



25 September 2014

UK statistics on waste – 2010 to 2012

The purpose of this release is to announce UK estimates which have been calculated to comply with the EC Waste Framework Directive and EC Waste Statistics Regulation.

The elements are and country at which data is published are:

- Biodegradable municipal waste (BMW) sent to landfill – UK and country level data.
- Waste from households – UK and country level data.
- Waste arisings from the commercial and industrial sector – UK and England.
- Number and capacity of final treatment facilities - UK and England.

Key points

- The UK recycling rate of 'waste from households' reached 43.9 per cent in 2012, rising from 42.9 per cent in 2011. There is an EC target for the UK to recycle at least 50 per cent by 2020.
- The UK Biodegradable Municipal Waste (BMW) sent to landfill in 2010 was 13.0 million tonnes. This represents 36 per cent of the 1995 baseline value, which comfortably met the 2010 EC target.
- The UK Biodegradable Municipal Waste (BMW) sent to landfill has continued to reduce and in 2012 was 10.3 million tonnes. This represents 29 per cent of the 1995 baseline value. There is an EC target to contain BMW to landfill to within 50 per cent of the 1995 baseline by 2013 and 35 per cent by 2020.
- The Waste Statistics Regulation return 2012 estimated waste generation from commercial and industrial economic activities in the UK to be 48.0 million tonnes in 2012, of which 39.4 million tonnes was from England.

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An Official Statistics publication. These statistics have been produced to the high professional standards set out in the Code of Practice for Official Statistics, which sets out eight principles including meeting user needs, impartiality and objectivity, integrity, sound methods and assured quality, frankness and accessibility.

More information on the Official Statistics Code of Practice can be found at <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>.

1 Waste from households

'Waste from Households' is the agreed harmonised UK measure used to report household recycling to comply with the Waste Framework Directive (2008/98/EC). Under this Directive the UK and other EC Member States must meet a target to recycle 50% of 'household waste' by 2020. The UK currently defines 'household waste' using the 'waste from households' measure (for more information see Glossary).

Table 1: Waste from Households, UK and country split, 2010-12

Year	Measure	UK	England	NI	Scotland	Wales
2010	Arisings ('000 tonnes)	26,973	22,150	829	2,649	1,344
	Recycled ('000 tonnes)	10,879	9,112	315	861	591
	Recycling rate	40.3%	41.1%	38.0%	32.5%	44.0%
2011	Arisings ('000 tonnes)	26,810	22,187	810	2,484	1,329
	Recycled ('000 tonnes)	11,496	9,596	327	922	651
	Recycling rate	42.9%	43.3%	40.4%	37.1%	49.0%
2012	Arisings ('000 tonnes)	26,431	21,960	783	2,383	1,304
	Recycled ('000 tonnes)	11,607	9,684	326	912	685
	Recycling rate	43.9%	44.1%	41.7%	38.3%	52.5%

Recycling rate = Recycled ('000 tonnes) as a percentage of Arisings ('000 tonnes)

The 2012 Recycled figure for Scotland was corrected from 913 to 912 on 26/09/2014.

Scotland and UK arisings 2010-12 were subject to minor revisions on 08/10/2014, impacting on the recycling rate.

