*. Commentary in *MWM Annual* and *MWM Quarterly* primarily describes rises and falls in the statistics with little explanation. There are good glossaries in *MWM Annual* and *MWM Quarterly* but these do not contain explanations for some terms, for example 'clean MRFs'. As part of the designation as National Statistics, DOE should improve the commentary in the reports so that it aids user interpretation of the statistics³⁵ (Requirement 8). We suggest that in meeting this requirement DOE should consider the points detailed in annex 2.

- 3.10 DOE publishes the data tables in Excel format on its website. These files are linked from *MWM Annual* and *MWM Quarterly* but not from *ESR*. We suggest that DOE include clear links to the Excel files in *ESR*.
- 3.11 DOE publishes a schedule³⁶ on its website detailing the release of its statistics. However, this timetable does not include the next release of *ESR*. As part of the designation as National Statistics, DOE should publish a timetable for all these reports for 12 months ahead³⁷ (Requirement 9).

³⁵ In relation to Principle 8, Practice 2 of the *Code of Practice*

³⁶ http://www.doeni.gov.uk/index/information/asb/future_publications.htm

³⁷ In relation to Protocol 2, Practice 2 of the *Code of Practice*

Annex 1: Suggestions for improvement

A1.1 This annex includes some suggestions for improvement to DOE's environment and municipal waste management statistics, in the interest of the public good. These are not formally required for designation, but the Assessment team considers that their implementation will improve public confidence in the production, management and dissemination of official statistics.

- | | |
|---------------------|--|
| Suggestion 1 | Refer to the types of use put forward in the Statistics Authority's Monitoring Brief, <i>The Use Made of Official Statistics</i> when documenting use (para 3.1). |
| Suggestion 2 | Share the feedback about the current data collection process with NIEA, inform data suppliers about the future planned developments, and put plans in place to work with NIEA and data suppliers in the development of future data collections (para 3.8). |
| Suggestion 3 | Consider the points detailed in annex 2, in seeking to improve the statistical reports (para 3.9). |
| Suggestion 4 | Include clear links to the Excel files in <i>ESR</i> (para 3.10). |

Annex 2: Compliance with Standards for Statistical Reports

- A2.1 In November 2012, the Statistics Authority issued a statement on *Standards for Statistical Reports*³⁸. While this is not part of the *Code of Practice for Official Statistics*, the Authority regards it as advice that will promote both understanding and compliance with the *Code*. In relation to the statistical reports associated with Environment and Waste Management Statistics, this annex comments on compliance with the statement on standards.
- A2.2 In implementing any Requirements of this report (at paragraph 1.5) which relate to the content of statistical reports, we encourage the producer body to apply the standards as fully as possible.

Include an impartial narrative in plain English that draws out the main messages from the statistics

- A2.3 *MWM Annual* and *MWM Quarterly* both provide good context in the introduction but some interesting points have not been identified in the key points; for example, page 19 of *MWM Annual 2011/12* reports that two local authorities have lower recycling rates than previously reported, but this is not included in the key points. *ESR* includes good background context. Each chapter includes an introduction that provides context and draws out the main points. The first chapter of *ESR* presents demographics, but it would be helpful if it included an overview bringing changes in demography and the environment together with some economic context.
- A2.4 Commentary in *MWM Annual* and *MWM Quarterly* primarily describes rises and falls with little explanation. Although *MWM Annual* provides good comparisons between waste management groups and local authorities, the commentary is lacking possible explanations to help users understand the statistics. For example, all waste management groups have shown a decrease in the amount of waste collected, but there is no explanation why some areas have shown more of a decrease than others. Commentary in *MWM Annual* focuses on year-on-year comparisons, with only one sentence for each chart discussing the long-term trend. *MWM Quarterly* compares current estimates with those from the same quarter in the previous year to avoid seasonal fluctuations.
- A2.5 Some statistics in *ESR* are presented as time series but there is not much commentary about the long-term trends. For example, the changes to sea temperatures are not explored and there is no discussion of the decline in air passenger numbers since 2008. The greenhouse gas emissions commentary puts the Northern Ireland statistics into a UK context but it is not clear whether the chart shows Northern Ireland or UK Emissions. Although there is good commentary for each chapter, additional analysis explaining how they relate to each other would be useful. It is not clear from the commentary in each chapter that links to further information and references are supplied in the appendices.
- A2.6 The language used in *MWM Annual* and *MWM Quarterly* is generally straightforward, although some technical terms are not defined when first used, for example 'dirty MRFs' and 'capture rates'. Key performance indicators (KPIs)

