

Waste and packaging

Indicators

Waste disposed

Waste re-used/recycled

Proportion of waste re-used/recycled

Background

Each year, the UK produces 70 million tonnes of Industrial and Commercial (I&C) waste¹. The retail sector is the largest contributor, generating some 13 million tonnes². In addition, the sector contributes 5.2 million tonnes³ of packaging waste to the 35 million tonnes of municipal waste generated annually⁴. In May 2007, the Department for Environment, Food and Rural Affairs (Defra) published the new Waste Strategy for England, which sets out the policies that are expected to reduce I&C waste by 20% by 2010 (compared to a 2004 baseline) and to reduce the biodegradable municipal waste sent to landfill to 75% of that produced in 1995 by 2010, 50% by 2013 and 35% by 2020⁵.



In 2007, waste disposal costs continued to rise, due to decreasing landfill capacity and the application of the landfill tax escalator, which has increased the cost of landfill tax by £3 per tonne each year since 1999. Following the rise in the escalator from £3 to £8 per tonne per year from April 2008, landfill tax has increased to £32 per tonne⁶.

There is also a growing public awareness of waste and packaging issues. This is evident in the increase in municipal recycling to 31% in 2006/07⁷ and the findings of the 2007 Defra 'Public attitudes and behaviours towards the environment' survey, which found that eight out of 10 people agreed that they have a duty to recycle and 39% stated that they may not buy over-packaged products⁸.

Targets 2007

- Consider consolidation of waste management contracts to facilitate an improvement in accounting systems for general and recycled waste streams. ◀
- Initiate projects to support reduction in primary packaging on own-brand food products by 15% by 2010. =
- Reduce the environmental impact of carrier bags by 25% by 2008. ✔
- Investigate the environmental impacts of a variety of packaging materials to identify the most sustainable packaging options for The Co-operative Food's own-brand products. ✔
- Increase paper recycling at The Co-operative Travel. ✔
- Launch an educational facility at the Manchester head office complex recycling centre. ✔
- Maintain a downward trend in total waste arisings⁹, and achieve a 70% re-use/recycling rate across The Co-operative Financial Services' main offices. ▶▶▶¹⁰

Targets 2008

- Extend the consolidation of waste management contracts across The Co-operative Group businesses to facilitate a further improvement in accounting systems for general and recycled waste streams.
- Designate responsibilities for waste data accounting within The Co-operative Pharmacy, The Co-operative Travel and The Co-operative Funeralcare.
- Ensure that less than 50% of total waste arisings are landfilled by 2013¹¹.
- Increase the amount of waste recycled through the Manchester recycling centre.
- Develop further projects to support the reduction in The Co-operative Food's own-brand packaging by 15% by 2010.
- Continue to increase the amount of cardboard and polythene recycled by The Co-operative Food.
- Investigate the use of alternative waste management technologies, such as in-vessel composting and anaerobic digestion.
- Reduce total waste arisings⁹ and maintain a 70% re-use/recycling rate across CFS' main offices.
- Reduce the number of carrier bags distributed by The Co-operative Food by 50% by May 2009, based on 2006 levels.

✔ Target achieved

= On track

▶▶▶ Close to target

◀ Behind schedule

Materiality and strategy

The Co-operative Group is responsible for both operational waste produced directly from its processes and for the waste it passes on to its customers in the form of packaging. The majority of the Group's waste arisings are associated with The Co-operative Food. CFS and the Group's head office complex are the main generators of office waste.



The Group's Environmental Strategy, which is agreed via its member-controlled Group Values & Principles Committee (page 8), identifies better waste management as one of the Group's top two environmental priorities. Furthermore, in the 2007 Co-operative Food Ethical Policy consultation (page 9), 97% of members endorsed the Group's commitment to reducing waste arisings from its operations, increasing recycling and reducing own-brand packaging. In addition, as identified in the most recent CFS Ethical Policy consultations, 98% of The Co-operative Bank's customers wish to see their money supporting businesses involved in recycling and sustainable waste management, whilst over 90% of The Co-operative Insurance's customers wish to see it encourage the businesses, in which it invests, to reduce their environmental impact and to consider more sustainable products and services.