Source: Waste Data Flow

Figure 1: Waste from Households arisings, by country and UK, 2010-12

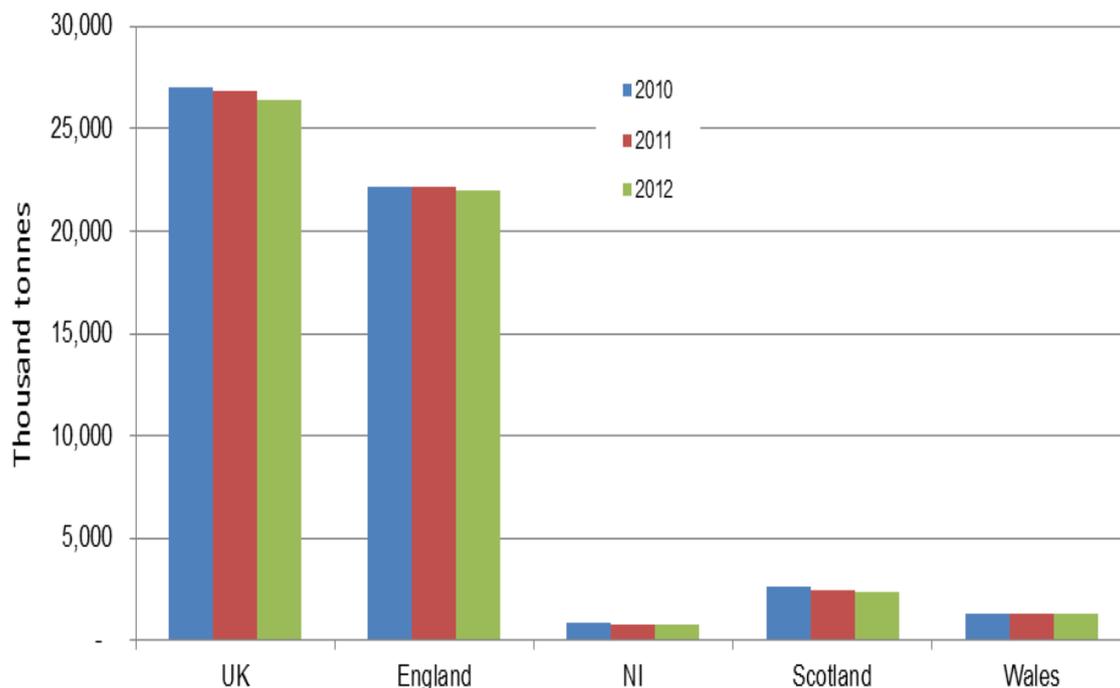
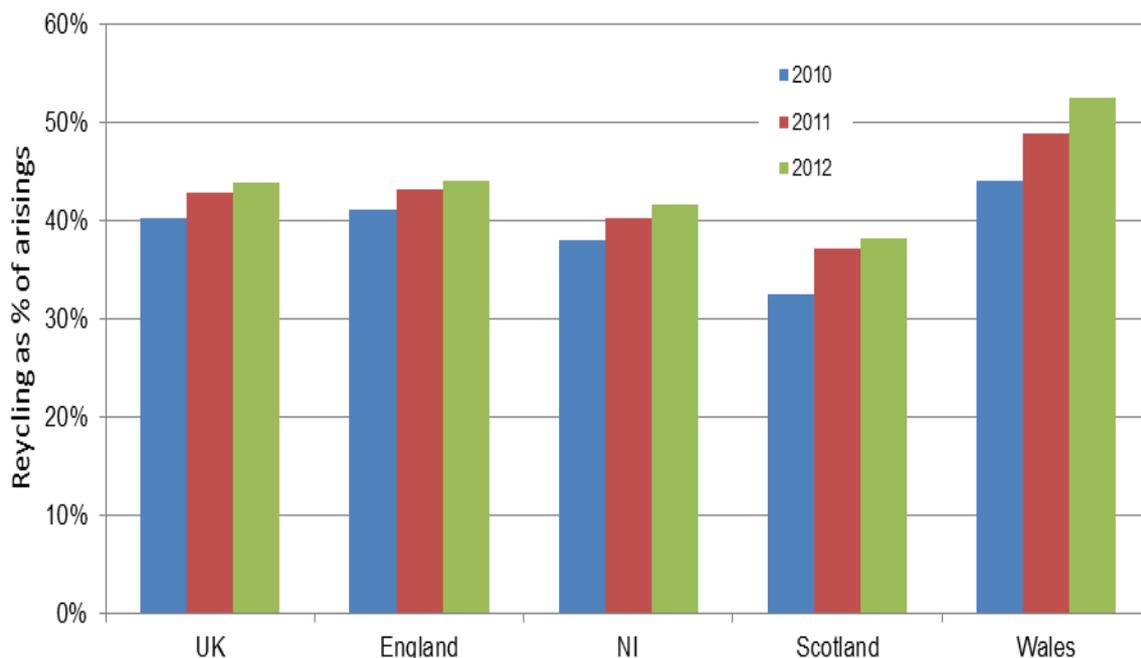