³⁸ <http://www.statisticsauthority.gov.uk/news/standards-for-statistical-reports.html>

are identified by letters, such as KPI (a). A glossary is provided as an appendix. Furthermore, one type of waste – biodegradable municipal waste sent to landfill – is abbreviated differently in consecutive sentences. Technical terms in *ESR* are explained well within the commentary. A separate glossary of terms would also be useful.

Include information about the context and likely uses of the statistics

- A2.7 *MWM Annual* and *MWM Quarterly* each provide a summary paragraph explaining that the data are used to inform policy. The introductions to the reports also explain that some of the statistics are KPIs and are used to assess progress against targets. However, the targets are only fully explained in the main commentary around each set of statistics. The targets for each KPI could be usefully provided in the table presented on page 7 of *MWM Annual 2011/12*. The reports also note that the statistics are used by special interest groups and academia but do not provide any examples of use by these groups.
- A2.8 *ESR* provides a good overview of the policy context but it is unclear how each of these statistics feeds into policy making. *ESR* is the first publication of 11 sets of statistics. *ESR* presents clear explanations of what is being measured, but some statistics are missing an explanation of why they are being measured; one example of this is the sea temperature statistics. Where targets and EU directives are stated, it is done so objectively.

Include information about the strengths and limitations of the statistics in relation to their potential use

- A2.9 *MWM Quarterly* notes that the statistics presented are provisional; *MWM Annual* states that the statistics are the ‘final, validated’ statistics. The assessment of strengths and limitations provided in the user guidance section notes that there may be a ‘degree of clerical error’. However, the overall impression given is that, as the data are from an administrative source, they are complete and accurate. Some caveats are provided within the commentary with further details given in an appendix; however, these details (for example, note 4 on page 49 of *MWM Annual 2011/12*) do not fully explain the impact on the statistics presented or the way in which they can be used. The commentary in *ESR* appropriately refers to estimates; however the strengths and limitations of the statistics are not discussed in the brief commentary.
- A2.10 The user guidance sections in *MWM Annual* and *MWM Quarterly* provide information about the validation and audit processes that the data are subject to. Appendix 2 of *ESR* (2013) presents an assessment of the data sources which rates them all as ‘very good’ or ‘high quality’ with no reference to what this means. Appendix 4 of the same release provides links to the data suppliers’ websites, but often there is no information about the methods used to compile the statistics. There is little discussion in any of the reports about non-sampling errors which may affect the statistics and how they can be used.
- A2.11 *MWM Annual* and *MWM Quarterly* do not present any revised estimates. The explanatory notes provide a brief statement noting that that revised figures will be published in subsequent releases unless it is decided that the magnitude of

the change merits earlier notification. The policy does not describe how the revisions are identified and explained within the report. *ESR* presents a table of changed, new and discontinued indicators. The revisions to the greenhouse gas emissions are noted in the data assessment section; however some tables (for example 2.1 and 2.2) have a footnote stating 'Figures amended from previously published figures' with no indication of which figures have been amended, by how much or reasons for the amendments.

Be professionally sound

A2.12 The descriptive statements in the reports are demonstrably consistent with the statistics. *MWM Annual* presents time series from 2002 for many statistics. The commentary and analysis around these time series could be expanded further to aid user interpretation. One key point in *MWM Annual 2011/12* describes a decrease of a third and compares a fraction with a percentage; this could be better presented. In *ESR* there is no discussion of inconsistency within time series where methods or classifications have changed; for example in the most recent *ESR* (2013), there is a break in the time series in 2007 for 'groundwater quality – nitrate' but no discussion of whether the 2008 statistics are comparable with the 2006 statistics presented together in the chart (figure 3.4).