The Group's approach to waste management focuses on waste reduction (both internally and in terms of packaging passed on to customers), increasing re-use and recycling rates, improving the degradability and biodegradability of waste, and the provision of finance for more sustainable waste management options. It is recognised that further work is necessary in 2008 to reduce total waste arisings and increase the proportion of waste re-used/recycled across the Group. In addition, further consolidation of waste management contracts will be required to improve the accuracy of waste reporting and ensure compliance with relevant waste legislation.

Performance overview

The Group's total reported waste arisings grew by 10% in 2007, an increase of 7,600 tonnes. However, this apparently large increase is mostly due to improvements in accounting systems. Reported arisings of general waste disposed and waste re-used/recycled also increased, by 7% and 13% respectively. Again, this is mainly due to improved accounting systems. The percentage of waste re-used/recycled improved slightly from 46% in 2006 to 48% in 2007.

Taking improvements to accounting systems into consideration, it appears that the Group's waste arisings, general waste to landfill, tonnage of waste re-used/recycled and re-use/recycling rate were more or less unchanged from 2006 to 2007. Comparing like-for-like data for the Group (ie, excluding data for United Co-operatives) this is also the case since the 2005 baseline.

In light of the merger between The Co-operative Group and United Co-operatives, an attempt to 'normalise' waste data, through expressing it, for the first time, in terms of tonnes of waste arisings and waste disposed per £m of turnover, has been made. Using this methodology, moderate improvements have been achieved between 2005 and 2007; however, this is due to growth in turnover as opposed to improvements in waste management.



	2005	2006	2007
Waste arisings (tonnes) per £m of turnover ¹⁸	11.6	10.2	10.0
Waste disposed (tonnes) per £m of turnover ¹⁹	5.9	5.5	5.2

Accounting

Following the further improvements in the completeness of waste accounting made in 2007, The Co-operative Group is now able to produce a reasonably accurate account of waste arisings across the majority of its businesses. For the first time, determinations have been made for: waste to landfill from The Co-operative Farms, The Co-operative Legal Services and The Co-operative Clothing; clinical (healthcare²⁰) waste from The Co-operative Funeralcare; and animal by-products and food waste disposed from The Co-operative Food.

Furthermore, the accuracy of the waste to landfill tonnage for The Co-operative Food²¹, The Co-operative Pharmacy and The Co-operative Travel has improved as a result of determination of more accurate converters, which are used to calculate the weight of waste sent to landfill²². Estimates of waste to landfill have been made for E-Store and Sunwin Motor Group. The waste to landfill tonnage from The Co-operative Funeralcare in 2007 is less accurate than that in 2006 as it is based on an extrapolation of the 2006 data to take into account the increase in the number of branches in 2007.

Improvements in the completeness of recycling data have been made in 2007. For the first time, determinations have been made for: electrical items recycled by E-Store; paper recycled from The Co-operative Insurance's regional sales offices, home-based Financial Advisers and The Co-operative Legal Services; cardboard recycled by The Co-operative Pharmacy and The Co-operative Clothing; and fluorescent tubes recycled by The Co-operative Travel, The Co-operative Food and Sunwin Motor Group.

Reducing waste

The Co-operative Group (like most large UK retailers) has been a signatory to the Courtauld Commitment since 2005, which seeks to 'design-out' packaging waste growth, deliver absolute reductions in packaging weight and tackle the amount of food that consumers throw away. The Co-operative Food was the first retailer to successfully run a packaging reduction programme with the Waste and Resources Action Programme (WRAP)²³, whereby own-brand tomato puree packaging was redesigned to save 8.5 tonnes of card per annum.

In 2006, a Packaging Policy for Co-operative own-brand food products was developed, which prioritises absolute packaging reductions and governs acceptable packaging materials based on food safety and environmental considerations²⁴.

Packaging reductions achieved in 2006 included:

- the development of the UK's first sub-300g 70cl spirits bottle, saving 20 tonnes of glass per annum based on annual sales of all own-label spirits in 70cl bottles, which was the winner of the Sustainable Pack Award at the WRAP-sponsored UK Packaging Awards 2007;
- a reduction in the thickness of salad pack bags from 35 to 30 microns, resulting in a saving of eight tonnes per annum; and
- the transfer of own-brand porridge oats from boxes to plastic bags, saving a tonne of packaging per annum.