Figure 2: Recycling rate of Waste from Households, by country and UK, 2010-12



- Table 1 and figure 1 show that England is responsible for the vast proportion of UK Waste from Households, generating 22.0 million tonnes of the UK total 26.4 million tonnes of 'Waste from Households' in 2012.
- Table 1 and Figure 2 show that the recycling rate increased in all UK countries from 2010 to 2012.
- Table 1 and Figure 2 show that Wales had the highest recycling rate of the UK countries in each of the three years 2010-2012, achieving 52.5% in 2012.
- The UK achieved a recycling rate of 43.9% in 2012 compared to 42.9% in 2011 and 40.3% in 2010. There is an EC target for the UK to recycle at least 50 per cent by 2020.

2 Biodegradable municipal waste (BMW) sent to landfill

The Landfill Directive (1999/31/EC) aims to reduce, as far as possible, the negative effects of landfilling waste. The UK has three targets to meet, measured as a percentage of the tonnage of BMW to landfill in 1995. These are:

- No greater than 75% of the 1995 tonnage by 2010
- No greater than 50% of the 1995 tonnage by 2013
- No greater than 35% of the 1995 tonnage by 2020

Table 2: Municipal Waste and BMW to Landfill, UK and country split, 1995, 2010-12

thousand tonnes

Year	Measure	UK	England	NI	Scotland	Wales
1995	Municipal Waste to Landfill					
	<i>of which</i> BMW to Landfill	35,688	29,030	1,225	3,595	1,837
2010	Municipal Waste to Landfill	24,807	20,298	893	2,296	1,319
	<i>of which</i> BMW to Landfill	12,982	10,339	558	1,406	678
2011	Municipal Waste to Landfill	22,432	18,421	734	2,113	1,164
	<i>of which</i> BMW to Landfill	11,716	9,360	464	1,282	609
2012	Municipal Waste to Landfill	19,733	16,187	622	1,902	1,023
	<i>of which</i> BMW to Landfill	10,293	8,129	394	1,170	599