A2.13 In all reports, each set of statistics is presented in charts with commentary. Some charts are not clear when printed in black and white; for example figure 4 in *MWM Annual 2011/12* and figure 2.5, 3.4, 3.5 and 7.4 in the most recent *ESR* (2013).

Include, or link to, appropriate metadata

A2.14 The titles of *MWM Annual* and *MWM Quarterly* provide adequate descriptions of the statistics in plain English. *ESR* is a compendium so has an appropriate general title but it does not clearly state the time period that the statistics cover. The reports also provide a statement about the frequency of their release and the timing of the next publication.

A2.15 The covers of the reports present three logos (NISRA, NIEA and DOE). This makes it difficult for users to identify the responsible department.

A2.16 *MWM Annual* provides links to further information about the administrative data source (WDF) and similar statistics for other areas of the UK. The comparability of other UK data is qualified but the same source should be used across the UK. Further information about UK comparability would be useful to users. *ESR* provides links to European directives and UK legislation; however, it does not include links to similar statistical reports published by other UK countries.

A2.17 *MWM Annual* and *MWM Quarterly* explain that the name of the statistics changed recently to be a more accurate description of what is being presented. Forthcoming changes to the statistics resulting from the 2011 census are also highlighted. *ESR* does not clearly indicate which statistics are National Statistics, official statistics or non-official statistics.

Annex 3: Summary of assessment process and users' views

A3.1 This assessment was conducted from April to July 2013.

A3.2 The Assessment team – Emily Gleeson and Rachel Beardsmore – agreed the scope of and timetable for this assessment with representatives of DOE in April 2013. The Written Evidence for Assessment was provided on 3 June. The Assessment team subsequently met DOE during June to review compliance with the *Code of Practice*, taking account of the written evidence provided and other relevant sources of evidence.

Summary of users contacted, and issues raised

A3.3 Part of the assessment process involves our consideration of the views of users. We approach some known and potential users of the set of statistics, and we invite comments via an open note on the Authority's website. This process is not a statistical survey, but it enables us to gain some insights about the extent to which the statistics meet users' needs and the extent to which users feel that the producers of those statistics engage with them. We are aware that responses from users may not be representative of wider views, and we take account of this in the way that we prepare Assessment reports.

A3.4 The Assessment team received 29 responses from the user and supplier consultation. The respondents were grouped as follows:

Government departments	13
Local authority	10
Government agencies	2
Consultant	1
Environment forum	1
Waste management partnership	1
Public	1

A3.5 Users were generally content with *ESR*, *MWM Annual* and *MWM Quarterly*. For *ESR*, the primary use reported was for policy development and preparation of business cases. One user required more timely information; another questioned the rationale behind the choice of indicators and a further user asked for a clearer explanation of the trends reported. *MWM Annual* and *MWM Quarterly* were primarily used for comparison across local authorities.

A3.6 The majority of data suppliers for *ESR* noted that they would collect the data for their own purposes even if they were not required for the report. They found it straightforward to supply the data and reported good working relationships with the DOE statisticians. The statistics were generally accepted as being good quality.

A3.7 Data suppliers for *MWM Annual* and *MWM Quarterly* presented a more mixed response; while some said they would collect the same information even if not required by DOE, others said they would not collect the same level of detail. There were different levels of understanding about what use DOE make of the data and a differing of opinion about the levels of consultation with some suppliers feeling that this was adequate and others reporting none. There was

general consensus that the WDF reporting mechanism is cumbersome with the process of inputting the data labour intensive. There were two queries around the obligations placed on local authorities in relation to the reporting of the 'final destination' of waste; querying if this should be the local authority's responsibility and asking for clarification on the matter.

Key documents/links provided

Written Evidence for Assessment document