In February 2007, The Co-operative Food staged a conference to communicate the Packaging Policy to 500 own-brand suppliers and, subsequently, announced a target to reduce own-brand primary packaging by 15% by 2010 based on 2006 levels²⁵. In late 2007, The Co-operative Food restated its 15% packaging reduction target to include transit packaging and, in March 2008, reported to WRAP a 2% reduction in own-brand primary packaging and a 9% reduction against the new combined target under the Courtauld Commitment. Packaging reduction projects developed in 2007 include:

- the reduction in weight of 26 own-brand wine bottles, projected to save 445 tonnes of glass per annum;
- the reduction in weight of a selection of plastic milk bottles, projected to save 22 tonnes of plastic per annum;
- the reduction in weight of salad dressing bottles, expected to save 15 tonnes of glass per annum;
- the reduction in weight of the cardboard sleeve on Indian ready meals, projected to save eight tonnes of cardboard per annum;
- the removal of shrink wrap from whole cucumbers, expected to save eight tonnes of plastic per annum;
- the reduction in weight of beef mince trays, projected to save eight tonnes of plastic per annum; and
- the reduction in weight of premium burger trays, projected to save four tonnes of plastic per annum.

Following the restatement of the packaging reduction target to include transit packaging, data has been captured on a project initiated in late 2006, which introduced the use of reusable plastic fresh produce crates to replace single-use cardboard transit packaging. In 2007, 2,835 tonnes of cardboard were saved through this initiative.

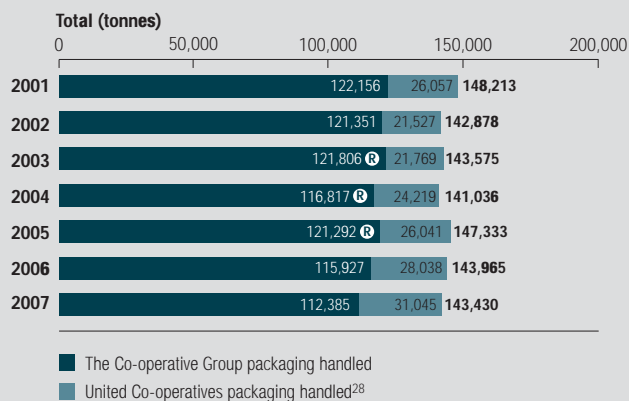
Despite an increase in sales turnover of £1,160m at The Co-operative Food and The Co-operative Pharmacy since 2001, total packaging levels (branded and own-branded) have remained relatively stable at around 145,000 tonnes, as can be seen overleaf. As glass accounted for 49% of primary packaging in 2007, it will continue to be a priority area for packaging reduction in 2008.



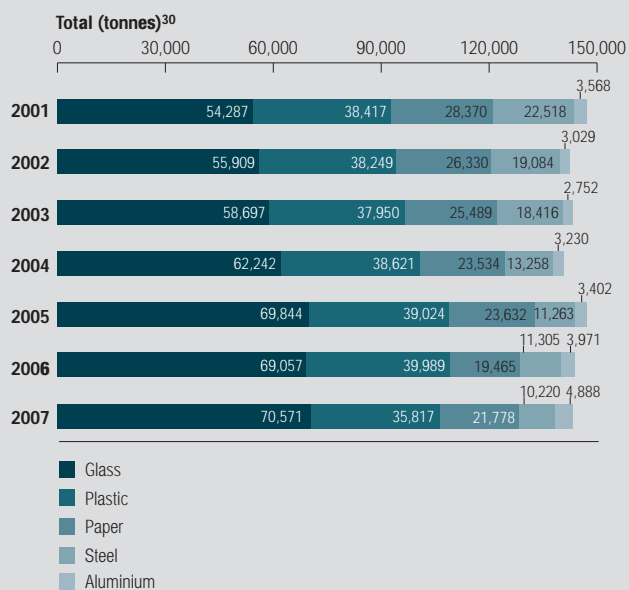
445 tonnes

of glass is the projected amount saved by the reduction in weight of 26 own-brand wine bottles

Total primary packaging handled (tonnes)