The 1995 target baseline was modelled and agreed in 2010

BMW = Biodegradable municipal waste

The 2012 figures for NI and UK were subject to very minor revision on 10/10/2014

Source: Waste Data Interrogator, Defra Statistics

Figure 3: BMW to Landfill, UK and country split, 2010-12

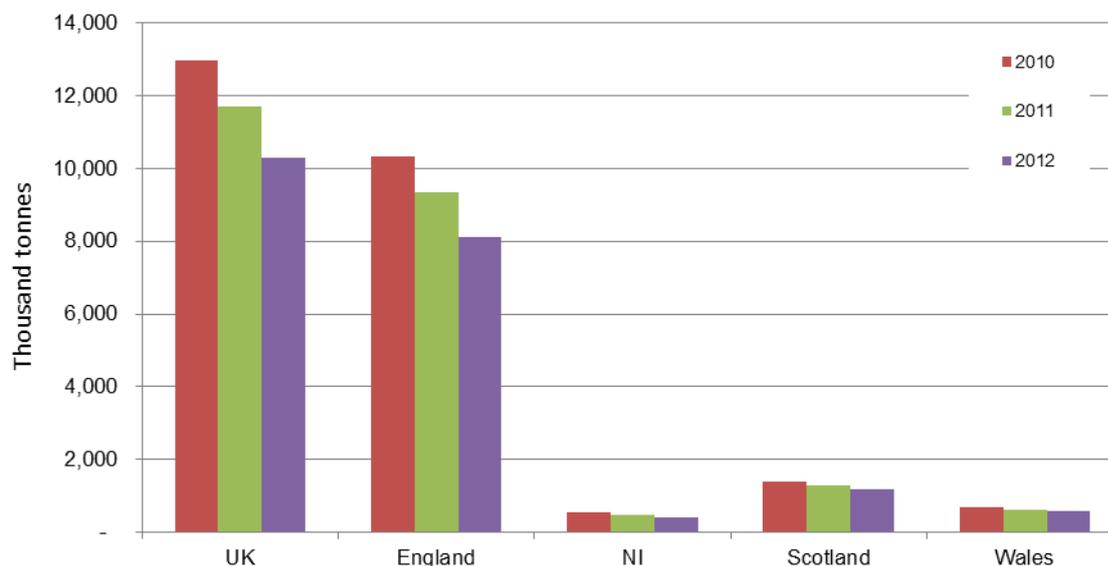


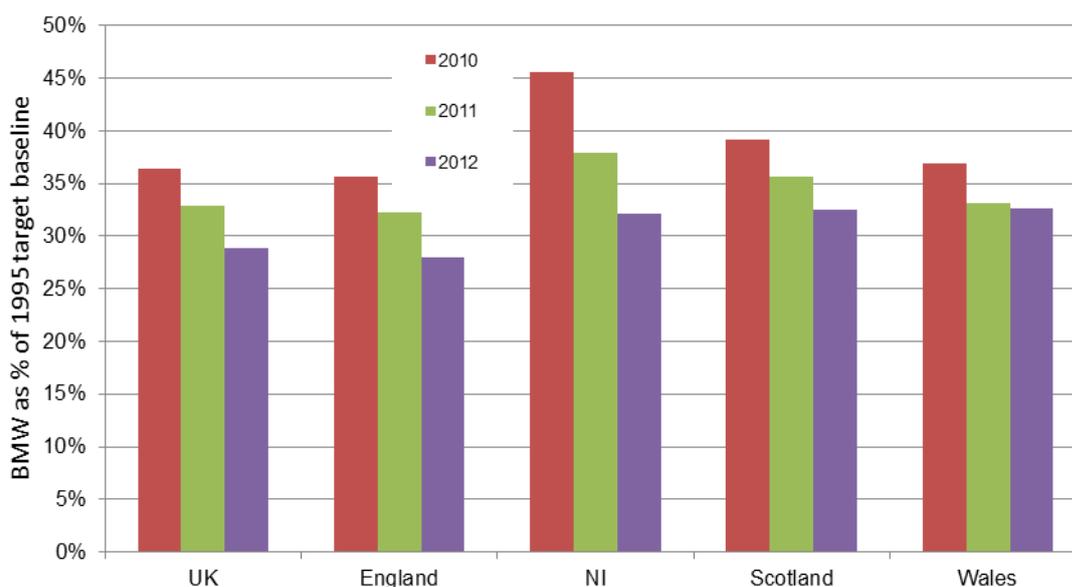
Table 3: BMW to Landfill as % of 1995 target baseline, UK and country split, 2010-12

Year	UK	England	NI	Scotland	Wales
2010	36%	36%	46%	39%	37%
2011	33%	32%	38%	36%	33%
2012	29%	28%	32%	33%	33%

BMW = Biodegradable municipal waste

Source: Defra Statistics

Figure 4: BMW to Landfill as a percentage of 1995 target baseline, UK and country split, 2010-12



- Table 2 and figure 3 show that England is responsible for the vast proportion of UK BMW to Landfill, generating 8.1 million tonnes of the UK total 10.3 million tonnes BMW to Landfill in 2012.
- Table 2 and figure 3 show that all UK countries have reduced BMW to Landfill in each year between 2010 and 2012 and levels have fallen considerably since 1995.
- Table 3 and figure 4 show that the UK BMW sent to landfill in 2010 was 13.0 million tonnes. This represents 36 per cent of the 1995 baseline value, which comfortably met the 2010 EC target (no greater than 75 per cent of the 1995 tonnage).
- Table 3 and figure 4 show that the UK BMW sent to landfill in 2012 was 10.3 million tonnes. This represents 29 per cent of the 1995 baseline value. There is an EC target to contain BMW to landfill to within 50 per cent of the 1995 baseline by 2013 and 35 per cent by 2020.
- Table 3 and figure 4 show that for 2010-2012 BMW to landfill as a percentage of the 1995 baseline was slightly lower in England compared to other UK countries.

3 Waste from commercial and industrial activities

UK and England estimates for waste generation by the commercial and industrial (C&I) sector have been calculated as part of the Waste Statistics Regulation return 2012. The term 'commercial and industrial' spans a range of economic activities including manufacturing, industrial processes and service based enterprises. The England estimates here are derived from the 'Reconcile Project' and represent a new methodology for this area and includes estimates for England only back to 2009. England estimates included in the Waste Statistics Regulation return 2010 have not yet been finalised on this basis, so we are only able to include UK figures for 2012 in this release.

Table 4: Total waste generation from the commercial and industrial sector, UK and England 2012

Source of estimate	Thousand tonnes	
	UK	England
Waste Statistics Regulation return	47,950	39,382
Reconcile Project		43,839

Source: Waste Statistics Regulation return 2012, Reconcile Project

- Table 4 shows that the Waste Statistics Return 2012 estimated waste generation from commercial and industrial economic activities to be 48.0 million tonnes in 2012, of which 39.4 million tonnes was from England.
- The estimated waste generation from commercial and industrial economic activities from the Reconcile Project was 43.8 million tonnes for England in 2012. The scope of the project was England only, so there is no equivalent at UK level. The Reconcile Project was commissioned by Defra to provide a new methodology for estimating commercial & industrial waste in England. The report was published in August 2014 and can be seen [here](#).
- A few adjustments to the Reconcile Project estimates were necessary in order to comply with the Waste Statistics Regulation reporting requirements, which explain the difference between the two estimates for England. The main difference was that sludges and dredging spoils, reported as measured weight in the Reconcile Project, are factored to a dry weight estimate in the Waste Statistics Regulation return. In addition, alternative sources are used for sewage and End of Life Vehicles in order to provide consistency across the UK.

4 Infrastructure

Table 5 contains information on the number and capacity of various facilities for the final treatment of waste. Defra collates summaries from the environment agencies of all four UK countries of facilities authorised by mandatory permit or license. The data excludes facilities that were formally closed throughout 2012 but does not identify permitted facilities which were non-operational in 2012. Facilities permitted only for treatment operations identified as intermediate (which include anaerobic digestion) are excluded from Table 5. Capacity is based on the level authorised by permit or license with the exception of some small scale incinerators where the permit did not feature capacity. In these cases, operational capacity is used.

Table 5: Number and Capacity of Final Treatment Facilities, UK and England, 2012

Facility type	Measure	UK	England
Energy recovery (R1 accreditation)	Number of facilities	18	-
	Capacity ('000 t/yr)	858	-
Incineration	Number of facilities	98	76
	Capacity ('000 t/yr)	10,496	10,103
Recovery other than energy recovery (includes backfilling)	Number of facilities	* 3,538	** 1,895
	Capacity		
Deposit onto or into land (landfill)	Number of facilities	594	478
	Rest (remaining) capacity (m ³)	633,203	505,438

'000 t/yr = Thousand tonnes per year

* Revised from 3,614 on 07/10/2014

** Revised from 1,971 on 07/10/2014

Source: Waste Statistics Regulation return 2012

DATA USES, METHODOLOGY, GLOSSARY, FEEDBACK AND REFERENCES

User Statement

Data on waste generation and management is collected to monitor policy effectiveness, particularly the commitments in the Waste Review and to support policy development. The data also meet legislative reporting targets on recycling targets set out in the Waste Framework Directive (2008/98/EC) and supply data for the Waste Statistics Regulation (2002/2150/EC). The data are used extensively by local and central government, the waste industry, academia and the public also.

Feedback

We welcome feedback on the data from all users including how and why the data is used. This helps us to understand the value of the statistics to external users. Please see our contact details at the bottom of the first page of this notice.

Methodology and glossary

UK estimates for '**waste from households**' have been calculated in accordance with the Waste Framework Directive. The 'waste from households' measure has been chosen as the UK interpretation of the EC term 'household waste', which they define as "waste generated by households". Waste management and recycling is a devolved matter and different countries have used their own data to adopt to the EU definition. The statistics are the best estimates that provide the conformity to the EU definition.