Primary packaging handled by material (tonnes)²⁹



The Co-operative Food is a signatory to the Government initiative to reduce the environmental impact of plastic carrier bags by 25% by 2008 and, in March 2008, reported to WRAP a 10.5% reduction in impact, based on weight, of single-use carrier bags in 2007 compared to 2006. This was achieved through the increased use of plastic 'bags for life' and the Fairtrade cotton carrier bag, which was launched in February 2007; the decreased use of single-use bags; and an increase in the number of lighter single-use bags. Analysis of carrier bag ordering figures for the period October 2007 to March 2008, compared to the same six-month period in 2006/07, showed a 38% reduction in carrier bags ordered by the Regional Distribution Centres.

In March/April 2008, The Co-operative Food trialled a carrier bag reduction model in Hull. The six-week trial, which took place in all 11 of The Co-operative Food stores in Hull, promoted alternatives to single-use plastic carrier bags, such as the Fairtrade cotton bag and the plastic 'bag for life', and saw the launch of the UK's first certified home compostable carrier bag. Following analysis of the results of this trial, a decision will be made as to whether to expand the model to all The Co-operative Food stores to reduce the 550 million single-use carrier bags presently used by customers each year. The Co-operative Food is also supporting community-led initiatives to reduce single-use plastic carrier bags in Northampton, Hebden Bridge in West Yorkshire, Lyme Regis in Dorset, Saltash in Cornwall, Clare in Suffolk, Great Dunmow in Essex and Hay-On-Wye in Herefordshire.

Re-using waste

Through the use of reusable plastic crates for transportation and display of fresh produce, The Co-operative Food saved 2,835 tonnes of cardboard in 2007.

In 2007, CFS donated/sold for re-use 3,100 items (some 35 tonnes) of IT equipment, including monitors/terminals, PCs, laptops and printers. Donated items were sent to charities, such as Digital Links International and the NSPCC, through Tier 1 Asset Management Ltd²⁶. In addition, The Co-operative Group passed 400 items, equivalent to five tonnes, of IT equipment to their asset management contractor for re-use.



Recycling waste

Cardboard and polythene

The largest streams of waste that are recycled by The Co-operative Group are cardboard and polythene, generated at the back of store at The Co-operative Food. In 2007, The Co-operative Food recycled 36,091 tonnes of cardboard and polythene²⁷, accounting for 91% of the total tonnage of waste re-used/recycled. Whilst there is no central record of customer recycling facilities at The Co-operative Food stores, a survey was undertaken in 2006 of 1,600 stores, to which 1,363 replied. This identified 102 with glass recycling facilities, 79 with aluminium facilities, 35 with plastic facilities and 87 with textile recycling facilities. A proportion of the textile recycling facilities are provided by Textile Recycling for Aid and International Development (TRAID). Through use of the TRAID facilities at Group sites, customers have recycled 74 tonnes of unwanted clothing since 2005.

Environmental regulation

The Co-operative Group manages compliance with the Producer Responsibility Obligations (Packaging Waste) Regulations 2007³¹ on behalf of much of the UK retail Co-operative Movement. Under these regulations, The Co-operative Group is obligated³² to determine how much packaging material the Movement passes on to customers and to produce evidence of a set amount of recycling and recovery for each of the Co-operative Societies.

In 2007, The Co-operative Group entailed obligations in all of the six material-specific categories; paper (7,193 tonnes), glass (26,010 tonnes), aluminium (825 tonnes), steel (3,340 tonnes), plastic (4,538 tonnes) and wood (four tonnes). In addition, the Group also had a balance recycling and recovery obligation of 8,224 tonnes³³. These recycling obligations are met through the purchase of Packaging Recovery Notes (PRNs), largely from the Wastepack compliance scheme.

With the introduction of the Waste Electrical and Electronic Equipment (WEEE) Regulations³⁴ in January 2007, producers and retailers in the UK are now responsible for financing the environmentally sound disposal of WEEE. The Co-operative Group entails obligations as both a producer and distributor³⁵ of electrical and electronic equipment and is a member of the Valpak producer compliance scheme and retailer take-back scheme to ensure it meets the requirements of the regulations. WEEE generated by the Group's business activities will be taken back for recovery, re-use or recycling by suppliers as part of contractual agreements.

In 2007, The Co-operative Group recycled 1,320 tonnes of WEEE, including 1,246 tonnes of electrical equipment from E-Store; 54 tonnes of IT equipment from CFS; 11 tonnes of IT equipment from the Manchester head office complex; and nine tonnes of IT equipment from Sunwin Motor Group.

Manchester recycling centre

In addition to the recycling obligations placed on The Co-operative Group by environmental legislation, operational waste continued to be recycled through the Manchester recycling centre. In 2007, the centre recycled a total of 1,249 tonnes (2006: 1,247 tonnes) of the Group's waste³⁶, as well as 44 tonnes of waste from other Manchester-based organisations. The recycling centre's activities were recognised through an Early Day Motion in Parliament in February 2007³⁷. Work is underway to increase the amount of materials recycled through the centre in 2008. Furthermore, additional recycling to that sorted by the Manchester recycling centre took place across the Group businesses in 2007, including the recycling of:

- 246 tonnes of various streams, including furniture and fluorescent tubes from CFS;
- 576 tonnes of wood and 1,281 litres of solvent from The Co-operative Funeralcare;
- 42 tonnes of travel brochures and 0.6 tonnes of fluorescent tubes from The Co-operative Travel. Increased paper recycling at The Co-operative Travel branches has been achieved; however, this is only as a result of recycling already occurring at a proportion of the former United Co-operatives' branches as opposed to the initiation of a new recycling contract;

- 31 tonnes of furniture and 0.6 tonnes of fluorescent tubes from the Manchester head office complex;
- 22 tonnes of fluorescent tubes from The Co-operative Food;
- 16 tonnes of cardboard from The Co-operative Pharmacy branches;
- eight tonnes of paper from the former United Co-operatives' head office;
- six tonnes of paper from The Co-operative Legal Services;
- 1.5 tonnes of cardboard from The Co-operative Clothing;
- 0.3 tonnes of fluorescent tubes from Sunwin Motor Group; and
- 34,786 plastic containers from The Co-operative Farms through the Agri-cycle scheme, an estimated 95% of the total purchased³⁸.

BENCHMARK In 2007, CFS recycled 1,360 tonnes (2006: 1,070 tonnes) of its waste, resulting in an increase in CFS' re-use/recycling rate from 67% in 2006 to 72% in 2007. This recycling rate is considerably above that of the average office's 7.5%³⁹.

Recycled content in products and packaging

In addition to the recycling of waste generated by the Group's business activities, ensuring that products sold contain a high recycled content is another area of focus. Two products – own-brand 100% recycled toilet tissue and kitchen towels – currently utilise waste paper from the Manchester recycling centre as part of a closed loop scheme. Recycled materials are also used in some packaging lines, including tissues, washing powder, certain bag-in-box cereals and the majority of wine bottles, with green glass bottles from one supplier containing 90% recycled glass. In addition, in autumn 2008, a supplier will launch plastic milk bottles with 10% recycled content, with a view to increasing to 30% recycled content by 2009.

The Co-operative Food, along with other UK retailers, has been working with WRAP and the British Retail Consortium to develop a new packaging recycling logo. Although its use is voluntary, it is hoped that industry-wide standardisation of the multiple recycling logos to a single, easily identifiable one, will reduce confusion over whether packaging can be recycled⁴⁰.

Waste disposal

The Co-operative Food landfilled 34,483 tonnes of waste in 2007⁴¹, of which it is estimated that 10,100 tonnes is food waste. Waste landfilled from The Co-operative Food accounted for 80% of the Group's total waste disposal. The remaining 20% is attributed to The Co-operative Pharmacy (2,530 tonnes)⁴², The Co-operative Travel (1,083 tonnes)⁴³, The Co-operative Funeralcare (1,101 tonnes), CFS' main offices (534 tonnes)⁴⁴, E-Store (449 tonnes), the Manchester head office complex (270 tonnes), Sunwin Motor Group (167 tonnes), The Co-operative Farms (156 tonnes)⁴⁵, The Co-operative Clothing (31 tonnes) and The Co-operative Legal Services (15 tonnes).