'Waste from households' includes waste from:

- Regular household collection
- Civic amenity sites
- 'Bulky waste'
- 'Other household waste'.

'Waste from households' excludes waste from:

- Street cleaning/sweeping
- Gully emptying
- Separately collected healthcare waste
- Asbestos waste

All UK countries base the 'waste from households' measure on output from the 'WasteDataFlow' database, which records Local Authority Collected Waste. Whilst the general approach is consistent across UK countries, aggregation method and the wording of some questions completed by Local Authorities varies. Users should be aware that individual UK countries other than England publish independent household recycling estimates using alternative measures and as such may differ from the estimates published here. Local Authorities in England may also use an alternative measure.

UK estimates for **biodegradable municipal waste (BMW) to landfill** have been calculated in accordance with the Waste Framework Directive and a consistent approach is used by all UK countries. Biodegradable Municipal Waste is the fraction of municipal waste that will degrade within a landfill site. Amongst other materials it will include food waste, green waste, cardboard and paper. Tonnage data is collated from mandatory returns made for landfills to the Environment Agencies of each of the four UK countries. Tonnages are split by EWC (European Waste Classification) codes, as determined by landfill operators. Factors on the proportion of waste that is biodegradable are applied to each code. Countries use broadly similar, but non-identical sets of factors. The factors are multiplied by the tonnages and then summed to give final country level estimates for BMW to landfill. New factors were adopted by England in 2014 for the two EWC codes that dominate Municipal Waste. The England figures published here for 2010-12 have been produced using these new factors.

UK estimates for waste generation from **commercial and industrial** sectors and waste treatment infrastructure have been compiled in accordance with the Waste Statistics Regulation reporting requirements. Data sources and detailed approaches may differ slightly between UK countries, but overarching principles will be consistent.

For the purpose of this statistics release, C&I is defined as a specific collection of economic activities described by NACE ('statistical classification of economic activities in the European Community') Those considered to be C&I here are: C, D, E36, E37, E39 and G-U (excluding G46.7.7). The descriptions of these can be found here: (http://ec.europa.eu/competition/mergers/cases/index/nace_all.html).

Information on **infrastructure** is based on mandatory reporting of permitted and licensed sites which is collated by the environment agencies in each of the countries in the UK. Small scale 'LAPPC' (Local Authority Pollution Prevention and Control) incinerators have not been included for England. Only facilities that have R1 accreditation have been included as 'Energy Recovery'. R1 accreditation is an EC standard based on efficiency factors. Application is voluntary, so the number of plants meeting R1 standards may be in excess of the number that are actually accredited. Recovery operations covered by simple exemptions or simple registrations are not included. These operations are classed as low risk or low volume and do not have to report activity to Environment Agencies. The permitted capacity of Energy Recovery and Incineration facilities includes municipal, commercial and industrial waste, and will be higher than the actual volume of waste treated.

Revisions Policy

Defra will provide information about any revisions made to published information in this statistics release and the associated datasets. Revisions could occur for various reasons, including when data from third parties is unavailable or provisional at the time of publishing or if there are subsequent methodological improvements or refinements.

Useful links

Scottish Government environment statistics	http://www.scotland.gov.uk/Topics/Statistics/Browse/Environment
Welsh Government statistics	http://wales.gov.uk/statistics-and-research/?lang=en
Northern Ireland Department of Environment statistics	http://www.doeni.gov.uk/index/information/asb/statistics.htm#environmentalstatistics
Eurostat	http://epp.eurostat.ec.europa.eu/portal/page/portal/waste/introduction/
Environment Agency	https://www.gov.uk/government/organisations/environment-agency
Waste Data Interrogator	http://www.geostore.com/environment-agency/WebStore?xml=staticweb/xml/dataLayers_WDI.xml
Wastedataflow portal	http://www.wastedataflow.org/login.aspx?ReturnUrl=%2fnews%2fwelcome.aspx
Reconcile project	http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=Non e&ProjectID=19118&FromSearch=Y&Publisher=1&SearchText=ev0804&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description
Biodegradability factors project	http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=Non e&Completed=1&ProjectID=19389