In addition to waste disposed directly to landfill, The Co-operative Funeralcare sent 98 tonnes of clinical waste and one tonne of spray booth filters to be autoclaved/incinerated; The Co-operative Food sent 2,219 tonnes of animal by-products⁴⁶ to be rendered/incinerated; and Sunwin Motor Group sent 183 tonnes of hazardous waste, including waste oils and residues, antifreeze, batteries and oil filters, to be reprocessed. No data is available for clinical/pharmaceutical waste from The Co-operative Pharmacy.

Comparing the three years of available data, The Co-operative Food shows an improvement in waste arisings per £m of turnover from 19.9 tonnes in 2005, to 18.3 tonnes in 2006 and 15.4 tonnes in 2007, whilst both The Co-operative Pharmacy and CFS have achieved a stable tonnage of waste disposed per £m of turnover of around 3.7 to 4.7 tonnes and 0.2 to 0.3 tonnes respectively. The Co-operative Travel has also shown a stable tonnage of waste disposed per £m turnover, for the two years of available data, of around 4.1 to 5 tonnes.

Ecological profile of packaging

The Co-operative Food has, for a number of years, worked to render packaging more degradable. Research⁴⁷ shows that, whilst degradable packaging is still fossil fuel-based, it will degrade after four years to carboxylic acids that can be readily bioassimilated. The Co-operative Food introduced Britain's first degradable⁴⁸ plastic carrier bag in 2002, and was, subsequently, the first retailer to introduce these materials into mainstream grocery packaging. The Co-operative Food sliced bread bags and self-select fresh produce bags were made degradable in 2004 and 2006, respectively.

The Co-operative Food is committed to taking a wider sustainability approach to packaging (ie, one that goes beyond light-weighting) and considers issues such as toxicity, degradability and recyclability in the choice of packaging of own-brand products. In 2007, as part of the development of the Packaging Policy⁴⁹, the following conclusions were reached and are reflected in the requirements placed on own-brand suppliers in the Packaging Policy:

- The weight of packaging is not necessarily an indication of the sustainability of the component materials, and weight reductions made should not be at the expense of increasing other environmental impacts, such as toxicity of the materials, or the opportunity to increase the recyclability/recycled content.
- The introduction of biodegradable packaging has only limited advantages, due to the lack of widespread home composting facilities and concerns that many biopolymers (eg, polylactic acid) may not actually break down in composting and landfill facilities⁵⁰. In addition, there are concerns that the use of biopolymers may also contaminate plastic recycling streams.
- A rationalisation of plastic polymers (excluding films) to polyethylene terephthalate (PET) and polythene (PE) would assist in increasing plastic recycling rates as this would make best use of the UK's recycling infrastructure.
- Simplification of packaging through the removal of composite materials, or multiple layers of different materials, should assist in increasing recycling rates.

CFS and ethical finance

The bank's customer-led Ethical Policy includes a commitment to support businesses involved in recycling and sustainable waste management. Based on this commitment, the bank declines support for incineration where mixed municipal waste acts as a feedstock and/or community 'buy-in' is absent. During 2007, 12 finance opportunities were referred to the Ethical Policy Unit in connection with waste, of which two were declined at a cost of £520,000 in terms of estimated income foregone in 2007.

In contrast, provision of a £14m syndicated loan was approved for a waste processing plant using a Mechanical Biological Treatment (MBT) process, wherein recyclable materials were extracted and anaerobic digestion employed. In addition, a £10m syndicated loan was approved for a business engaged in electricity generation from biomass plants fuelled from poultry waste. Biomass is considered a form of renewable energy. Banking services were also approved for a business engaged in composting and for two businesses engaged in metal recycling.

Waste-related business declines 2007	Estimated income foregone 2007
Waste management (two instances) Two separate contributions of £15m to syndicated facilities for businesses engaged in waste management. In the first instance, business had government consent to build UK's largest incinerator. Concern over use of recyclable waste as feedstock, and evidence of community opposition. In the other instance, business operated energy-from-waste incinerator using recyclable waste (eg, paper) as feedstock.	£520,000

Community involvement



In September 2007, The Co-operative Group opened Waste Works, an education facility based at the Manchester recycling centre. Waste Works promotes effective waste management, and raises awareness of wider environmental issues such as climate change and the use of renewable energy at The Co-operative Group.

The Waste Works facility was designed to be as waste-free as possible, with tables made from recycled plastic bottles and Forest Stewardship Council (FSC) plywood. It is heated by a biomass boiler run on FSC wood pellets.

The centre is managed by the environmental charity Waste Watch⁵¹ and offers a curriculum-linked education programme to Key Stage 2 school pupils (aged 7–11) and community groups, and, as of March 2008, has had over 2,000 visitors. As well as taking part in a range of educational activities, visitors learn about the closed loop system, whereby waste is collected from the head office complex, shredded and baled and then converted into toilet and kitchen tissue which is sold in The Co-operative Food stores.

The centre was officially launched by Hazel Blears MP, Secretary of State for Communities and Local Government, in March 2008.



Influence and action

Packaging and product wastage

In September 2007, The Co-operative Group responded to a Defra consultation on the Report of the Food Industry Sustainability Strategy Champions Group on Waste⁵², wherein the Group called for independent lifecycle analysis of common packaging materials to assist in identifying the most sustainable packaging options for a given application. The Group welcomed proposed measures to improve the recycling infrastructure and proposals to further research smart packaging, which has the ability, for example, to identify failures in the supply chain that lead to product wastage.

1 www.sustainable-development.gov.uk/publications/pdf/achieving-2002.pdf

2 www.defra.gov.uk/environment/statistics/waste/wrindustry.htm

3 Sustainable Development Commission (2008) Green, Healthy and Fair, p.48

4 www.defra.gov.uk/environment/statistics/wastats/bulletin07.htm

5 www.defra.gov.uk/environment/waste/strategy/index.htm

6 http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageExcise_InfoGuides&propertyType=document&d=HMCE_PROD1_027233. Excluding 'inactive wastes' where the landfill escalator is charged at £2.50 per tonne.

7 www.defra.gov.uk/environment/statistics/wastats/bulletin07.htm

8 www.defra.gov.uk/environment/statistics/pubatt/index.htm

9 Excluding one-off disposals associated with office closures.

10 CFS achieved a 72% re-use/recycling rate in 2007, but was unable to maintain the downward trend in total waste arisings, partially due to an improvement in waste accounting that allowed for determinations for paper recycling from home-based Financial Advisers and The Co-operative Insurance branches to be made for the first time.

11 In line with the British Retail Consortium's Better Retailing Climate agreement.

12 75% complete, with large reliance on estimates at The Co-operative Food.

13 80% complete, with reliance on extrapolation at The Co-operative Pharmacy, The Co-operative Funeralcare and The Co-operative Travel.

14 80% complete, with reliance on extrapolation at The Co-operative Pharmacy and The Co-operative Travel.

15 CFS total waste arisings in 2007: 1,894 tonnes (2006: 1,604 tonnes; 2005: 1,629 tonnes; 2004: 2,006 tonnes and 2003: 2,155 tonnes).

16 CFS general waste disposed in 2007: 534 tonnes (2006: 534 tonnes; 2005: 469 tonnes; 2004: 657 tonnes and 2003: 690 tonnes).

17 CFS waste re-used/recycled in 2007: 1,360 tonnes (2006: 1,070 tonnes; 2005: 1,160 tonnes; 2004: 1,349 tonnes and 2003: 1,465 tonnes).

18 Like-for-like comparison of turnover for business areas where waste arisings data was available.

19 Like-for-like comparison of turnover for business areas where waste disposed data was available.

20 The Defra Waste Strategy for England replaces the term clinical waste with healthcare waste.

21 As a result of the weighing of 6,000 Co-operative Food bins in 2007, to develop a more robust converter that is used to calculate the weight of waste disposed to landfill. In addition, the accounting systems now take into account store acquisitions and disposals occurring throughout the year, and are based on actual number of bin lifts per annum, per store. This will be expanded to former United Co-operatives stores in 2008.

22 As was the case in 2006, total waste to landfill tonnages for The Co-operative Pharmacy and The Co-operative Travel are based on extrapolation of known data.

23 WRAP is a Government body charged with creating efficient markets for recycled materials and products, while removing barriers to waste reduction, re-use and recycling. WRAP's focus for the retail sector over 2006/08 is to secure reductions of 80,000 tonnes per year of packaging waste, in order to offset predicted growth. www.wrap.org.uk

24 www.co-operative.coop/corporate/sustainability/packagingpolicy

25 Based on 115,927 tonnes of primary packaging handled by The Co-operative Food in the baseline year, 2006, of which it is estimated that 38,000 is own-brand packaging.

26 www.tier1.com

27 Derived by assuming The Co-operative Group accounts for 79.54% of the Co-operative Retail Trading Group (CRTG) collections in 2007.

28 Data includes tonnages from Co-operative societies that ultimately merged with United Co-operatives. These include Yorkshire Co-operative Society in 2002 and Leeds Co-operative Society and Sheffield Co-operative Society in 2006.

29 Graph excludes wood and other packaging materials, such as cork, which make up very small tonnages.

30 Data includes tonnages from former United Co-operatives and Co-operative societies that ultimately merged with United Co-operatives. These include Yorkshire Co-operative Society in 2002 and Leeds Co-operative Society and Sheffield Co-operative Society in 2006.

31 Ultimately derived from the European Parliament and Council Directive 94/62/EC on Packaging and Packaging Waste.

32 As is any retailer that handles more than 50 tonnes of packaging and has a turnover in excess of £2m per annum. The Co-operative Group is obligated as a 'seller' at 48%, pack/filler at 37% and an importer at 100%. The 2007 targets for materials were: glass (69.5%), paper (67%), aluminium (31%), steel (57.5%), plastics (24%) and wood (20%). Overall recovery (which includes energy recovery

and composting) is set at 67%, of which a minimum of 92% must be achieved via recycling. The Producer Responsibility Obligations (Packaging Waste) Regulations 2007, Defra.

33 Under the Regulations, obligations are calculated on the packaging handled in the previous year. The obligation in 2007 was, therefore, based on 115,927 tonnes of packaging handled in 2006.

34 www.opsi.gov.uk/si/si2006/ukssi_20063315_en.pdf

35 Producer obligation based on 8,532 items of own-brand Christmas lights and distributor obligation based on 382,037 items of electrical and electronic equipment sold in 2007.

36 Excludes proportion of the tonnage recycled in January 2007, which was attributed to waste stored in December 2006 whilst the recycling centre was closed for a refit. This tonnage was reported in The Co-operative Group Sustainability Report in 2006. 2007 figure includes various recyclates from CFS' main offices (1,024 tonnes), the Manchester head office complex (168 tonnes), The Co-operative Funeralcare and The Co-operative Travel major occupancies (36 tonnes), and The Co-operative Pharmacy head office (21 tonnes).

37 www.publications.parliament.uk/pa/cm/cmmed/70222e01.htm

38 www.agri-cycle.uk.com. Tonnage data is unavailable for the plastic waste recycled by The Co-operative Farms; therefore, it is not included in total waste re-used/recycled headline figures.

39 www.envirowise.gov.uk/download.aspx?o=118465 GG256 Green Efficiency.

40 Sanderson, P. (2008) Recycling Logo aims to cut confusion, Materials Recycling Week, 11 April 2008, p.6.

41 Extrapolated from a 99% sample.

42 Extrapolated from a 60% sample.

43 Extrapolated from a 52% sample.

44 Excludes the 89 bank branches.

45 Extrapolated from a 94% sample.

46 As defined in The Animal By-Products Regulations 2005. Data extrapolated from The Co-operative Group data for former United Co-operatives' stores.

47 Wiles, DM and Scott, G (2006). Polyolefins with controlled environmental degradability. Polymer Degradation and Stability vol. 91 (2006) pages 1581–1592.

48 Conventional polyethylene is bio-inert, and highly resistant to assimilation by micro-organisms. The introduction of an additive system, in the production of Group bags and other plastic packaging, catalyses the natural process of oxo-biodegradation and greatly accelerates disintegration in landfill.

49 www.co-operative.coop/corporate/sustainability/packagingpolicy

50 www.guardian.co.uk/environment/2008/apr/26/waste/pollution

51 www.wastewatch.org.uk

52 www.defra.gov.uk/farm/policy/sustain/fiss/pdf/report-waste-may2007.pdf